



UNDERGRADUATE CALENDAR

2021·2022

CONCORDIA

University Mailing Addresses

Sir George Williams Campus
1455 De Maisonneuve Blvd. W.
Montreal, Quebec
H3G 1M8

Loyola Campus
7141 Sherbrooke St. W.
Montreal, Quebec
H4B 1R6

Web Address
concordia.ca

Communication of Information to Provincial Ministère de l'Éducation et de l'Enseignement supérieur

Under the terms of an agreement between Concordia University and the provincial Ministère de l'Éducation et de l'Enseignement supérieur, approved by the Quebec Access to Information Commission, Concordia University is required to transmit to the Ministry some or all of the following information concerning its students: the student's permanent code, complete name, date of birth, gender, father's complete name, mother's complete name and place of birth. This information is being transmitted, at the Ministry's request, in order to provide the Ministry with the tools to properly calculate funding for Concordia University, for planning purposes and to ensure the proper management of public funds.

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Undergraduate Calendar

2021-2022



CONCORDIA UNIVERSITY

Mission

Concordia University is welcoming, engaged, and committed to innovation and excellence in education, research, creative activity and community partnerships. It dares to be different and draws on its diversity to transform the individual, strengthen society and enrich the world.

Vision

Concordia's vision is to rank among Canada's top five comprehensive universities within the next decade, and to be a first choice for students and faculty locally, across Canada, and internationally in a wide variety of defined areas of research and study.

Values

Concordia's core values stem from those long prized by its founding institutions. Concordia has adopted the motto of the city of Montreal, *Concordia salus*, which speaks to well-being through harmony. The union of two very different institutions of higher education has led to an exceptionally successful synthesis of compatible and timely values.

Excellence

Concordia values the curiosity and engagement of its faculty, staff, and students. Curiosity about the world around us, respectful engagement with those who inhabit it, and strong determination to improve it lead to productive exploration of current understandings, a rich spectrum of creative activity and practice, and the creation and dissemination of new knowledge.

Opportunity

Concordia values the openness and respect necessary to provide opportunities to a highly diverse student and faculty population. Diversity at Concordia is interpreted broadly: for example, in addition to embracing diversity in ethnicity, gender, language, and accessibility, Concordia provides students with different and original ways of exploring their interests. Enabling faculty, staff and students to make a progressive impact on their world in ways that respect and engage the uniqueness of each individual is a hallmark of Concordia.

Quality of Life

Concordia values a secure and respectful learning environment and workplace. Concordia is committed to promoting a healthy, safe and sustainable campus and to enhancing the quality of life of the community in which we live.

The Undergraduate Calendar is an official University document.

It defines academic programs and the regulations that pertain to them. The University Senate reserves the right to modify the academic programs and regulations at its discretion after the posting date of the Calendar. In addition, the University reserves the right to modify the posted scale of tuition and other student fees and to limit the number of students who enrol in any program or course at any time before the beginning of an academic term. Moreover, the information contained in the Undergraduate Calendar or any other University document related to academic programs, deadlines, and regulations is subject to verification and correction by the Office of the Registrar and the School of Graduate Studies.

Not all courses listed in this Calendar are offered this year. Students are advised to consult the Undergraduate Class Schedule for a timetable of courses offered.

Please note that the Undergraduate Calendar is available solely online and constitutes the official Undergraduate Calendar of the University. The most recent version of the Calendar is the only version currently in effect. Students are responsible for ensuring that graduation requirements are met, in accordance with the requirements set out in the Calendar corresponding to the year of admission, except for Engineering programs. Students in the Engineering programs are required to graduate having met the substantial equivalent of the curriculum in force in the winter term prior to degree conferral. Archived Calendars may be consulted using the "Archived Calendars" link.

This Calendar is intended to assist readers to understand the academic and administrative structure and policies and procedures of the University, and to describe the academic programs offered. The material has been submitted by academic units and administrative departments. Every effort has been made to ensure that all general information and course references are accurate as of the date of posting, but these are subject to possible verification and correction. By the act of registration each student becomes bound by the policies and regulations of Concordia University, including the Faculty in which the student is registered. Students are responsible for familiarizing themselves with the general information, rules and regulations contained in the Calendar, and with the specific information, rules and regulations of the Faculty or Faculties in which they are registered or enrolled or seek registration or enrolment, as well as the specific requirements of each degree or certificate sought. It is the student's responsibility to ensure that the courses chosen are appropriate to the program requirements.

Concordia University disclaims all responsibility and liability for loss or damage suffered or incurred by any student or other party as a result of delays in or termination of its services, courses, or classes by reason of force majeure, including fire, flood, riots, war, strikes, lock-outs, damage to University property, financial exigency and/or other events beyond the reasonable control of the University. Concordia University disclaims any and all liability for damages arising as a result of errors, interruptions or disruptions to operations or connected with its operations or its campuses, arising out of computer failure or non-compliance of its computing systems.

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About the University

Concordia University is one of the largest urban universities in Canada. It has two campuses — one in downtown Montreal (Sir George Williams), the other in a residential setting in the city's west end (Loyola).

Established in 1974 with the merger of Loyola College and Sir George Williams University, Concordia University offers more than 200 graduate and undergraduate programs in four Faculties (Arts and Science, John Molson School of Business, Gina Cody School of Engineering and Computer Science, and Fine Arts) and a School of Graduate Studies. At the undergraduate level, the University offers BA, BAdmin, BComm, BCompSc, BEd, BEng, BFA, BScAT and BSc degrees, as well as certificate programs.

For graduate programs, please see concordia.ca/academics/graduate/calendar/current.

For more information about the University, its history and its founding institutions, please see concordia.ca/about.

The University also has a Centre for Continuing Education which offers a variety of non-credit educational programs. For more information about the Centre for Continuing Education, please see concordia.ca/cce.

Gender Neutral Degree Nomenclature

Students may choose to graduate with degree titles that are gender neutral and refer to the diplomas themselves (Baccalaureate, Magisteriate, and Doctorate) or with the traditional nomenclature (Bachelor, Master, and Doctor).

Graduates who have previously been awarded a Concordia degree with the traditional nomenclature may request that their degree be re-issued in the gender neutral nomenclature.

Academic Calendar

Section 11

ACADEMIC CALENDAR

Section 11

The Academic Calendar is subject to change. Updated information will be available from the Birks Student Service Centre. For dates pertaining to registration and non-standard summer sessions, please consult the 2021-22 Term Dates and Deadlines webpage concordia.ca/students/registration/term-dates-deadlines, the Course Registration webpage or visit the Birks Student Service Centre. For financial deadlines see concordia.ca/admissions/tuition-fees.

Deadlines falling on weekends* or holidays will be extended to the next working day.

*Except for academic withdrawal deadlines.

REGULAR SESSION 2021-22 AND SUMMER SESSION 2021

2021

MARCH	Monday, March 1	Mid-term break begins.
	Monday, March 1	Replacement examinations begin.
	Monday, March 1	Supplemental examinations begin for courses ending in December 2020 (graduating students only).
	Monday, March 1	Last day to apply for admission to undergraduate programs — Full-time regular session 2021-22.
	Monday, March 1	Last day to apply for degree transfer — Fall term 2021 (for currently registered students to transfer into a different degree in any Faculty).
	Wednesday, March 3	Replacement and supplemental examinations end.
	Thursday, March 4	University closed.
	Friday, March 5	President's Holiday — University closed.
	Sunday, March 7	Mid-term break ends.
	Tuesday, March 9	Registration start date for students with 0 to 9 credits to completion and for co-op students and varsity athletes — Regular and summer sessions 2021-22.
	Wednesday, March 10	Registration start date for students with 10 to 21 credits to completion — Regular and summer sessions 2021-22.
	Thursday, March 11	Registration start date for students with 22 to 33 credits to completion — Regular and summer sessions 2021-22.
	Friday, March 12	Registration start date for students with 34 to 42 credits to completion — Regular and summer sessions 2021-22.
	Monday, March 15	Registration start date for students with 43 to 54 credits to completion — Regular and summer sessions 2021-22.
	Tuesday, March 16	Registration start date for students with 55 to 63 credits to completion — Regular and summer sessions 2021-22.
	Wednesday, March 17	Registration start date for students with 64 to 72 credits to completion — Regular and summer sessions 2021-22.
	Thursday, March 18	Registration start date for students with 73 to 87 credits to completion — Regular and summer sessions 2021-22.
	Friday, March 19	Registration start date for students with 88 and more credits to completion — Regular and summer sessions 2021-22.
	Monday, March 22	Registration start date for Visiting students and for returning and newly authorized Independent students — Summer session 2021.

	Friday, March 26	Last day to register with the Access Centre for Students with Disabilities and receive exam accommodations for the winter 2021 final examination period.
	Monday, March 29	Last day for academic withdrawal (DISC) from two-term and winter-term courses.
APRIL	Thursday, April 1	Last day to apply for Quebec resident status for winter term 2021.
	Friday, April 2	University closed (see April 22, 2021).
	Saturday, April 3	University closed (see April 22, 2021).
	Sunday, April 4	University closed.
	Monday, April 5	University closed (see April 21, 2021).
	Tuesday, April 13	Last day for instructor-scheduled tests or examinations.
	Tuesday, April 20	Last day of classes — Fall/winter and winter terms 2020-21.
	Tuesday, April 20	Registration start date for Visiting students and for newly admitted undergraduate students — Regular session 2021-22. Students admitted for September 2021 should register for winter-term courses at the same time as fall-term courses.
	Wednesday, April 21	Make-up day for classes scheduled on April 5.
	Thursday, April 22	Make-up day for classes scheduled on April 2 and 3.
MAY	Saturday, April 24	Examinations begin.
	Friday, April 30	Aide financière aux études (AFE) end of funding for winter term.
	Sunday, May 9	Examinations end.
	Monday, May 10	Classes begin — First-term and two-term summer session courses.
	Monday, May 10	Last day to apply for DEF (Deferred) or MED (Medical) notation for courses ending in April 2021.
	Saturday, May 15	Last day to apply for late completion of courses ending in April 2021.
	Monday, May 17	Last day to add first-term and two-term summer session courses.
	Monday, May 17	Deadline for withdrawal with tuition refund (DNE) from first-term and two-term summer session courses.
	Monday, May 24	Journée nationale des patriotes (Quebec), Victoria Day (elsewhere in Canada) — University closed.
	Sunday, May 30	Last day for submission of late-completion work for courses ending in April 2021 (application deadline May 15).
JUNE	T.B.A.	Spring convocations.
	Monday, June 7	Last day for academic withdrawal (DISC) from first-term summer session courses.
	Tuesday, June 15	Last day to apply for supplemental examinations for courses taken during the regular session 2020-21.
	Tuesday, June 15	Last day to apply for re-evaluation of courses ending in April 2021.
	Wednesday, June 23	Last day of classes — First-term summer session.
	Thursday, June 24	Fête nationale — University closed.

	Friday, June 25	Examinations begin — First-term summer session finals.
	Friday, June 25	Mid-term break for two-term summer session begins.
	Wednesday, June 30	Examinations end — First-term summer session finals.
JULY	Thursday, July 1	Canada Day — University closed.
	Thursday, July 1	Mid-term break for two-term summer session ends.
	Monday, July 5	Classes begin — Second-term summer session and special three- or six-week summer session.
	Monday, July 12	Last day to add second-term summer session courses and first-term special three- or six-week summer session courses.
	Monday, July 12	Deadline for withdrawal with tuition refund (DNE) from second-term summer session and first-term special three- or six-week summer session courses.
	Thursday, July 15	Last day for academic withdrawal (DISC) from first-term special three-week summer session courses.
	Thursday, July 15	Last day for academic withdrawal (DISC) from two-term summer session courses.
	Thursday, July 15	Last day to apply for fall 2021 graduation.
	Friday, July 23	Last day of classes — First-term special three-week summer session.
	Monday, July 26	Classes begin — Second-term special three-week summer session.
	Wednesday, July 28	Last day for academic withdrawal (DISC) from special six-week summer session courses.
	Thursday, July 29	Last day for academic withdrawal (DISC) from second-term summer session courses.
AUGUST	Sunday, August 1	Last day to apply for Quebec resident status for summer session 2021.
	Monday, August 2	Registration start date for returning and newly authorized Independent students — Fall 2021 term.
	Monday, August 2	Last day to register for second-term special three-week summer session courses.
	Monday, August 2	Deadline for withdrawal with tuition refund (DNE) from second-term special three-week summer session courses.
	Thursday, August 5	Last day for academic withdrawal (DISC) from second-term special three-week summer session courses.
	Friday, August 13	Last day of classes — Special six-week and second-term special three-week summer session courses.
	Tuesday, August 17	Last day of classes — Two-term and second-term summer session courses.
	Wednesday, August 18	Make-up day for classes scheduled on Thursdays in two-term summer session.
	Thursday, August 19	Examinations begin — Two-term and second-term summer session finals.
	Monday, August 23	Examinations end — Two-term and second-term summer session finals.
	Tuesday, August 24	Replacement and supplemental examinations begin — Regular session 2020-21.

	Saturday, August 28	Replacement and supplemental examinations end — Regular session 2020-21.
	Tuesday, August 31	Last day to apply for DEF (Deferred) or MED (Medical) notation for courses taken during the summer session 2021.
SEPTEMBER	Wednesday, September 1	Last day to apply for late completion of courses taken during the summer session 2021.
	Monday, September 6	Labour Day — University closed.
	Tuesday, September 7	Classes begin — Fall and fall/winter terms 2021-22.
	Wednesday, September 15	Last day for submission of late-completion work for summer session 2021 courses (application deadline September 1).
	Thursday, September 16	Last day to apply for supplemental examinations for courses taken during the summer session 2021.
	Monday, September 20	Last day to add fall-term and two-term courses.
	Monday, September 20	Deadline for withdrawal with tuition refund (DNE) from fall-term and two-term courses.
	Tuesday, September 21	Registration start date for newly admitted students — Winter 2022 term. New students admitted for winter 2022 can register any time after admission and advising criteria have been satisfied.
	Friday, October 1	Last day to apply for re-evaluation of courses taken during the summer session 2021.
OCTOBER	Saturday, October 2	Replacement and supplemental examinations — Summer session 2021 courses.
	Monday, October 11	Thanksgiving Day — University closed (see December 7, 2021).
	T.B.A.	Fall convocations.
NOVEMBER	Monday, November 1	Last day to apply for admission to undergraduate programs — Winter term 2022.
	Monday, November 1	Last day to apply for degree transfer — Winter term 2022 (for currently registered students to transfer into the Faculty of Arts and Science or the Gina Cody School of Engineering and Computer Science).
	Monday, November 8	Last day for academic withdrawal (DISC) from fall-term courses.
	Friday, November 12	Last day to register with the Access Centre for Students with Disabilities and receive exam accommodations for the fall 2021 final examination period.
	Thursday, November 25	Registration start date for newly authorized Independent students — Winter 2022 term.
	Monday, November 29	Last day for instructor-scheduled tests or examinations.
	Wednesday, December 1	Last day to apply for Quebec resident status for fall term 2021.
	Monday, December 6	Last day of classes — Fall term.
	Tuesday, December 7	Make-up day for classes scheduled on Monday, October 11.
DECEMBER	Wednesday, December 8	Examinations begin.
	Wednesday, December 22	Examinations end.
	Wednesday, December 22	Aide financière aux études (AFE) end of funding for fall term.
	Thursday, December 23 to Wednesday, January 5	Holiday period — University closed.

2022		
JANUARY	Thursday, January 6	Classes begin — Winter term 2022.
	Thursday, January 6	Classes resume — Fall/winter term 2021-22.
	Saturday, January 15	Last day to apply for spring 2022 graduation.
	Saturday, January 15	Last day to apply for DEF (Deferred) or MED (Medical) notation for courses ending in December 2021.
	Wednesday, January 19	Last day to add winter-term courses.
	Wednesday, January 19	Deadline for withdrawal with tuition refund (DNE) from winter-term courses.
FEBRUARY	Tuesday, February 1	Last day to apply for supplemental examinations for courses ending in December 2021 (graduating students only).
	Tuesday, February 1	Last day to apply for re-evaluation of courses ending in December 2021.
	Tuesday, February 1	Last day to apply for late completion of courses ending in December 2021.
	Tuesday, February 15	Last day for submission of late-completion work for courses ending in December 2021 (application deadline February 1).
	Monday, February 28	Mid-term break begins.
	Monday, February 28	Replacement examinations begin.
	Monday, February 28	Supplemental examinations begin for courses ending in December 2021 (graduating students only).
MARCH	Tuesday, March 1	Last day to apply for admission to undergraduate programs — Full-time regular session 2022-23.
	Tuesday, March 1	Last day to apply for degree transfer — Fall term 2022 (for currently registered students to transfer into a different degree in any Faculty).
	Thursday, March 3	Replacement and supplemental examinations end.
	Friday, March 4	President's Holiday — University closed.
	Sunday, March 6	Mid-term break ends.
	Friday, March 18	Last day to register with the Access Centre for Students with Disabilities and receive exam accommodations for the winter 2022 final examination period.
	Monday, March 21	Last day for academic withdrawal (DISC) from two-term and winter-term courses.
APRIL	Friday, April 1	Last day to apply for Quebec resident status for winter term 2022.
	Wednesday, April 6	Last day for instructor-scheduled tests or examinations.
	Wednesday, April 13	Last day of classes — Fall/winter and winter terms 2021-22.
	Friday, April 15	University closed.
	Saturday, April 16	University closed.
	Sunday, April 17	University closed.
	Monday, April 18	University closed.
	Tuesday, April 19	Examinations begin.
	Saturday, April 30	Aide financière aux études (AFE) end of funding for winter term.

MAY	Sunday, May 1	Examinations end.
	Tuesday, May 10	Last day to apply for DEF (Deferred) or MED (Medical) notation for courses ending in April 2022.
	Sunday, May 15	Last day to apply for late completion of courses ending in April 2022.
	Monday, May 23	Journée nationale des patriotes (Quebec), Victoria Day (elsewhere in Canada) — University closed.
	Monday, May 30	Last day for submission of late-completion work for courses ending in April 2022 (application deadline May 15).
JUNE	T.B.A.	Spring convocations.
	Wednesday, June 15	Last day to apply for supplemental examinations for courses taken during the regular session 2021-22.
	Wednesday, June 15	Last day to apply for re-evaluation of courses ending in April 2022.

Administration and Governance

Section 12

ADMINISTRATION AND GOVERNANCE

Section 12

The following information was updated as of January 15, 2021.

Board of Governors

concordia.ca/about/administration-governance/board-senate/governors/list

Senate

concordia.ca/about/administration-governance/board-senate/senate/list

Council of the Faculty of Arts and Science

concordia.ca/artsci/about/leadership/faculty-council

Council of the John Molson School of Business

concordia.ca/jmsb/about/faculty-council

Council of the Gina Cody School of Engineering and Computer Science

concordia.ca/ginacody/about/leadership/faculty-council

Council of the Faculty of Fine Arts

concordia.ca/finearts/about/faculty-council

Concordia Council on Student Life

concordia.ca/offices/ccsl/about-the-council

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Anne Whitelaw, BA, MA, PhD

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Nadia Hardy, Lic, LSc, PhD

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VICE-PROVOST, PARTNERSHIPS AND EXPERIENTIAL LEARNING
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SPECIAL ADVISOR TO THE PROVOST, CAMPUS LIFE AND SUPPORTS:
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SPECIAL ADVISOR TO THE PROVOST, INDIGENOUS SPACES AND DONOR ENGAGEMENT:
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UNIVERSITY REGISTRAR:
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Paul Chesser, BA
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SENIOR ANALYST, FINANCIAL OPERATIONS, FINANCIAL SERVICES:
Tina Stoli, CPA, CGA

Admission Regulations

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Section 13

ADMISSION REGULATIONS

Section 13

University Registrar
STÉPHANIE DE CELLES

Associate Registrar
ILZE KRAULIS

Director, Student Recruitment
MATT STIEGEMEYER

Director, Admissions
SOPHIE FONTAINE

Manager, Government Reporting and Statistics
MARIE-CLAIRE NEWMAN

Manager, Application and Documentation Processing
DAVID DEDEYNE

Manager, Undergraduate Admissions
MEREDITH EVANS

Location

Sir George Williams Campus
Faubourg Tower, Room: FB 900
514-848-2424, ext. 2668
Fax: 514-848-2621
University Website: concordia.ca

13.1 ADMISSION TO CONCORDIA UNIVERSITY

The University gives fair consideration to all applicants and informs them of its decisions and the basis for such decisions within a reasonable period of time. Concordia has a long tradition of service to adult and part-time students. Basic information on admission requirements and procedures is included in this Calendar. More detailed information can be found on the Concordia website.

In keeping with general principles accepted by Quebec universities, admission to Concordia University is open to qualified applicants in the program of their choice. In programs with limited enrolments, not all qualified applicants can be accepted. In such cases, the University accepts those with the strongest qualifications and demonstrable potential. Qualified applicants not admitted to their preferred program are automatically considered for their second-choice program.

Applicants should submit an application through the Concordia website: concordia.ca.

There is a single processing centre to which all admission-related documents should be mailed:

Concordia University
Admissions Application Centre
P.O. Box 2900
Montreal, Quebec
H3G 2S2

13.2 DEFINITIONS

The Academic Year

The academic year begins with a summer session (May to August) followed by a regular session (September to April). The summer session includes all courses offered between the beginning of May and the end of August. The regular session is divided into a fall term (September to December) and a winter term (January to April), each 15 weeks long. Terms include an examination period, during which any final examination must be held. The Academic Calendar §11 lists precise dates for the beginning and end of classes and examination periods.

Exemption

A student may be exempted from a Concordia course based on previous study or a challenge exam. An exemption from a course has no credit value towards a degree or certificate. Exemptions from required courses may be granted in cases where students

have already covered the work at any institution with an appropriate level of performance. Any such courses may be replaced with courses chosen in consultation with their advisors. Students who complete a course for which an exemption has been granted will not be permitted to retain the credits unless they have been granted prior approval from the Faculty and/or departmental advisor.

Sequence of Courses

- **Prerequisite**

Course A is a prerequisite of Course B when "A" must be taken and successfully completed before taking "B." Students may be deregistered from a course until its prerequisite course(s) has been successfully completed.

- **Co-requisite**

Course A is a co-requisite of Course B when "A" must be taken in the same academic term as "B," unless it has already been successfully completed. Students may be deregistered from Course B if they are not concurrently registered in the co-requisite Course A.

Residence Requirement

This refers to the minimum number of credits which must be taken at Concordia University to obtain a degree or certificate awarded by the University.

Transfer Credits

Transfer credits are credits for courses taken at another institution (or in another Concordia program) which may be transferred towards a Concordia degree or certificate.

Student Type

- **Extended Credit Program Students**

Students registered in an extended program, normally requiring 30 credits in addition to the regular requirements, designed for students entering from secondary institutions outside Quebec. (See relevant Faculty section.)

- **Independent Students**

Students not seeking a degree or certificate.

- **Mature Students**

Undergraduate students who do not meet regular academic admission requirements and have been admitted on the basis of their age, experience, and potential.

- **Undergraduate Students**

Students registered in an undergraduate degree or certificate program, whether on a full-time or part-time basis. See §16.1.2 for a definition of full-time and part-time study.

- **Visiting Students**

Undergraduate students from other universities who have written approval from their home university to take courses at Concordia University, or students currently registered in certain certificate programs sponsored by external associations (e.g. programs related to the John Molson School of Business).

13.3 ADMISSION REQUIREMENTS

13.3.1 Applicants from Quebec Institutions

Quebec applicants must have successfully completed a two-year pre-university program in a Cegep and qualify for a Diploma of Collegial Studies (DEC) or the equivalent. Applicants who have completed a three-year professional program in a Cegep or have obtained a French or International Baccalaureate are also eligible for consideration.

Cegep records of applicants must include the successfully completed prerequisites of the Concordia degree program for which they are applying. These programs and admission requirements "profiles" are listed in:

- The programs and admission requirements listed under each Faculty section,
- The Concordia website.

Students admitted to a particular program at the University and who subsequently wish to change to another program may have to complete specific prerequisites in addition to their regular program requirements.

13.3.2 Applicants from Other Canadian Provinces

When applying to a Faculty program, graduates of secondary schools in Canadian provinces and territories other than Quebec are considered for admission to the Extended Credit Program (ECP) at Concordia. The ECP requires completion of 30 credits in addition to the regular requirements. The duration of a degree program is normally four years. The BEng, BA (Early Childhood and Elementary Education), BEd (TESL), BSc in Athletic Therapy, and BFA (Specialization in Art Education) will generally require five years of full-time study to complete.

To be considered for admission, students must have successfully completed prerequisites of the Concordia degree program for which they are applying. The specific admission requirements are listed on the Concordia website.

Students admitted to a particular program at the University and who subsequently wish to change to another program may have to complete specific prerequisites in addition to their regular program requirements.

13.3.3 Transfers from Other Universities

Each transfer application is considered on its merits. The number of transfer credits granted depends on the character, quality, and quantity of the work completed at the accredited institution. In allowing transfer credits, some special conditions apply:

1. Students will not be given credit for courses taken in another university during the same academic term in which they have registered for courses at Concordia University, unless special permission has been obtained in advance from this University. Further detailed information is available in §16.1.6 of this Calendar.
2. To earn an undergraduate degree, students must meet the University Residence Requirements as outlined in §16.2.2 of this Calendar.
3. Students transferring to Concordia after having failed to achieve a satisfactory record at any university must take a minimum of 60 additional credits at Concordia.

13.3.4 Transfers from Other Post-Secondary Institutions

Each transfer application is considered on its merits. Credits from junior colleges, community colleges, or colleges of applied arts and technology outside Quebec will, in general, be given the same recognition towards undergraduate programs as they receive in their respective provinces.

13.3.5 Transfer Credits and Exemptions

Transfer credits are credits for courses taken at another institution (or in another Concordia program) which may be transferred towards a Concordia degree or certificate. The respective Faculty assesses all requests for transfer credits. Concordia courses transferred from an incomplete degree or certificate program or from independent studies will have the credits transferred as well as the corresponding grade provided a grade of C- or better has been achieved. Concordia courses transferred from a completed degree or certificate will have the credits transferred but will not include the corresponding grades. Courses from another institution with a grade of C- or better (or equivalent) may have the credits transferred, if deemed appropriate, but will not include the corresponding grades.

An exemption from a course has no credit value towards a degree or certificate. Exemptions from required courses may be granted in cases where students have already covered the work at any institution, with an appropriate level of performance. Any such courses may be replaced with courses chosen in consultation with their advisors. Students cannot retain credits for a repeated course or a course in which any exemption has been granted, unless they have been granted prior approval from the Faculty and/or departmental advisor.

13.3.6 Applicants from Outside Canada

In general, candidates who have completed the level of education required for admission to university in their home country and have achieved good grades are eligible to apply for admission. Further information regarding international admission requirements is available in §19.

13.3.7 Former Concordia Students

Former Concordia students who have been absent from Concordia may be required to submit a new application for admission. Students are advised to contact Enrolment Services for information on the correct procedure. Students may have to resubmit proof of legal status in Canada and Quebec resident status after an absence of more than 12 months (see §13.7 for required documents). Normally,

- Students who, during their absence from Concordia, attended another institution and attempted at least 12 credits, must submit a new application and make arrangements to have an official transcript sent to the Admissions Application Centre. Transfer credits will be assessed as part of the admissions process. If fewer than 12 credits have been attempted or if attendance at another institution was based exclusively on a letter of prior approval from the Faculty Student Request Committee, a new application would normally not be required.
- Students who **officially** withdrew from Concordia University and who wish to return to study must submit a new application. If they have attended another institution during their absence, they must also make arrangements to have an official transcript sent to the Admissions Application Centre.
- Students in the Faculty of Arts and Science who have been absent from their program for nine consecutive terms or more will be withdrawn from their program and must meet with an academic advisor before reinstatement into the program.
- Students in the John Molson School of Business who have been absent from their program for six consecutive terms or more will be withdrawn from their program and must meet with an academic advisor before reinstatement into the program.
- Students in the Gina Cody School of Engineering and Computer Science who have been absent from their program for six consecutive terms or more will be withdrawn from their program and must submit a new application for admission through the Concordia website.
- Students in the Faculty of Fine Arts who have been absent from their program for nine consecutive terms or more will be withdrawn from their program and must meet with an academic advisor before reinstatement into the program.

The respective Faculty assesses all requests for transfer credits. Further detailed information is available in §13.3.3, §16.1.6 and §16.2.2 of this Calendar.

13.4 LANGUAGE PROFICIENCY

While the language of instruction at Concordia is English, most assignments and examinations may be submitted in French. Students whose first language is not English must demonstrate language proficiency prior to their admission to Concordia.

They will ordinarily be exempt from pre-admission English tests if they have completed any of the following criteria:

- The last four years of high school studies in Quebec and the DES (Secondary V);
- Both Secondary V and the Diploma of Collegial Studies (DEC) in Quebec;
- The Diploma of Collegial Studies (DEC) at an English Cegep in Quebec;
- A minimum of three full years of study in an institution where the sole language of instruction is English;
- Four full years of study in Canada in French at the secondary-school level immediately prior to graduating;
- The course Group 1 English (Language A: Literature, Language A: Language & Literature, or Literature & Performance) (Higher or Standard level) in the International Baccalaureate (IB);
- The European Baccalaureat English as language 1 or language 2;
- The American or British Option internationale du baccalauréat (OIB) of the French Baccalauréat;
- GCE/GCSE/IGSCE/O-level English Language, English as a Second Language or First Language English with a grade of "C" or better;
- The Advanced 2 level of the Intensive English Language Program (IELP) at Concordia University's Continuing Education Language Institute (CELI) with a final grade of 70% or higher.

If none of these criteria fits, a student whose first language is other than English must write a pre-admission English test. Proof of proficiency in English must be provided by achieving the appropriate score on one of the following:

- Test of English as a Foreign Language (TOEFL);
- International English Language Testing System (IELTS);
- Canadian Academic English Language Assessment (CAEL);
- Cambridge Certificate of Proficiency in English (CPE) and Certificate in Advanced English (CAE);
- Pearson English Proficiency Test.

For information on the minimum scores required please consult the Concordia website.

Test results must be reported directly to the Admissions Application Centre by the test centre. Results more than two years old will not be accepted as proof of language proficiency. **In all cases, the University reserves the right to require a proficiency test if it is deemed necessary.**

13.5 APPLYING FOR ADMISSION

Students should submit an application through the Concordia website at concordia.ca. Students are encouraged to apply for admission as early as possible to allow sufficient time for the evaluation of their application. This is especially true for applicants from outside Canada. Supporting documents must be submitted at the time of application or as soon afterwards as they become available.

Applicants must state their full academic history on their application for admission or risk cancellation of their admission or registration. No transfer credit will be awarded retroactively for former studies not reported in the application.

13.5.1 Application Fee

There is an application fee required with every application, payable to Concordia University by certified cheque, money order, MasterCard, Visa, American Express or debit card (Interac). Applicants from outside Canada may pay this fee by international money order or draft drawn on a Canadian bank in Canadian funds.

This application fee is not refundable under any circumstances, nor can it be used towards tuition. It is not transferable to a session other than that for which the student is applying.

13.5.2 Deadlines

September is the normal point of entry to full-time and part-time studies. Entry in January is limited to certain programs. Students should refer to the admissions information within the relevant Faculty section on the Concordia website.

March 1 and November 1 are the application deadline dates normally set for the fall and winter terms respectively. However, candidates are encouraged to submit their applications well before the start of term to allow sufficient time for evaluation and notification. Candidates applying from outside of Canada should submit their applications by February 1 for September entry and September 1 for January entry.

13.6 SPECIAL ADMISSIONS

13.6.1 Mature Students

Mature students are undergraduates who have not met the regular academic admission requirements (e.g. completion of a DEC or equivalent), but have been admitted on the basis of age, experience, and potential. Mature students may study full-time or part-time.

Information on Mature Entry is contained in §14.

13.6.2 Visiting Students

Visiting students are undergraduate students from other universities who have written approval from their home university to take courses at Concordia University, or they are students currently registered in certain certificate programs sponsored by external associations. The granting of such status in no way guarantees a student a place in a course.

1. Students from other Quebec universities who wish to take courses at Concordia must complete a web-based Inter-University Exchange Authorization form at bci.qc.ca/en/students/aehe. Additional information is available in §16.1.6.
 2. Undergraduate students from other universities outside the province of Quebec who wish to take courses at Concordia must submit a letter of permission from the registrar of their home university and Canadian citizenship/permanent residency documents or *Quebec Acceptance Certificate* (CAQ) and *Study Permit*. Visiting students who are Canadians or permanent residents may be eligible to pay Quebec rates of tuition upon submission of proof of Quebec residency in accordance with government criteria (see §13.7).
 3. Students who wish to register in certificate programs sponsored by external associations must submit proof of membership in the association and citizenship documents. Visiting students who are Canadians or permanent residents may be eligible to pay Quebec rates of tuition upon submission of proof of Quebec residency in accordance with government criteria (see §13.7).
-

13.6.3 Independent Students

Concordia University allows individuals to register as Independent students — students who can take individual courses but are not registered in a degree program — if they satisfy the admission requirements.

Canadian citizens and permanent residents can qualify for admission by providing proof of being over 21 years of age as of May 15 for the summer session, September 15 for the fall term or January 15 for the winter term OR providing proof of meeting the minimum academic requirements for entry to the University. International students must be academically eligible for University entrance.

Independent students may register for a maximum of 18 credits a year, equally divided between fall and winter terms; their Independent status in no way guarantees them a place in a given course. International Independent students are required to register for a minimum of 12 credits each fall and winter term according to Immigration Quebec rules.

Independent students are admitted through Enrolment Services and will subsequently receive academic advising through the respective Faculty. Students who wish to enter a degree or certificate must submit a formal application. Credits acquired as an Independent student may be applied towards the degree or certificate if applicable. In the case of the Faculty of Arts and Science and the Gina Cody School of Engineering and Computer Science, a maximum of 30 credits earned in the Independent status may be transferred towards a degree.

13.6.4 Senior Students

Concordia University is committed to lifelong learning and community service. Seniors at Concordia either take credit courses in a program or as Independent students. They can also choose to audit courses on a non-credit basis through the Senior Audit program administered by the Office of the Registrar.

Students aged 55 and over who wish to attend undergraduate courses primarily in the Faculty of Arts and Science for personal interest rather than for credit, may register to audit courses. Though not required to write class assignments or final examinations, they participate in every other aspect of the courses. Senior Audit students pay significantly reduced fees. For more information, call Sylvia De Niverville at 514-848-2424, ext. 3893.

If seniors wish to pursue an undergraduate program or take courses as Independent students for credit, they may do so at the regular tuition fees. Some assistance through the William Schiff Scholarship is possible for those 55 or over. Applications and information may be obtained at the Financial Aid and Awards Office.

13.7 REQUIRED DOCUMENTS

Proof of Canadian Citizenship or Permanent Residency

All applicants must provide documentary proof of their status in Canada. Applicants who have been accepted by the University and who have not provided this proof of status will automatically be charged the higher International tuition fees. To provide proof of Canadian citizen/permanent resident status, applicants must submit a photocopy to the Admissions Application Centre of one of the following documents:

- Canadian Birth Certificate;
- Quebec Birth Certificate issued by the Quebec Directeur de l'état civil with the mention "Certified" or "certifié conforme";
- Canadian Citizenship Card (both sides);
- Canadian Citizenship Certificate;
- Permanent Resident Card (both sides) or IMM 5292 or IMM 5688;
- Certificate of Indian Status Card (both sides).

The following documents are **not** acceptable:

- Driver's Licence;
- Medicare Card;
- Social Insurance Number Card;
- Quebec Baptismal Certificate.

In case of a discrepancy in information provided, the University reserves the right to ask students to provide additional documentation to verify their legal name.

Proof of Quebec Residency (Applicable to Canadian Citizens and Permanent Residents)

The University will endeavour to establish Quebec residency status for applicants from Quebec Cegeps by importing Quebec resident status data electronically from government files based on their "permanent code."

Other Canadian citizens and permanent residents must present proof of Quebec residency. Students who have not provided such evidence are automatically charged non-Quebec resident fees.

To prove Quebec residency, applicants must supply the Office of the Registrar with an original or a legible photocopy of one of the following documents:

- A "certified" birth certificate issued after January 1, 1994 by the Government of Quebec (regardless of place of birth), which does not contain the notation "*Émis en vertu de l'article 137 du Code Civil*";
- A current Canadian passport clearly indicating a place of birth in Quebec;
- A *Certificat de sélection du Québec* (CSQ) or an official letter from the Ministère des Communautés culturelles et de l'immigration du Québec attesting that the student is the holder of a CSQ;
- A loan certificate issued by l'Aide financière aux études du ministère de l'Éducation et de l'Enseignement supérieur for the current year.

In addition, the student may fit into one of a number of other approved government categories. Among the categories recognized by the Government are:

- A student adopted by a person with residency status in Quebec at the time of the adoption;
- A student, one of whose parents resides in Quebec;
- A student who has resided in Quebec for at least 12 months before becoming a full-time student;
- A student who came to Canada as a permanent resident without a *Certificat de sélection du Québec* (CSQ) but has resided in Quebec for at least three months without having lived elsewhere for more than three months since landing in Canada;
- A student whose spouse qualifies under these criteria as a Quebec resident.

Students who had Quebec resident status at Concordia in the past may have to renew their Quebec resident status after an absence of more than one year.

If, upon acceptance to a University program, proof of Quebec residency has not been established, students must apply for Quebec residency on the student portal at myconcordia.ca and submit the required documentation by the deadline for the term in question. Details can be found at concordia.ca/admissions/tuition-fees/quebec-residency. Quebec resident status may not be granted retroactively.

13.7.1 All Applicants

Academic Documents

Applicants must submit all secondary and post-secondary academic records. In order for their admission to be finalized, they must ensure that an **official** transcript is forwarded directly to the Admissions Application Centre by all of the institutions which they have attended.

With their application, students currently enrolled at an institution must include results from all previous terms together with a list of courses in progress. They must arrange for an **official** transcript with the results of the final semester to be forwarded as soon as possible once they have been admitted. All documents must be originals or appropriately certified copies. Uncertified copies are not acceptable; neither are records transmitted by fax. Transcripts in a language other than English or French must be accompanied by a certified translation. If the transcript does not detail the subjects and the grades, a certified statement of these from an authorized official of the institution should also be included.

The above procedure whereby institutions send official transcripts directly to Concordia University is the normal method for receipt of official transcripts. However, in order to accelerate the review of their file, students may submit official transcripts in sealed envelopes along with their application, subject to the following procedures: applicants are to request each previous educational institution to provide them with a copy of their official transcript, sealed in an envelope which bears the name and address of the school, the institutional logo (if applicable), a notice on the envelope stating that it contains official transcripts, and a signature/signature stamp/explanatory label placed across the seal of the envelope. The sealed-envelope transcript method may be used only for transcripts issued by institutions in North America.

NOTE: All required documents received by Concordia University become the property of the University. Official documents and/or transcripts will not be returned to the applicant and will be destroyed after three years.

13.7.2 Permanent Code

The Ministère de l'Éducation et de l'Enseignement supérieur requires all registered students to have a "permanent code" (a unique identifying number) which is assigned by the Ministry. Students who already have a permanent code must enter it on their application form.

For students who have attended or are currently attending Cegep in Quebec, Concordia University will automatically obtain the required Cegep record electronically by using their permanent code.

13.8 SELECTION PROCESS AND NOTIFICATION

13.8.1 Conditional Admission

Applicants seeking admission to undergraduate programs may be granted conditional admission on the basis of available academic records, including interim results for the current year. Final admission is contingent upon a student's successfully completing all the academic admission requirements and meeting all conditions as stated in the conditional offer of admission issued by the University.

13.8.2 Confirmation Fee

Applicants who have been granted admission or conditional admission to full-time studies or to certain part-time programs are required to submit a confirmation deposit to confirm their intention to attend the University. This non-refundable confirmation deposit is applied towards tuition fees.

Applicants who receive a conditional offer of admission, but who are ultimately denied admission because they have not completed the minimum academic requirements for entrance, will receive a refund of their confirmation deposit upon request.

13.8.3 Registration

Complete information regarding registration is available at myconcordia.ca.

Mature Entry

14.1 ADMISSION AS A MATURE STUDENT

14.2 PROGRAM REQUIREMENTS

- 14.2.1 Faculty of Arts and Science
- 14.2.2 John Molson School of Business
- 14.2.3 Gina Cody School of Engineering and Computer Science
- 14.2.4 Faculty of Fine Arts

14.3 ASSISTANCE

Section 14

Concordia University has a long history of making education accessible to men and women of all ages and academic backgrounds. Through Mature Entry, those lacking the regular pre-university requirements can still earn university degrees and certificates.

14.1 ADMISSION AS A MATURE STUDENT

At Concordia, the term “Mature Entrants” is used to designate students aged 21 and over who have not completed the normal academic admission requirements. The designation does not apply to adult applicants whose academic background qualifies them for regular admission.

Students apply for admission to particular programs within one of the four Faculties of the University. In every respect, with the exception of the 18-credit requirement, Mature Entrants at Concordia are treated as regular undergraduates and are expected to meet the same standards before graduating.

The admission of applicants for Mature Entry is subject to the following conditions:

1. Applicants must have reached the age of 21 by August 1 for the September term, December 1 for the January term, or April 1 for the May term in any given year;
 2. Although not meeting the normal academic requirements for admission (Québec Diplôme d’études collégiales or the equivalent), applicants must satisfy the University that they have the potential to undertake undergraduate courses; those who have the Québec Diplôme d’études collégiales or the equivalent should contact the Office of the Registrar and their respective Faculty regarding their admission;
 3. Applicants must have been out of school — that is not engaged in full-time study — for at least 24 months since attaining the age of 18. Applicants who have been out of school for only 12 months are also admissible provided that they have had no unfavourable academic record in the previous 24 months;
 4. Applicants must be Canadian citizens or permanent residents (landed immigrants). Applicants must submit proof of citizenship and age, together with school records and any material which may indicate ability to pursue university studies. Applicants are expected to arrange for official transcripts of all their previous studies to be sent directly to Concordia; (§13 provides general information on how to apply for admission.)
 5. In all programs, some students may require courses in English as a Second Language, as determined by language proficiency testing. See §13.4 of this Calendar regarding language proficiency testing.
-

14.2 PROGRAM REQUIREMENTS

Normally, Mature Entrants without any Diplôme d’études collégiales (DEC) or equivalent must complete at least 18 additional credits of preparatory or complementary courses. These additional credits are intended to help them to prepare for their subsequent studies. Students with a partial DEC or equivalent may be awarded transfer credits for some of the additional 18 credits.

When selecting courses to fulfill the additional credit requirements, Mature students are required to consult with advisors in the respective Faculty. When selecting program courses, all students are required to consult with their program advisor. Students in the Gina Cody School of Engineering and Computer Science are required to consult only with their Faculty program advisors.

14.2.1 Faculty of Arts and Science

For most BA programs, there are no specific program prerequisites. Therefore, within the initial 18 credits, students are encouraged to take courses which will broaden their educational background or help them develop study skills.

Consultation with the departmental advisor is encouraged in the choice of the 18 additional credits required for the degree or certificate.

Arts

The programs listed below have specific prerequisites which will take up some or all of the initial 18 credits.

Community Service (Certificate) AHSC 230³, 232³, 270³; ENGL 212³; 6 credits in the social sciences chosen in consultation with the program advisor.

Economics (BA) MATH 209³

NOTE: Students may need one or more of MATH 200³ and MATH 206³.

Early Childhood and Elementary Education or BEd (TESL)

NOTE: Mature students wishing to apply to Early Childhood and Elementary Education or the BEd (TESL) must complete 18 credits prior to applying for entry.

Family Life Education (Certificate) AHSC 220³, 230³, 232³; ENGL 212³; 6 credits in the social sciences chosen in consultation with the program advisor.

Therapeutic Recreation, Specialization (BA)
BIOL 200³ or 201³ or 202³

Mathematics (BA) MATH 203³, 204³, 205³

NOTE: Students may need one or more of MATH 200³ and MATH 201³.

NOTE: Students not having MATH 202³ or the equivalent must include it in their 18 credits.

Psychology (BA) PSYC 200⁶; BIOL 201³ or 202³; 3 credits in Mathematics (in preparation for statistics) chosen in consultation with their departmental advisor.

Science

For those Mature Entry students pursuing a degree in Science, the following courses must be included within their 108-credit requirement:

- 6 credits in Chemistry: CHEM 205³, 206³
- 9 credits in Mathematics: MATH 202³, 203³, 205^{3*}
- 8 credits in Physics: PHYS 204³, 205³, 224¹, 225¹

Additional requirements for programs in the following departments:

Biology and Psychology: BIOL 201³, PHYS 206³, 226¹

Note: For students enrolled in the BSc Systems and Information Biology program, MATH 204³ is also required.

Chemistry: PHYS 206³, 226¹ and BIOL 201³

Biochemistry: PHYS 206³, 226¹ and BIOL 201³

Environmental Geography: PHYS 206³, 226¹ and BIOL 201³

Environmental Science: PHYS 206³, 226¹, MATH 204³ and BIOL 201³

Health, Kinesiology, and Applied Physiology: PHYS 206³, 226¹ and BIOL 201³

Mathematics: MATH 204³, PHYS 206³, 226¹

Physics: PHYS 206³, 226¹ and MATH 204³

NOTE: Students must consult with their departmental advisor to determine the appropriate sequence of the above credits in the BSc degree.

**Students not having MATH 201³, or the equivalent, must take it in place of one of their elective courses. Some students may also need MATH 200³.*

14.2.2 John Molson School of Business

Mature Entry — the 108-credit program

In addition to the 90-credit program, Mature Entry students will be required to complete the following 18 credits outside the offerings of the John Molson School of Business. Those credits are:

- 6 credits in MATH 208³, 209³
- 6 credits in ECON 201³, 203³
- 3 credits in BTM 200³
- 3 additional elective* credits.

**These elective credits must be selected from outside the offerings of the John Molson School of Business.*

NOTE: Students may need one or more of MATH 200³ and MATH 206³.

Requirements for certificate programs are listed with the program descriptions in §61 of this Calendar.

14.2.3 Gina Cody School of Engineering and Computer Science

Engineering

Mature Entrants to the BEng degree, which requires the completion of a minimum of 120 credits, are also required to complete all outstanding required prerequisites in addition to their program. Prerequisite courses are as follows:

- CHEM 205³
- MATH 203³, 204³, 205³
- PHYS 204³, 205³

Six credits chosen from courses in the humanities and social sciences. ESL courses and courses that focus on the acquisition of a language may not be used to meet this requirement. Students should refer to §71.110 when selecting these courses.

NOTE: In all programs, students may need one or more of MATH 200³ and MATH 201³.

NOTE: Some students may require courses in English as a Second Language, as determined by language proficiency testing.

Computer Science

Mature Entry students accepted to the BCompSc must include in their degree program (minimum 108 credits) the following courses, depending upon their chosen program:

- a) BCompSc Joint Major in Computation Arts and Computer Science:
MATH 203³, 204³, 205³
and six credits chosen in consultation with an academic advisor from the Department of Design and Computation Arts and three elective credits may be chosen as follows.
 - General Education Electives found in Complementary Studies for Engineering and Computer Science Students.
 - Basic and Natural Science Courses found in Degree Requirements for the BEng in Software Engineering.
 - Courses not included in the above lists may be taken with prior approval of the undergraduate program director.
- b) BCompSc and BCompSc Joint Major in Mathematics and Statistics and Computer Science:
MATH 203³, 204³, 205³
and six credits chosen from courses in the Humanities or Social Sciences as noted in Section 71.110 and three elective credits may be chosen as follows. ESL courses and courses that focus on the acquisition of a language may not be used to meet this requirement.
 - General Education Electives found in Complementary Studies for Engineering and Computer Science Students.
 - Basic and Natural Science Courses found in Degree Requirements for the BEng in Software Engineering.
 - Courses not included in the above lists may be taken with prior approval of the undergraduate program director.
- c) BCompSc in Health and Life Sciences:
BIOL 201³
CHEM 205³, 206³
MATH 203³, 204³, 205³
PHYS 204³, 206³
and six credits chosen from courses in the Humanities or Social Sciences as noted in Section 71.110. ESL courses and courses that focus on the acquisition of a language may not be used to meet this requirement.

Depending on the number of free electives in their program, Mature Entry Computer Science students may use up to a maximum of 24 credits of prerequisites (including the above courses) within the 108-credit program.

A maximum of six credits of prerequisites may be used within the regular 90-credit program.

NOTE: In all programs, students may need one or more of MATH 200³ and MATH 201³.

NOTE: Some students may require courses in English as a Second Language, as determined by language proficiency testing.

14.2.4 Faculty of Fine Arts

Mature Entry students wishing to pursue degree and certificate programs in the Faculty of Fine Arts must take 18 additional credits appropriate for entry into their ultimate area of concentration. These credits will be chosen with the approval of the Faculty advisors.

14.3 ASSISTANCE

Mature students accepted into the University must inform themselves of the specific requirements of their program and should meet with their program advisors in the Faculties.

Tuition and Fees

Section 15

TUITION AND FEES

Section 15

The University reserves the right to modify the published scale of tuition and other student fees without prior notice, at any time before the beginning of an academic term. The Tuition and Fees information and the authoritative document **on tuition and other fees, and the University's financial regulations, is available on the Concordia University website at concordia.ca/admissions/tuition-fees.**

Academic Information: Definitions and Regulations

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Section 16

ACADEMIC INFORMATION: DEFINITIONS AND REGULATIONS

Section 16

University Registrar
STÉPHANIE DE CELLES

Associate Registrar
ILZE KRAULIS

Director, Student Recruitment
MATT STIEGEMEYER

Director, Admissions
SOPHIE FONTAINE

Director, Administration and Services to Students
TANYA POLETTI

Manager, Government Reporting and Statistics
MARIE-CLAUDE NEWMAN

Manager, Birks Student Service Centre
MATTHEW FISHMAN

Manager, Course Registration, Examinations and Academic Scheduling
NICOLAS TZOUTIS

16.1 GENERAL INFORMATION

The Calendar is an official University document defining academic programs and the regulations that pertain to them. It is accurate as of its publication date. The University Senate reserves the right to modify the academic programs and regulations at its discretion after the publication date of the Calendar. In addition, the University reserves the right to modify the published scale of tuition and other student fees at any time before the beginning of an academic term. The most current information is available from the Office of the Registrar and, for graduate programs, from the School of Graduate Studies. Moreover, the information contained in the Calendar or any other University document related to academic programs and regulations is subject to verification and correction by the Office of the Registrar and the School of Graduate Studies.

The regulations contained in this section apply to all students at the undergraduate level, whether they are enrolled in degree, certificate, or Qualifying programs or registered as Visiting or Independent students, with the following exceptions:

- a) Degree, certificate, and Qualifying program requirements are determined by those in effect in the year of the student's admission. (See §16.2)
- b) Regulations concerning residence requirements and academic performance are also governed by those in effect in the year of a student's admission.
- c) Determination of high academic achievement is governed by the most recent regulation in effect.

Regulations for graduate students can be found online at concordia.ca/academics/graduate/calendar/current.

Students who were admitted or readmitted prior to the current academic year should consult the appropriate Calendar and the Office of the Registrar or, for graduate programs, the School of Graduate Studies, for information on the regulations appropriate to the academic year in which the student was admitted or readmitted.

Specific written permission must be obtained from the appropriate authority for exemption from any academic regulation. Students must have a valid ID card to access certain services.

16.1.1 Academic Year

The academic year is defined by the calendar year in which it begins and the year in which it ends. It begins with a summer session (May to August) followed by a regular session (September to April).

Summer Session:

The summer session includes all courses offered between the beginning of May and the end of August.

Regular Session:

The regular session is divided into a fall term (September – December) and a winter term (January – April). Each term is 15 weeks long and includes an examination period, during which any final examination must be held. The Academic Calendar §11 lists precise dates for the beginning and end of classes and examination periods.

16.1.2 Credit System

Student academic activity is measured according to the credit system. Each credit represents a minimum of 45 hours of academic activity, including lectures, tutorials, laboratories, studio or practice periods, examinations, and personal work.

I. FULL- AND PART-TIME STATUS

A student's status is determined by the number of credits for which she or he is registered at the close of the tuition refund period, in the following way:

	Full-Time*	Part-Time
Registration for both fall and winter terms	24 credits or more	Fewer than 24 credits
Registration for fall term only	12 credits or more	Fewer than 12 credits
Registration for winter term only	12 credits or more	Fewer than 12 credits
Registration for the summer session	12 credits	Fewer than 12 credits

*NOTE: According to the rules established by the Government of Quebec, students receiving Quebec loans and bursaries must maintain registration of 12 credits or more **each term**. For further information, see Financial Aid §18.6.1. For Quebec residency purposes, full-time and part-time are defined on a per-term basis. Courses with DISC notation are included in the calculation. For further information, see Proof of Quebec Residency §13.7.

II. CREDIT LOADS

Regular Session — Full-Time Status

Full-time students normally take 30 credits in each regular session. They may register for a maximum of 15 credits in each of the fall and winter terms. Engineering programs may require more than 30 credits. For information on Engineering credit loads, see §71.

Regular Session — Part-Time Status

Part-time students in all Faculties may register for a maximum of nine credits in each of the fall and winter terms.

Regular Session — Independent Status

Independent students may normally register for a maximum of nine credits in each of the fall and winter terms.

Summer Session

Any student, other than one in the Institute for Co-operative Education (§24) or the Gina Cody School of Engineering and Computer Science (§71), may register for a maximum of 12 credits during the summer session.

16.1.3 Registration for Courses

Students select courses for each session (summer session and fall and winter terms in the regular session) prior to the start of classes.

- All newly admitted students will receive advising and registration information in the offer of admission letter.
- New Independent students can obtain registration information in the Student Academic Services of the Faculty whose discipline interests them and online at concordia.ca/admissions/independent-students.
- New Visiting students can obtain registration information in the online Registration Guide at concordia.ca/students/ registration.
- Returning students in good standing can obtain registration information at myconcordia.ca.

Most students will be able to register for all their courses online at MyConcordia.ca > My Student Centre > Enroll.

16.1.4 Cancellation of Classes

If no class cancellation notice is posted on the classroom door, classes are officially considered cancelled if an instructor is 15 minutes late for a 50-minute class, 20 minutes late for a 75-minute class, or 30 minutes late for longer classes.

16.1.5 Withdrawal

1. The Student's Responsibilities

It is the student's responsibility to meet all deadlines and follow all necessary steps to withdraw from a course or courses, or from the University. Not attending classes or informing an instructor of intent to withdraw does not constitute withdrawal. Instructors are not required to provide students with any evaluation or feedback of their progress in a course before the withdrawal deadline. Students who do not properly withdraw before the published deadlines, and who do not complete assigned work, tests or exams, will receive failing grades.

2. Withdrawal from a Course or Courses

There are two different types of course withdrawal:

a) *DNE (Did Not Enter)*

The DNE withdrawal has no academic or financial impact on the student. The course from which the student officially withdraws prior to the DNE deadline will be removed from the student record and official transcript and no fees will be charged for that course. The DNE deadline is usually within the first two weeks of the fall and winter terms and within the first week of the summer session. For exact dates, please refer to point 4. *Withdrawal Deadlines*.

b) *DISC (Discontinued)*

The DISC withdrawal has both academic and financial impact on the student. For the course from which the student officially withdraws between the DNE and DISC deadlines, the DISC withdrawal notation remains on a student record and official transcript, but does not affect the student's GPA. Nevertheless, the student is financially responsible for the payment of all tuition and other fees pertaining to the course. The DISC deadline is usually after the eighth week of classes of the term for fall and winter terms and within the first five weeks for the summer session. For exact dates, please refer to point 4. *Withdrawal Deadlines*.

Students who wish to withdraw (DNE or DISC) from a course or courses must do so online at MyConcordia.ca > My Student Centre > Enroll > Drop.

When dropping courses online, students must make sure to confirm the transaction and/or verify their registration record to make sure that the course was properly dropped.

3. Withdrawal from the University

Students who wish to withdraw from the University must:

- a) Withdraw from their courses by the appropriate deadline (see §11 Academic Calendar) online at MyConcordia.ca > My Student Centre > Enroll > Drop.

and

- b) Notify the Office of the Registrar in writing, by:

- i. Registered letter addressed to:
Office of the Registrar
Records Office
Room S-FB 900
1455 De Maisonneuve Blvd. W.
Montreal, Quebec H3G 1M8

The student's full name and Concordia student ID number must be clearly legible, and the letter must be signed by the student.

or

- ii. A signed fax sent to 514-848-2621. The student's full name and Concordia student ID number must be clearly legible, and the fax must be signed by the student.

Withdrawal from the University does not withdraw a student from his or her courses. A student enrolled at the University who wishes to withdraw from it must also withdraw from his or her courses.

Correspondence for course withdrawal must be received by the deadline dates (see §11 Academic Calendar).

4. Withdrawal Deadlines

Withdrawal deadlines are published online at concordia.ca/students/registration/term-dates-deadlines.

All financial regulations pertaining to course withdrawals, and refunds or financial credit for fees, are available online at:

- concordia.ca/admissions/tuition-fees > Fee Payment Deadlines
- MyConcordia.ca > My Student Centre > Finances > other financial (drop down menu) > Refund Request

5. Lapsed Program Status

Students in the Faculty of Arts and Science who have been absent from their program for nine consecutive terms or more will be withdrawn from their program and must meet with an academic advisor before reinstatement into the program.

Students in the John Molson School of Business who have been absent from their program for six consecutive terms or more will be withdrawn from their program and must meet with an academic advisor before reinstatement into the program.

Students in the Gina Cody School of Engineering and Computer Science who have been absent from their program for six consecutive terms or more will be withdrawn from their program and must submit a new application for admission through the Admissions Application Centre.

Students in the Faculty of Fine Arts who have been absent from their program for nine consecutive terms or more will be withdrawn from their program and must meet with an academic advisor before reinstatement into the program.

16.1.6 Studies at Other Universities

With the following exceptions, students who wish to take courses at other universities for transfer credit (for example, in the summer) must obtain permission **in advance** from their Faculty Student Request Committee. Students who study at other universities should familiarize themselves with Concordia's Residence Requirements (see §16.2.2).

- 1. Interuniversity Registration within Quebec:** The student must be authorized by his or her academic advisor, Associate Dean or delegate, and the University Registrar. General information can be found at the site of the *Bureau de Coopération Interuniversitaire*: bci-qc.ca/en/students/aehe. Specific instructions can be had by contacting the Student Academic Services in each Faculty.
 - 2. Concordia Student Exchange Program and Internships Abroad:** Authorization varies by Faculty. Specifics can be found at concordia.ca/students/exchanges/csep.
-

16.1.7 Student Request Committees

- Student Request Committees consider applications from students for exceptions to academic regulations or related matters, such as permission for course overloads, registration or withdrawals after the deadline, course substitutions, exceptions to residence requirements, permission to take courses at other universities, and exceptions to the rules governing the refund of tuition and other fees.
- A student request shall be made on a *Student Request* form available online on the Course withdrawals web page: concordia.ca/students/registration/course-withdrawals. The completed request form, student statement, and all supporting documentation should be submitted as follows:
 - Students registered in a Faculty of Arts and Science program must submit to the academic department housing the program in which they are registered;
 - Students registered in a Gina Cody School of Engineering and Computer Science program must submit to the Faculty Student Academic Services Office;
 - Students registered in a Faculty of Fine Arts program must submit to the Faculty Undergraduate Student Academic Services Office;
 - Students registered in a John Molson School of Business program must submit to the Faculty Undergraduate Programs Office;
 - Independent students must submit to the Birks Student Service Centre.
 Requests for refunds of fees will not be considered unless the student has officially withdrawn from the course(s) in question (DISC).
- Requests based on medical grounds must be supported by a *Student Request Medical Certificate* duly completed by a registered medical practitioner. The *Medical Certificate* form is available online on the Course withdrawals web page: concordia.ca/students/registration/course-withdrawals.
- A student request shall be made within a reasonable period of time from the circumstances giving rise to the request. Normally, the following guidelines apply:

<i>A request with respect to a:</i>	<i>must be submitted by:</i>
Summer-session course (session ending in 1)	November 1
Fall-term course (term ending in 2)	March 1
Fall/Winter course (term ending in 3)	August 1
Winter-term course (term ending in 4)	August 1

- In determining whether the period of time elapsed is reasonable, all of the circumstances of the case shall be evaluated.
- Each Faculty shall have a Student Request Committee composed of:
 - no fewer than three faculty members appointed by the Faculty Council;
 - one representative appointed by the University Registrar;
 - one student appointed by the Faculty Council;
 - the Associate Dean (or delegate) who shall chair the Student Request Committee.
 The Independent Student Request Committee shall be composed of:
 - one representative appointed by each Faculty Council for a total of four representatives;
 - one student appointed by the Concordia Student Union;
 - one representative appointed by the University Registrar who shall chair the Independent Student Request Committee.
 - A Student Request Committee may delegate the responsibility for handling certain kinds of requests to designated individuals other than the chair of the committee (e.g. academic advisors, faculty advisors, student affairs coordinators). Where a decision is made by a delegated individual, the student may appeal that decision to the Student Request Committee, as a whole, based on new evidence or other serious grounds, by sending an appeal request in writing, to the Chair of the Student Request Committee within ten (10) working days of receiving a decision made by a delegated individual. Such decisions must be clearly indicated as having been made by delegation.
 - In all cases, the delegated individual and/or the Student Request Committee shall render a reasoned written decision, based on the complete and documented written request, within thirty (30) working days of receiving the request. Decisions of the Student Request Committee to grant a late DISC are final. In cases where the student has requested a full or partial refund of tuition and fees (late DNE, or late DISC with partial refund, respectively), and where the Student Request Committee supports the request, the SRC will forward its reasoned recommendation along with the complete dossier to the University Retroactive Withdrawal Committee, which will render the final decision.

The University Retroactive Withdrawal Committee shall be chaired by the University Registrar and composed of:

- one (1) representative appointed by each Faculty Council for a total of four (4) representatives (two-year term, renewable);
- the Director of Health Services or delegate;
- the manager of the Student Accounts Office or delegate;
- one (1) student appointed by the Concordia Student Union.

7. The University Retroactive Withdrawal Committee shall render a reasoned written decision, based on the complete and documented written request, within thirty (30) working days of receiving a recommendation from the Faculty Student Request or Independent Student Request Committee.
 8. The decisions of the University Retroactive Withdrawal Committee are final.
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16.1.8 Graduation

Degree and certificate candidates who expect to complete requirements in a particular year must apply to the Office of the Registrar before July 15 for fall graduation and before January 15 for spring graduation. Students must complete the graduation application online by accessing the Concordia website: MyConcordia.ca > Student Information System > My Student Centre > Academics > Apply for Graduation. The graduation fee is payable whether or not a student attends convocation.

16.1.9 High Academic Achievement

A degree "With Distinction" will be awarded to students who obtain a final graduation grade point average (FGGPA: see §16.3.10 II.c) of at least 3.40 and below 4.00.

A degree "With Great Distinction" will be awarded to students who obtain a final graduation grade point average (FGGPA) of 4.00 or greater.

16.1.10 Student Record

The student record is a comprehensive report of a student's academic history at the University. It is a complete academic record and includes all courses followed at Concordia. It is available to the student and to authorized University staff and faculty. Students may obtain a copy of their student record from the Birks Student Service Centre during normal operating hours or by written request. A processing fee must accompany the request. (See the Tuition and Fees website at concordia.ca/admissions/tuition-fees/how-fees-are-billed/undergraduate/fees for the current fee.) Students may also access their student record through MyConcordia.ca > My Student Centre > Other Academics (drop-down menu), at no charge.

16.1.11 Grading System

At the end of each course, the instructor will submit a letter grade for every student registered. Using the grade point equivalents listed below, grade point averages (GPA) are calculated for the evaluation of academic achievement, honours standing, prizes, and academic standing.

Grade	Grade Points	
A+	4.30	
A	4.00	
A-	3.70	Outstanding
B+	3.30	
B	3.00	
B-	2.70	Very Good
C+	2.30	
C	2.00	
C-	1.70	Satisfactory
D+	1.30	
D	1.00	
D-	0.70	Marginal Pass
F, FNS	0	Poor — Failure
R	0	Very Poor — Failure
Grade Not Reported	(NR)	0

Just passing courses required to fulfill curriculum requirements is not sufficient to qualify a student to graduate. There is also an academic performance requirement (grade point average) in most degree and certificate programs. See the pertinent section of each Faculty's entry in the Calendar for complete details:

Faculty of Arts and Science	Section 31
John Molson School of Business	Section 61
Gina Cody School of Engineering and Computer Science	Section 71
Faculty of Fine Arts	Section 81

16.1.12 Official Transcript of Credits

An official transcript of credits (hereafter “official transcript”) is a version of the student record intended for the use of external institutions, organizations, and employers. It is a complete academic record and includes all undergraduate and/or graduate courses followed at Concordia. It is accompanied by an explanation of its terminology and is sent directly to the addressee at the written request of the student, provided there is no outstanding balance owing to the University. An official transcript is printed on security paper, and is signed and sealed by the University Registrar.

Details on how to request an official transcript may be found at concordia.ca/students/records/transcripts/request-official-transcripts.

16.2 CURRICULUM REGULATIONS

16.2.1 Modifications to Academic Programs and Regulations

With the exception of the following conditions, the curriculum requirements in effect at the time students are admitted or readmitted to a program (e.g. BA, BFA, Certificate in Business Studies) and/or concentration (e.g. major, specialization), are the requirements that apply to them until they complete their program.

1. The University reserves the right to modify academic program requirements in the light of (a) changing trends in academic and professional fields, and (b) the availability of resources. In the exceptional event that a program is substantially altered by the University Senate, the University recognizes its responsibility to offer suitable transition arrangements for students. The new program requirements should become effective for all students no later than five years after the effective date of change for newly admitted students.
2. When a program is discontinued, the University recognizes its responsibility to offer courses in the program while phasing it out according to a schedule appropriate to the needs of the affected students. Students will be informed of the schedule when the decision is made to phase the program out.
When students in a discontinued program have not been registered for three years, it may not be possible to enable them to complete that program. They may, however, transfer into another program in the University for which they meet the admission requirements.
3. Where students acquire credit towards a degree or certificate in a discontinuous manner and over a protracted time, the University reserves the right, at any time, to require them to take further credits or fulfill additional requirements to obtain that degree or certificate.
4. Modifications to the academic regulations in §16.1 and 16.3 become effective for all students on a given date regardless of the student's date of admission to a program, with the following exceptions:

- 16.1.9 High Academic Achievement
- 16.2.2 Residence Requirements
- 16.3.10 Academic Performance

Modifications to these three regulations apply only to students admitted or readmitted to a program on or after the effective date of such modifications.

5. In the event a student is readmitted after failing an academic year, the University reserves the right to require the student to take additional credits or to repeat certain courses. The student is also subject to changes in academic regulations or program requirements in effect at the time of the student's readmission.
 6. Notwithstanding the above, all students in Engineering programs are required to meet the Canadian Engineering Accreditation Board (CEAB) standards. Students are required to graduate having met the substantial equivalent of the curriculum in force in the winter term prior to degree conferral. It is the student's responsibility to ensure that their course selection meets the program requirements for their graduation. For further information, see §71.10.7.
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16.2.2 Residence Requirements

Residence requirements define the number of credits that students working towards a Concordia University degree must take at the University itself.

1. Of the total number of credits required for an undergraduate degree, students must take a minimum of 45 credits, normally the last 45, at Concordia University. The BEng, BA (Early Childhood and Elementary Education), BEd (Teaching English as a Second Language), BSc in Athletic Therapy, and BFA (Specialization in Art Education) require 60 credits, normally the last 60, at Concordia.
2. At least 50 per cent of the credits for honours, specializations, majors, minors, certificates or other concentrations must be taken at Concordia. The BComm and BAdmin programs also require that at least 50 per cent of the core courses be taken at Concordia.
3. Concordia University students who wish to include courses taken at another university within their residence requirements must obtain permission **in advance** from their Faculty Student Request Committee. Those wishing to engage in interuniversity exchanges in Quebec or student exchange programs must obtain authorization to cross-register from his or her academic advisor, the appropriate Associate Dean or delegate of the student's Faculty, and the University Registrar. For participation in the Concordia Student Exchange Program, the student must comply with the specific Faculty requirements outlined at concordia.ca/students/exchanges/csep.

4. Students who already have an undergraduate degree may undertake a second undergraduate degree, subject to the conditions below. Before registering, such students should consider whether their purpose might be better served by enrolling in a graduate degree, diploma, or certificate program. To obtain a second undergraduate degree, students must:
 - a) Apply and register in a program with a higher concentration than a minor, and
 - b) Complete at least two-thirds of the credits normally required for the second degree in courses other than those credited to the first degree — for example, a minimum of 60 credits must be completed when the normal requirement is 90 credits, and
 - c) Complete at least 36 credits in the new field of concentration.
 5. An exception to 4b) above, is the BEd in TESL, for which students must complete at least half of the 120 credits required for the second degree in courses other than those credited to the first degree.
 6. Any student who is accepted at Concordia University after failing or compiling an unsatisfactory record at another university, will generally be required to complete at least 60 credits at Concordia.
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16.2.3 Degree Regulations

The regulations relating to degree requirements are located in the Faculty sections:

Faculty of Arts and Science	Section 31
John Molson School of Business	Section 61
Gina Cody School of Engineering and Computer Science	Section 71
Faculty of Fine Arts	Section 81

16.2.4 Concentration Requirements

Every undergraduate program requires a cohesive sequence of courses. To graduate in a degree program, a student must complete one of the following concentrations: honours, specialization, major. Under certain conditions, a student may be eligible to obtain a baccalaureate degree through the accumulation of certificates. In the Gina Cody School of Engineering and Computer Science, concentrations are referred to as programs. Most of these programs have options, where students take a number of related courses in a chosen area. Honours is a highly concentrated program with a required performance level; the specialization and the major require varying degrees of concentration, normally without a performance requirement. An honours, specialization, or major can be combined with a minor. In some circumstances, a double major is also possible.

1. Honours Programs

The University offers programs leading to an honours degree in certain disciplines. The honours program consists of 60 or more credits in a discipline, with superior performance required to enter and remain in the program. In their first year, students may register in honours program courses, but their acceptance as honours students will depend on their performance. Students who do not meet requirements for honours standing may proceed in either a specialization or a major program.

There are minimum academic standards for honours programs. The honours student must:

1. meet general degree requirements and the specific requirements for an honours program.
2. maintain a grade point average (GPA) of 3.00 in all honours courses; the minimum acceptable grade in any honours course is "C".
3. have a minimum GPA of 2.70 for honours courses taken each year. For part-time students this is calculated in 18-credit blocks.
4. have a GPA of no less than 2.00 in non-honours courses.

Honours students who do not meet these standards will be withdrawn from the honours program and will proceed in the major or specialization program. Reinstatement in the honours program is possible only with the permission of the Faculty Honours Committee.

The programs and particular Faculty regulations are listed in the Faculty sections under "Honours Programs."

2. Specialization Programs

A specialization is a sequence of courses totalling 60 or more credits. In a few cases it includes a performance requirement. In addition to courses in a particular discipline, the specialization may include courses in other closely related fields.

3. Major Programs

A major is a sequence of courses totalling 36 or more credits, except in the John Molson School of Business where the major consists of at least 24 credits in a particular discipline in addition to the required 42-credit core. The major may include certain courses in other closely related fields.

4. Minor Programs

A minor is a sequence of courses totalling 24 or more credits, except in the John Molson School of Business where the minor consists of at least 12 credits in the chosen discipline in addition to the required 42-credit core.

5. Combined Programs

An honours, specialization, or major program may be combined with a minor or a certificate program. In some circumstances, a major program may also be combined with another major program.

6. Certificate Programs

An undergraduate certificate is a coherent program, usually of 30 credits, made up of regular undergraduate courses. Courses taken as part of a certificate program are normally applicable to the appropriate undergraduate degree. There is no guarantee that a certificate program can be completed in one academic year.

7. Baccalaureate by Accumulation

Under certain conditions, a student may earn a baccalaureate degree through the accumulation of a minimum of three certificates in eligible disciplines. The Faculties and Schools under which the baccalaureate degree is offered shall determine criteria for specific certificate programs eligible for application towards the degree.

Students must satisfy the following conditions in order to qualify for a Baccalaureate by Accumulation:

1. A declaration of intention to complete a Baccalaureate by Accumulation must be submitted at the time of admission to the third certificate.
2. A minimum of 90 credits must be obtained through the accumulation of a minimum of three certificates in order to qualify for the degree. Students admitted to the Extended Credit Program (ECP) and the Mature Entry Program (MEP) are required to take additional credits. See §14 of the Calendar for regulations pertaining to the Mature Entry Program (MEP). See §13.3.2 of the Calendar for regulations pertaining to the Extended Credit Program (ECP).
3. The credits obtained for any course may not be used to satisfy the requirements of more than one program of study, including certificate, minor, major, specialization, and honours programs.
4. Under certain conditions, where admission requirements permit, students may apply a certificate completed at an institution other than Concordia towards the Baccalaureate by Accumulation. The following conditions must be met:
 - a) At least 50 per cent of the credits for the Baccalaureate by Accumulation must be taken at Concordia.
 - b) The final certificate must be completed at Concordia.
5. Students who already have a baccalaureate degree and wish to pursue a second degree through the Baccalaureate by Accumulation program are subject to the conditions below. Before registering, such students should consider whether their purpose might be better served by enrolling in a graduate degree, diploma, or certificate program. To obtain a second undergraduate degree, students must:
 - a) Apply, register and successfully complete two additional certificates (a minimum of 60 credits total) eligible to be applied towards a Baccalaureate by Accumulation.
 - b) At least two thirds of the credits applied towards the second degree must be in courses other than those credited to the first degree — for example, a minimum of 60 credits must be completed when the normal requirement is 90 credits.
6. Students who already have a Baccalaureate by Accumulation who wish to undertake a second Baccalaureate degree through the traditional structure are subject to the Residence Requirements outlined in §16.2.2.
7. Only specific certificates may be deemed as eligible for application towards a Baccalaureate by Accumulation by the granting Faculty or School. All baccalaureate degrees are subject to the admission and graduation criteria established by the Faculties and Schools under which they are offered.
8. All candidates must satisfy the admission criteria for each certificate; admission into one certificate does not guarantee admission into other certificates. The specific admission requirements are listed on the Concordia website.
9. Students are eligible for graduation only once they have satisfied all of the above criteria. Eligibility for graduation is normally assessed following the successful completion of a minimum of three certificates deemed eligible for application towards a Baccalaureate by Accumulation by the granting Faculty or School.

16.2.5 Writing Skills Requirement

Students admitted into the Gina Cody School of Engineering and Computer Science must meet a writing skills requirement. (See §71.20.7.)

16.2.6 Repetition of Courses

1. A student may repeat a failed course only once. Nevertheless, a student who fails a required course twice may appeal to the appropriate Student Request Committee for permission to take the course a third time. If permission is not granted, the student may not be allowed to continue in the University towards that program and/or degree.
2. A student who has received a passing grade for a course may repeat the course for personal reasons (e.g. to meet an external requirement) only once. A student may appeal to the appropriate Student Request Committee for permission to take the course a third time. The student record and official transcript will include all grades, but grades with the "REPT" notation will carry no credit value.
3. A student who wants or needs to repeat a course that is prerequisite to other courses must do so *before* taking any following course in the sequence.
4. The grade corresponding to the latest attempt of the course will be used for calculating the cumulative grade point average (CGPA: see §16.3.10 II.b) and the final graduation grade point average (FGGPA: see §16.3.10 II.c).
5. In the case of courses taken more than once in the same assessment period, only the grade corresponding to the latest attempt of the course will be used in the calculation of the assessment grade point average (AGPA: see §16.3.10 II.a).
6. A grade obtained as the result of a penalty for academic misconduct will remain in the calculation of the AGPA, the CGPA, and the FGGPA whether or not the course has been repeated.

16.3 EVALUATION, ADMINISTRATIVE NOTATIONS, EXAMINATIONS, AND PERFORMANCE REQUIREMENTS

16.3.1 Evaluation

A university degree or certificate attests that its holder has attained a measurable level of achievement as established by a recognized system of evaluation. Thus the performance of each student in each course must be evaluated by the instructor or instructors responsible for the course.

Final grades are determined by students' performance on one or more of the following:

1. assigned work, term papers, projects, etc.
2. class participation which, in certain disciplines, may justify an attendance requirement
3. progress tests
4. laboratory tests and/or laboratory work
5. mid-term and/or final examinations
6. level of written expression.

The weight accorded to the various elements is at the discretion of the instructor or instructors responsible for the course.

At the beginning of a course the instructor will provide students with the evaluation scheme in writing. The scheme cannot be altered without appropriate notice.

Normally in the winter term and summer session, an instructor will submit final grades no later than seven calendar days after the scheduled final examination in a course or, where there is no final examination, seven calendar days after the last scheduled class in a course. All final grades for all courses are *required* to be submitted no later than seven calendar days after the University's last scheduled final examination. In the case of grades for potential graduates, instructors are *required* to submit final grades no later than three calendar days after the scheduled final examination in a course or, where there is no final examination, three calendar days after the last scheduled class in a course. For the fall term, all final grades for all courses are *required* to be submitted three days after the commencement of the winter term. There may be additional delays before grades are posted as approvals of the grades and processing time are necessary. Students may obtain their grades through the Concordia website at myconcordia.ca.

Final grades and grade changes are official only when they have been approved by the appropriate Faculty Dean or delegate. The University reserves the right to make corrections at any time in case of error.

16.3.2 Language of Instruction and Examinations

While courses at Concordia University are normally taught in English, if students prefer, they may write assignments and examinations in either English or French. However, language and literature courses may require assignments and examinations to be written in the language being studied. Students who wish to write in French should ask at the beginning of a course whether their instructor can read French or whether someone else will evaluate their work. If the work must be read by another person, extra correction time may be required.

16.3.3 Failing Grades and Administrative Notations

Failing Grades "F," "FNS," "R," and "NR" notations

1. "F" indicates failure in a course in which a supplemental examination is available.
2. "FNS" indicates failure in a course in which no supplemental examination is available.
3. In a course graded "R," a student is not permitted to write a supplemental examination, apply for a "MED" or "DEF" notation, or complete work late.
4. "NR" stands for not reported and indicates that a student appears to have withdrawn from a course unofficially. It is assigned by the instructor when no material is available to evaluate and the instructor has been unable to submit a grade. "NR" carries a grade point value of zero and counts as a failure.

In a course with an "NR," a student is not permitted to apply for a "MED" or "DEF" notation, write deferred or supplemental examinations, or complete work late.

16.3.4 Administrative Notations "CODE," "CUC," "DEF," "DISC," "DNE," "DNW," "EREM," "EX," "EXCL," "EXTR," "INC," "INIT," "LATE," "MED," "PEND," "PEX," "PTR," "REPT," "RPT," "SRCR," "SREP," "SUPP," "TRC," "TREM," "VALD," "WRKT"

1. "CODE" stands for Academic Code of Conduct Decision, and it is a repetition code that appears only on the student record. It indicates that the grade obtained as a result of a penalty for academic misconduct is included in the calculation of the GPAs whether or not the course has been repeated.
2. "CUC" stands for Complementary University Credits and indicates credits earned as part of a Complementary University Credit certificate or individual study skills courses. These credits are not considered as program credits earned in any other degree or Faculty certificate program or Independent studies.

3. "DEF" stands for Deferred and indicates that a student has been unable to write a final examination due to unforeseeable circumstances beyond the student's control. A "DEF" notation carries no grade point value.
For information on how to apply for "DEF" notations and the regulations that govern them, see §16.3.8 I.
4. "DISC" stands for Discontinued and indicates that a student has properly withdrawn from a course after the end of the course-change period. The notation appears permanently on the student record and official transcript. It carries no grade point value and does not count in assessments of academic standing, but does count towards a student's status (i.e. full- and part-time).
5. "DNE" stands for Did Not Enter and is a temporary notation indicating that a student has officially withdrawn from a course by the deadline for withdrawal with tuition refund. The course and "DNE" notation are subsequently removed from the student record.
6. "DNW" stands for Did Not Write and indicates that a student has not written the final examination for a course. The notation is used only in combination with a letter grade (such as "F/DNW," "B/DNW").
A student in good standing may write a supplemental examination (if available) in a course with a "DNW" unless the grade is "R/DNW" or "FNS/DNW."
For information on how to apply for supplemental examinations and the regulations that govern them, see §16.3.8 III.
7. "EREM" stands for Exemption Received Credit Removed and indicates that the credit earned for this course is not retained because it is a repetition of a course for which the student has already received exemption.
8. "EX" stands for Exemption and indicates an exemption awarded for a course completed at another institution (no credit value).
9. "EXCL" stands for Exclude and indicates that the grade is excluded from the GPA calculation when a course has been assigned a failing grade and that course is subsequently repeated and assigned a passing grade.
10. "EXTR" stands for Extra Credits and indicates that the grade is excluded from the GPA calculation but may be used in a future program.
11. "INC" stands for Incomplete and indicates that a student has not completed required course work, such as a term paper, assignment, or laboratory and that the instructor has agreed to accept the work after the due date. The notation is used only in combination with a letter grade (such as "F/INC," "C/INC") and is assigned on the basis that the missing work is weighted as zero.
When appropriate, "DNW" and "INC" can be used simultaneously (e.g. "F/INC/DNW").
For information on how to apply to complete courses with an "INC" notation, and the regulations that govern late completion, see §16.3.5.
12. "INIT" stands for Initial Attempt and indicates the initial attempt of a course that was subsequently repeated.
13. "LATE" stands for Late Completion Grade Obtained and indicates the final grade that replaces the grade attached to the initial enrolment. Only the final grade is included in the GPA. (Used from 1977-92.)
14. "MED" stands for Medical and indicates that a student has been unable to write a final examination or complete other assignments due to a long-term medical situation. A "MED" notation carries no grade point value.
For information on how to apply for "MED" notations and the regulations that govern them, see §16.3.8 II.
15. "PEND" stands for Pending, is assigned by the University Registrar, and indicates that the grade is not available at this time.
16. "PEX" stands for Potential Exemption and indicates a potential exemption for a course still in progress at another institution (no credit value).
17. "PTR" stands for Potential Transfer Credits and indicates a potential transfer credit for a course still in progress at another institution.
18. "REPT" stands for Repeat and indicates that the credit earned for this course is not retained because it is a repetition of a course or of similar course material for which the credit has already been earned.
19. "RPT" stands for Report and indicates report work completed by a student in a co-operative education program. These credits are not considered as program credits earned.
20. "SRCR" stands for Special Course Permission and indicates that special permission was given to take the same course more than twice where no credits were earned in previous attempts.
21. "SREP" stands for Special Course Repetition and indicates that special permission was given to take the same course more than twice where credits are earned at the initial or second attempt.
22. "SUPP" stands for Supplemental and indicates that supplemental examination credits and grade obtained are retained and included in the cumulative GPA and assessment GPA.
23. "TREM" stands for Transfer Credit Received, Credits Removed and indicates that the credit earned for this course is not retained because it is a repetition of a course for which transfer credit has already been awarded.
24. "TRC" stands for Transfer Credits and indicates transfer credit awarded for a course completed at another institution.
25. "VALD" stands for Valid and identifies a new course with the same course name and number as other courses previously enrolled in. It is not considered as a repetition.
26. "WRKT" stands for Work Term and indicates work completed by a student during a co-operative education work term. These credits are not considered as program credits earned.

16.3.5 Late Completion of Courses with "INC" Notations — Procedures and Regulations

1. The deadlines for completion of course assignments are given to students on the first day of class. The "INC" notation is assigned when an instructor has agreed that a student may complete work after the deadline.
2. A student with an "R" grade or "NR" notation in a course may not apply for late completion in that course.

3. Students must apply for late completion of a course. *Applications for Late Completion* are available at the Birks Student Service Centre. For each course a processing fee applies. (See the Tuition and Fees website at concordia.ca/admissions/tuition-fees/how-fees-are-billed/undergraduate/fees for the current fee.) Completed applications must be returned to the Birks Student Service Centre by:
February 1: Fall-term courses
May 15: Winter-term and fall/winter courses
September 1: Summer-session courses
 4. The completed work must be submitted by:
February 15: Fall-term courses
May 30: Winter-term and fall/winter courses
September 15: Summer-session courses
 5. It is the responsibility of the instructor to submit a final grade within five days of these dates.
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16.3.6 In Progress “IP” Notations — Procedures and Regulations — Faculty of Arts and Science

1. The IP notation is assigned when an instructor has agreed that the work of a student in a course may be submitted past the time for reporting grades. At the undergraduate level the IP notation is applicable **only** to the completion of an honours thesis, internship or fieldwork outside of the University, or directed study or research. Students should refer to §31.003.3 for a list of applicable courses within the Faculty of Arts and Science. In all cases, the assignment of this notation is due to third party involvement in course work, where it is beyond the control of the instructor and/or the student for the student to complete the work within the required deadline.
 2. The completed work must be submitted by:
April 1: Fall-term courses
August 1: Winter-term and fall/winter courses
December 1: Summer-session courses
 3. It is the responsibility of the instructor to submit a final grade within 10 days of these dates.
 4. If the completed work is not submitted by the stated deadline, the IP notation will be changed to a letter grade.
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16.3.7 Examinations

Students must present identification in order to write any examination. Acceptable identification is: Concordia student ID card or Medicare card or driver's licence that bears the photo and signature of the student. Unless expressly permitted by the instructor, the possession of electronic communication devices is prohibited during examinations.

I. Final Examinations

1. Academic Calendar §11 lists the official examination periods.
2. Examination schedules are posted in the Mezzanine of the Hall Building and in the second floor of the John Molson School of Business (SGW Campus) and CC 214 (LOY Campus); on kiosks throughout the campuses; or through the Concordia website at myconcordia.ca.
3. Because special arrangements cannot be made in the event of personal time conflicts (including personal travel plans), students should not make commitments for the examination periods until after the final schedule is posted. Nonetheless, in certain documented circumstances, a student who will not be in the Montreal area during the official final examination period can request to write his/her examination at another university or college.
A student who needs to write at an external institution must submit a “Request to Write a Concordia University Exam at an External Institution” available from the Birks Student Service Centre. The completed request should be submitted to the Birks Student Service Centre within the following deadlines:
November 15: for December final examination period
April 1: for April-May final examination period
June 1: for June final examination period
August 1: for August final and replacement/supplemental examination period
The request must be accompanied by a per-course processing fee. (See the Tuition and Fees website at concordia.ca/admissions/tuition-fees/how-fees-are-billed/undergraduate/fees for the current fee.)
Among the factors considered in the review of the request is the suitability of the testing location, testing conditions, and time constraints. The institution chosen must be an accredited university or college and the proctor/invigilator must be an employee of that institution and must agree to administer the exam(s) at the exact same date and time as scheduled at Concordia University and time differences must be taken into account.
The student is responsible for any fees that may be charged by the external institution.
4. An examination “conflict” is defined as two examinations scheduled at the exact same day and time or three examinations scheduled in consecutive time blocks (9:00-12:00, 14:00-17:00, 19:00-22:00; 14:00-17:00, 19:00-22:00, 9:00-12:00, 19:00-22:00, 9:00-12:00, 14:00-17:00). Two examinations in one day or three examinations in 24 hours are not considered a “conflict.” When a “conflict” exists, students are informed on the My Student Centre (View My Exam Schedule page) and are provided with a deadline by which they must advise how they intend to resolve the “conflict.” If a course has an “alternate” examination, there will be an “Alternate Available” date(s) displayed. Please be aware that the “Alternate Available” date(s) shown is intended for students who have a “conflict” in their examination schedule. Students who do not have an examination “conflict,” as defined above, are obliged to write their examination on the date that is indicated in the “Exam Date” column.

Students who cannot write an examination due to work commitments or religious observations may also request permission to write an "alternate" by reporting their conflict and providing the appropriate documentation in support of their request. Further information is available by contacting the Registration and Examinations Office. Also see §16.3.7 III.3.

5. No student will be admitted to the exam room if his/her name does not appear on the roster of students assigned to write in that room.
6. No candidate will be permitted to enter an examination room after the first third of the examination has elapsed, or to leave before the first third of the examination has elapsed:
3 hour examination: no entry after first 60 minutes has elapsed;
no exit before first 60 minutes has elapsed
2.5 hour examination: no entry after first 50 minutes has elapsed;
no exit before first 50 minutes has elapsed
2 hour examination: no entry after first 40 minutes has elapsed;
no exit before first 40 minutes has elapsed
1.5 hour examination: no entry after first 30 minutes has elapsed;
no exit before first 30 minutes has elapsed
1 hour examination: no entry after first 20 minutes has elapsed;
no exit before first 20 minutes has elapsed
7. Students will be assigned to a specific desk/seat location.
8. Student ID cards will be collected at the time of "signing-in" and will be returned when "signing-out."
9. Students may not leave the exam room during the last 15 minutes.
10. If during the course of an examination a student becomes ill, the student should report at once to the invigilator, hand in the unfinished paper and request that the examination be cancelled. Before leaving the University, the student must also visit the Temporary Examinations Office location in order that a report of the situation may be filed. If physical and/or emotional ill-health is the cause, the student must then report at once to a physician/counsellor so that subsequent application for a deferred examination is supported by medical documentation.
11. If a student completes an examination, even though he/she is ill or faced with other personal problems or situations, the subsequent grade obtained in the course must stand. Petitions on the grounds of illness will not be considered.
12. In the fall and winter terms, no tests or examinations are permitted in the final week of classes. Any exceptions must be approved in advance by the appropriate Faculty Council.

II. Deferred, Replacement and Supplemental Examinations – Regulations

The University Examinations Committee is comprised of one faculty member from each Faculty, a student representative, the Director of Health Services or delegate, and a representative from the Office of the Registrar.

1. Deferred Examinations
 - a) A student who did not write a final examination and has been granted a "DEF" notation is permitted to write a deferred examination.
 - b) A deferred examination counts for the same weight in the course evaluation scheme and covers the same course material as the original examination.
 - c) When a student receiving the privilege of writing a deferred examination does not write the examination during the specified period, the privilege will be withdrawn and a final grade in the course will be recorded by the Office of the Registrar according to the grade achieved by the student before the "DEF" notation was granted.
 - d) An examination cannot normally be deferred a second time. A student who is prevented from writing the deferred exam due to extraordinary circumstances may apply to the University Examinations Committee for a retroactive "DISC" in the course. The Committee's decisions are final.
 - e) When a deferred examination has been written and evaluated, the grade is added to the student's marks for other course work. The resulting final grade will replace the "DEF" notation on the student record and official transcript.
 - f) A student who fails a course after writing a deferred examination may have one opportunity to write a supplemental examination during the next scheduled supplemental examination period provided the original grade was not "FNS" and all other criteria for writing a supplemental have been met (see §16.3.8 III).
 - g) A student cannot write a deferred examination in a course with a grade of "R" or "NR."
2. Replacement Examinations
 - a) A student who did not write a final examination and has been granted a "MED" notation is permitted to write a replacement examination.
 - b) A replacement examination counts for the same weight in the course evaluation scheme and covers the same course material as the original examination.
 - c) When a student does not write a replacement examination, no further examination, replacement or supplemental, will be scheduled. However, students who were prevented from writing the replacement examination due to extraordinary circumstances will be able to apply to the University Examinations Committee. If the Committee approves such a request, the student will be granted a retroactive "DISC." The Committee's decisions are final.
 - d) When a replacement examination is not written, the "MED" notation (e.g. "MED/DNW") will appear permanently on the student record and official transcript.

- e) When a replacement examination has been written and evaluated, the grade is added to the student's marks for other course work. The resulting final grade will replace the "MED" notation on the student record and official transcript.
 - f) A student who fails a course after writing a replacement examination, may have one opportunity to write a supplemental examination during the next scheduled supplemental examination period provided the original grade was not "FNS" and all other criteria for writing a supplemental have been met (see §16.3.8 III).
 - g) A student cannot write a replacement examination in a course with a grade of "R" or "NR."
3. **Supplemental Examinations**
- a) A student who applies for and satisfies all the requirements is permitted to write a supplemental examination.
 - b) Whether or not a supplemental examination is written, the original grade for the course ("F," "F/DNW") will remain permanently on the student record and official transcript.
 - c) The grades from both attempts (first attempt and the supplemental examination) are included in calculating grade point averages and assessments of academic standing.
 - d) A student who fails a supplemental examination is given a grade of "R." A student who does not write a supplemental examination is not assigned a second failing grade for the course.
 - e) When a student does not write a supplemental examination, no further examination, replacement or supplemental, will be scheduled. However, students who were prevented from writing the supplemental examination because of extraordinary circumstances will be able to apply to the University Examinations Committee.
 - f) The University Examinations Committee is comprised of one faculty member from each Faculty, a student representative, and a representative from the Office of the Registrar. The Committee is chaired by the Associate Registrar. The Committee's decisions are final.
 - g) John Molson School of Business: There are no supplemental examinations available for courses offered in this School.
 - h) Gina Cody School of Engineering and Computer Science: Students may apply to write a supplemental examination by submitting a *Student Request* form if they meet the conditions listed in §71.10.3 Academic Regulations – Supplemental Examinations.

III. Deferred, Replacement, Supplemental, and Alternate Examination Periods

Deferred, replacement, supplemental, and alternate examinations are written at various times throughout the year.

1. **Deferred/Replacement Examinations**
- a) John Molson School of Business and Gina Cody School of Engineering and Computer Science: Deferred examinations for courses offered in these Faculties are written the next time the course is offered. For potential graduates in the Gina Cody School of Engineering and Computer Science, if there is no examination scheduled for the course in question in the term before graduation, a deferred examination would be made available during the final examination period of that term.
 - b) Faculties of Arts and Science, and Fine Arts: Deferred examinations for courses in these Faculties are written during the next regular examination period **provided** the course is given in the next term **and that a final examination is scheduled**. If the course is not offered or there is no examination scheduled for the course in question in the subsequent examination cycle, the deferred examination would be scheduled during the next replacement examination period (February/March [mid-term break], August, October).
2. **Supplemental Examinations**
- a) John Molson School of Business: There are no supplemental examinations available for courses offered in this School.
 - b) Gina Cody School of Engineering and Computer Science: Supplemental examinations for fall courses (term ending in 2) are normally written in February/March. For winter courses (term ending in 4), supplemental examinations are normally written in August, and for summer-session courses (session ending in 1), supplemental examinations are normally written in October.
 - c) Faculties of Arts and Science, and Fine Arts: Supplemental examinations for fall/winter courses (terms ending in 2, 3, or 4) are normally written in late August. For summer-session courses (session ending in 1) supplemental examinations are usually written in October. Graduating students may write supplemental examinations in February/March for fall courses (term ending in 2) only.
3. **Alternate Examinations**
- a) When an academic department requests that students from all sections of a particular course be examined at the same date and time, this is known as a "common" exam.
 - b) Because the scheduling of these "common" exams may conflict with the scheduling of other exams, an "alternate" exam can be made available. This "alternate" exam is a second exam covering the same material and is usually scheduled for the first Sunday immediately following the regular exam date.
 - c) Courses with only one section will rarely have an "alternate" available to resolve conflicts.
4. In certain documented circumstances, a student who will not be in the Montreal area during the deferred, replacement, supplemental, or alternate examination period can request to write his/her examination at another university or college. For information on writing examinations at an external institution, see §16.3.7 I.

16.3.8 Deferred "DEF," Medical "MED" Notations and Supplemental Examinations — Procedures and Regulations

I. Deferred "DEF" Notations

1. A student who has missed a final examination due to unforeseeable circumstances beyond his or her control can apply to have his or her original grade replaced by a temporary "DEF" notation. The original grade assigned must include a "DNW" notation.
Note: Unforeseeable and/or extraordinary circumstances may include, but are not limited to, a serious illness or severe injury; a recent death in one's immediate family; unexpectedly assuming responsibility of an immediate family member due to serious illness; severe emotional stress; fire. Personal travel is not an acceptable reason to be granted a "DEF" notation. In the case of work commitments or religious observations, see §16.3.7 I.4.
2. A "DEF" notation cannot be assigned in a course with an "R" or "NR" notation.
3. Application forms for "DEF" notations are available from the Birks Student Service Centre. **A completed application must be submitted to the Birks Student Service Centre, not to the instructor, department, or Faculty**, by January 15 for fall courses (term ending in 2), May 10 for fall/winter and winter courses (terms ending in 3 and 4) or August 31 for summer courses (session ending in 1). The application must be accompanied by a Concordia medical certificate or, if the reasons are not medical, by other appropriate documents indicating that the student was unable to write an examination on the day or days in question. If the required documentation is not available before the application deadline, the student should submit the request form and provide the supporting material as soon as possible.
Please note that in the case of absence due to short-term medical situations, the student must visit his or her medical practitioner **on or before** the date of the missed exam. Additionally, by submitting the Concordia medical certificate, the student authorizes the University to verify its legitimacy. Tampering, altering, or modifying the Concordia medical certificate in any way could lead to charges under the Code of Rights and Responsibilities and/or the Academic Code of Conduct.
4. The application for a "DEF" notation must be accompanied by a per-course processing fee. (See the Tuition and Fees website at concordia.ca/admissions/tuition-fees/how-fees-are-billed/undergraduate/fees for the current fee.)
5. The Registration and Examinations Office is entitled to ask the student to provide additional information.
6. When the Registration and Examinations Office approves the awarding of the "DEF" notation, it will temporarily replace the student's original grade for the course or courses concerned. The student is then entitled to write a deferred examination. For information about deferred examinations, see §16.3.7 II.
7. When the deferred examination has been completed and evaluated, a new grade will replace the "DEF" notation.
8. When a student receiving the privilege of writing a deferred examination does not write the examination during the specified period, the privilege will be withdrawn and a final grade in the course will be recorded by the Office of the Registrar according to the grade achieved by the student before the "DEF" notation was granted.
9. Requests for deferred examinations can be made in a maximum of three (3) exam sessions during a student's undergraduate or Independent studies at Concordia. Requests that exceed this number will be submitted to the University Examinations Committee for consideration. Refer to numbers 3, 4, and 5 of this section for information on the application process and deadlines.

II. Medical "MED" Notations

1. A student who has missed a final examination and/or been unable to complete course assignments due to a long-term medical situation can apply to have his or her original grade replaced by a "MED" notation. The original grade must include the "DNW" notation for a missed final examination; "INC" for course assignments not completed; "DNW/INC" when both elements are missing.
2. A "MED" notation cannot be assigned in a course with an "R" grade or "NR" notation.
3. Application forms for "MED" notations are available from the Birks Student Service Centre. **A completed application should be submitted to the Birks Student Service Centre, not to the instructor, department, or Faculty**, by January 15 for fall courses (term ending in 2), May 10 for fall/winter and winter courses (terms ending in 3 and 4), or August 31 for summer courses (session ending in 1). The application should be accompanied by a medical certificate on a physician's original letterhead indicating that a long-term medical situation prohibited the student from being able to complete the final examination on the day or days in question. If the required documentation is not available before the application deadline, the student should submit the request form and provide the supporting material as soon as possible.
4. The application for a "MED" notation must be accompanied by a per-course processing fee. (See the Tuition and Fees website at concordia.ca/admissions/tuition-fees/how-fees-are-billed/undergraduate/fees for the current fee.)
5. The Registration and Examinations Office is entitled to ask the student to provide additional medical information.
6. When the Registration and Examinations Office approves the acceptance of a medical certificate, the notation "MED" will replace the student's original grade for the course or courses concerned. For information about "MED" replacement examinations, see §16.3.7 II.
7. When the replacement examination or missing work has been completed and evaluated, a new grade will replace the "MED" notation. If the student does not write a replacement examination or complete the missing work, the "MED" notation will appear permanently on his or her student record and official transcript (e.g. "MED/DNW" or "MED/INC"). "MED" notations carry no grade point value. Courses with "MED" notations are not included in assessments of academic standing.
8. The University reserves the right to refer a student to a physician appointed by the University for a recommendation when the student repeatedly submits medical certificates.

III. Supplemental Examinations — Regulations

1. This section applies to Faculties with the exception of the Gina Cody School of Engineering and Computer Science. For the Gina Cody School of Engineering and Computer Science, please refer to §71.10.3 Academic Regulations – Supplemental Examinations.
 2. Each Faculty determines the courses it offers where a supplemental examination is available.
 3. A student must be in acceptable standing in order to write a supplemental examination.
 4. A student is permitted to write only one supplemental examination for a course, whether or not the course is being repeated.
 5. A student who has received a passing grade for a course may not write a supplemental examination for that course.
 6. A student who has received an "NR" or "R" grade may not write a supplemental examination for that course.
 7. Applications to write supplemental examinations are available from the Birks Student Service Centre. **A completed application should be submitted to the Birks Student Service Centre, not to the instructor, department, or Faculty,** by June 15 for fall/winter courses (terms ending in 2, 3 and 4), September 16 for summer courses (session ending in 1) or February 1 for graduating students (fall-term courses [term ending in 2] only).
 8. The application for a supplemental examination must be accompanied by a per-course processing fee. (See the Tuition and Fees website at concordia.ca/admissions/tuition-fees/how-fees-are-billed/undergraduate/fees for the current fee.) The supplemental fee is refundable only if the student is denied permission to write the supplemental.
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16.3.9 Academic Re-evaluation

I. General

1. Concordia University affirms the right of students to request the re-evaluation of course work, which includes tests, examinations, essays and other work that has contributed to the grading of a course. It is assumed that initiating a formal re-evaluation ("a re-evaluation request") is a last recourse, taken when prior and sincere attempts to resolve problems and disagreements informally and directly have failed.
2. Students have the right to see their course work. Students are responsible for the preservation of any material, in its entire and original form, which has been returned to them. A re-evaluation request may be refused if this material is not available.
3. Instructors are responsible for the preservation of course work that has not been returned to students as follows: until December 31 of the next calendar year for fall-term courses; until April 30 of the next calendar year for fall/winter and winter-term courses; and until August 31 of the next calendar year for summer-session courses.
4. In cases where grades are received for activities other than written or artistic course work, such as class participation, oral presentations, oral examinations and performance, no re-evaluation is normally possible. However, every attempt shall be made by the instructor concerned and the Chair of the Department to address the concerns raised by the student.
5. The grounds for a re-evaluation request are restricted to claims that
 - i) a miscalculation of the grade occurred; or
 - ii) the evaluation of the work was demonstrably unfair.
6. A grade may be maintained, raised or lowered as a result of a re-evaluation request.

II. Procedure

7. Students who are dissatisfied with the grade received on one or more pieces of course work shall first attempt to meet with the instructor and explain their position. If the student remains dissatisfied or is unable to meet with the instructor, he or she may, upon receiving the final grade for the course, make a re-evaluation request.
8. A re-evaluation request shall be made on an "Academic Re-evaluation Request" form available at the Birks Student Service Centre. The student shall specify the reasons for seeking the re-evaluation and shall indicate what informal attempts towards re-evaluation have been made. A processing fee must accompany the request. (See the Tuition and Fees website at concordia.ca/admissions/tuition-fees/how-fees-are-billed/undergraduate/fees for the current fee.)
9. A re-evaluation request with respect to a fall-term course must be made no later than the following February 1; with respect to a fall/winter or winter-term course, no later than the following June 15 and with respect to a summer-session course, no later than the following October 1. These deadlines may be extended by the University Registrar in particular cases if the student can provide evidence that he or she was unable to have acted within the deadlines.
10. The University Registrar shall forward the re-evaluation request to the Chair of the appropriate Department.
11. The Chair shall decide whether the re-evaluation request conforms to the criteria outlined in articles 4 and 5 above within ten (10) days of receiving the re-evaluation request.
12. If the Chair decides that the re-evaluation request does not conform to the criteria outlined in articles 4 and 5 above, he or she shall communicate this decision with reasons, in writing, to the student with a copy to the University Registrar. Should the student disagree with this decision, he or she has the right to appeal the Chair's decision to Re-evaluation Appeals Panel as set out in article 25 below.
13. Requests for review or other considerations that do not conform with the grounds for a re-evaluation request may fall under the purview of the Chair, the Dean, the Student Request Committee or other mechanisms.
14. If the Chair decides that the re-evaluation request conforms with the criteria outlined in articles 4 and 5 above, he or she shall appoint a re-evaluator whose name shall be communicated to the student and to the instructor concerned. Normally, the re-evaluator shall not be an instructor in whose course the student is registered at that time.
15. Before the re-evaluation begins, the instructor shall provide the Chair with information regarding the nature and structure of the course as well as the evaluation criteria and methods used. The Chair shall communicate this information to the re-evaluator.
16. The entire piece of work identified by the student shall be re-evaluated. The re-evaluator may request additional input from the student or the instructor.

17. The re-evaluation shall normally be completed within thirty (30) days of the Chair's decision that the re-evaluation shall proceed. If it becomes clear that the thirty (30) day delay cannot be met, the Chair shall immediately communicate this information to the student in order to determine whether any serious difficulties may arise from extending the delay. In the case where the thirty (30) day delay is extended, every effort shall be made to remedy any academic disadvantage that the student may experience as a consequence of the extension of the delay.
18. Upon completion of the re-evaluation, the re-evaluator shall assign a grade to the work in question and shall forward the re-evaluated material to the Chair along with a reasoned report. The reasoned report shall make mention of the documentation and methodology used. The Chair shall communicate the re-evaluation decision, in writing, along with the reasoned report, to the student, the instructor and the University Registrar, as well as whether the final grade for the course will be modified as a result of the re-evaluation decision.
19. In cases where there is a significant discrepancy between the original grade assigned and the grade assigned by the re-evaluator, the Chair may convene a meeting with the instructor and the re-evaluator in order to discuss the issue before communicating the decision to the parties concerned. If disagreement as to the discrepancy remains after the meeting, the re-evaluator's grade shall stand.
20. In cases where the re-evaluation decision reveals a generalized flaw in the original evaluation process, the Chair shall take appropriate steps to ensure that the grades of other students in the course are reviewed and modified if appropriate.
21. A final grade that is modified as a result of the re-evaluation shall be entered onto the student record and official transcript. If no appeal is filed, the modified grade shall permanently replace the original grade on the student record and official transcript. If an appeal is filed, an interim notation to the effect that the grade is "under appeal" shall accompany the grade until the final disposition of the case.

III. Appeals

22. A permanent Secretary of the Re-evaluation Appeals Panel (RAP) (the Secretary) shall be appointed by the Secretary-General. The Secretary shall be responsible for the administrative functioning of the RAP and shall maintain the confidential files of the RAP.
23. A RAP of three (3) members, as well as a non-voting Chair, shall be selected by the Secretary for a given appeal. The RAP shall be composed of two (2) faculty members drawn from the Faculty Tribunal Pool and one (1) student drawn from the Student Tribunal Pool as provided for under the Policy for the Establishment of Tribunal Hearing Pools. Every attempt will be made to select the student member from the student's constituency (undergraduate or graduate status).
24. A student or instructor may appeal a re-evaluation decision based on either substantive grounds or on the presence of serious and prejudicial procedural defects. In the case of an appeal from an instructor, "prejudicial" shall be limited to the effect that the alleged procedural defect has on other students in the course or on the academic standards of the University. The appeal must state in clear and precise terms the grounds on which the appeal is based. Such an appeal must be made, in writing, to the Secretary within fifteen (15) days after the date of transmission of the re-evaluation decision.
25. A student may appeal a Chair's decision that the re-evaluation request did not conform to the criteria outlined in articles 4 and 5 above. This appeal may be based on either substantive grounds or on the presence of serious and prejudicial procedural defects in the Chair's consideration of the re-evaluation request. The appeal must state in clear and precise terms the grounds on which the appeal is based. Such an appeal must be made, in writing, to the Secretary within fifteen (15) days after the date of transmission of the Chair's decision.
26. Upon receipt of an appeal from a student, the Secretary shall send a copy to the University Registrar, the Chair, the instructor and the re-evaluator, if appropriate, soliciting their input within ten (10) days. Any input received within the ten (10) day period shall be forwarded to all parties, soliciting their comments on the input within a further ten (10) days. All input and comments received within the twenty (20) day period shall form part of the dossier submitted to the RAP. Upon receipt of an appeal from an instructor, the Secretary shall send a copy to the University Registrar, the Chair, the student and the re-evaluator, if appropriate, soliciting their input within ten (10) days. Any input received within the ten (10) day period shall be forwarded to all parties, soliciting their comments on the input within a further ten (10) days. All input and comments received within the twenty (20) day period shall form part of the dossier submitted to the RAP.
27. The RAP shall render a decision, based on the written record only, normally within thirty (30) days of the filing of an appeal. The RAP shall meet at least once in person before rendering its reasoned decision.
28. In the case of an appeal of a re-evaluation decision, should the RAP determine that serious and prejudicial procedural defects were present in the re-evaluation process or that there are substantive grounds necessitating a new re-evaluation, it shall instruct the Chair to arrange for a new re-evaluation.
29. Should the RAP decide that an appeal be upheld in the case of an appeal of a Chair's decision that the re-evaluation request did not conform to the criteria outlined in articles 4 and 5 above, it shall instruct the Dean to arrange for a re-evaluation independent of the relevant Chair.
30. The RAP shall communicate its signed, dated and reasoned decision to the student, the instructor, the re-evaluator (if appropriate), the Chair and the University Registrar and shall include copies of all documentation considered.
31. The decision of the RAP is final.

IV. Miscellaneous Provisions

32. The word "days" is defined as working days, which excludes weekends, holidays and other days during which the University has reduced operations. In the calculation of any delay set out in these procedures, the months of July and August shall not be taken into account. In the case of an appeal submitted to the RAP before July 1, the regular delays set out in these procedures shall apply.

33. Any written notice addressed to a student pursuant to Section III – Appeals under these procedures shall be sent by courier to the last address provided by the student to the University and shall be deemed to be received one (1) day after delivery.
 34. If the course in question was taught by the Chair, the Dean shall assume all of the duties imposed on the Chair in these procedures. If the course in question does not form part of a department, the re-evaluation request shall be forwarded to the appropriate administrator responsible for the course.
 35. The overall responsibility for the implementation and recommended amendments to these procedures shall rest with the Provost and Vice-President, Academic.
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16.3.10 Academic Performance

I. Performance Regulations

Students are required to maintain an acceptable standard of scholarship. Each student's academic standing is assessed at the end of every year on the basis of an assessment grade point average (AGPA) as defined below.

The specific regulations applicable to students registered in each Faculty can be found in the following sections of the Calendar:

<u>Faculty/School</u>	<u>See Calendar Section</u>	<u>System Used</u>
Faculty of Arts and Science	31.003.1	AGPA
John Molson School of Business	61.22.1	AGPA
Gina Cody School of Engineering and Computer Science	71.10.3	AGPA
Faculty of Fine Arts	81.20.4	AGPA

These regulations may be modified in the case of students transferring either between Faculties or from another university.

II. Weighted Grade Point Average

All grade point averages are weighted and are calculated independently from one another.

A weighted grade point average is calculated as follows:

First, for each course attempted, the number of credits for the course is multiplied by the grade points obtained for the course, as specified in §16.1.11. Then, the sum of the grade points for all courses is divided by the total credits attempted.

$$\text{Weighted Grade Point Average} = \frac{\sum (\text{course credits} \times \text{grade points})}{\sum (\text{credits attempted})}$$

S = sum of

Example:

Course	Grade Achieved	Credit Value	Grade Points*	Weighted Grade Points
1	D	3.00	X 1.00	= 3.00
2	C+	3.00	X 2.30	= 6.90
3	B	2.00	X 3.00	= 6.00
4	A-	6.00	X 3.70	= 22.20
5	F	3.00	X 0.00	= 0.00
Total Credits Attempted 17.00		Total Weighted Grade Points 38.10		

$$\text{Weighted Grade Point Average} = \frac{38.10}{17.00} = 2.24$$

* As detailed in §16.1.11

a) Assessment Grade Point Average (AGPA)

An assessment grade point average (AGPA) for each student is calculated at the end of each academic year (including the summer session, fall and winter terms), provided that the student has attempted a minimum of 12 credits. If the student has attempted fewer than 12 credits, these credits will be included in the assessment for the following academic year.

When a student transfers from one degree or certificate to another degree or certificate, the AGPA is calculated only for courses recorded in the current degree or certificate. (This calculation normally excludes the grades for any transfer credits awarded.)

Special regulations for graduating students may be specified in each Faculty's regulations.

Grades for supplemental and replacement examinations and for late completion of courses with "INC" or "MED" notations are included in the assessment period in which they are recorded.

In the case of courses taken more than once in the same assessment period, only the grade corresponding to the latest attempt of the course will be used in the calculation of the AGPA.

In the Gina Cody School of Engineering and Computer Science, prerequisite courses required for admission to a program will not be counted unless they are specifically listed on the student's acceptance letter.

A grade obtained as the result of a penalty for academic misconduct will remain in the calculation of the AGPA whether or not the course has been repeated.

b) Cumulative Grade Point Average (CGPA)

The cumulative grade point average (CGPA) is the running total of the GPA since a student was admitted to the most recent degree (or certificate) program. It includes the same courses as were included in the calculation of the AGPA, and the courses for which "transfer credit" with an accompanying grade has been awarded in the most recent degree or certificate. In the case of repeated courses, only the grade corresponding to the latest attempt of the course will be used in the calculation of the CGPA. A grade obtained as the result of a penalty for academic misconduct will remain in the calculation of the CGPA whether or not the course has been repeated.

The CGPA is used as the basis to determine eligibility for high academic achievement (§16.1.9).

c) Final Graduation Grade Point Average (FGGPA)

The final graduation grade point average (FGGPA) is a CGPA of all courses applicable to the degree program being completed. In the case of transfer students, all courses taken at Concordia and transferred with the corresponding grades into the program being completed will be included in calculating the FGGPA. This FGGPA is calculated and recorded on the student record and official transcript only when a student graduates.

In the case of repeated courses, only the grade corresponding to the latest attempt of the course will be used in the calculation of the FGGPA.

A grade obtained as the result of a penalty for academic misconduct will remain in the calculation of the FGGPA whether or not the course has been repeated.

The FGGPA is used as the basis to determine eligibility for high academic achievement (§16.1.9).

d) Term Grade Point Average (TGPA)

The term grade point average (TGPA) is the grade point average of all courses taken during the term to which it refers and appears on the student record and official transcript. It is for reference only and is used primarily for advising. The TGPA is dynamic, meaning that grade changes and repeated courses will modify historical TGPA's. The TGPA is not used in the calculation of any other GPA.

III. Qualifying Programs and Visiting Students

Students registered in Qualifying programs or as Visiting students are subject to the regulations of the Faculty in which they are registered.

IV. Independent Students

1. Independent students are subject to the same grade point average requirements as students registered in programs offered by the Faculty of Arts and Science. (See §31.003.1)
2. Independent students who are classified as failed may not reregister without permission of the University Registrar.

V. Regulations for Failed Students and Students in Conditional Standing

1. Failed students or students in conditional standing are not eligible to write supplemental examinations.
2. Undergraduate students who are classified as failed may not reregister as Independent students.

VI. Recording of Failed and Conditional Standing

Assessment of academic standing is noted on the student record and official transcript.

17.10 Academic Integrity and the Academic Code of Conduct

- 17.10.1 ACADEMIC INTEGRITY**
- 17.10.2 UNDERSTANDING AND UPHOLDING ACADEMIC INTEGRITY**
- 17.10.3 ACADEMIC CODE OF CONDUCT**

17.20 Policy on the Establishment of Tribunal Hearing Pools

17.30 Rights and Responsibilities

17.40 Ombuds Office

Section 17

ACADEMIC INTEGRITY AND THE ACADEMIC CODE OF CONDUCT

Section 17.10

17.10.1 ACADEMIC INTEGRITY

Academic integrity is key to academic success at Concordia University. More specifically, "The integrity of University academic life and of the degrees, diplomas and certificates the University confers is dependent upon the honesty and soundness of the instructor-student learning relationship and, in particular, that of the evaluation process. Therefore, for their part, all students are expected to be honest in all of their academic endeavours and relationships with the University."

(Academic Code of Conduct, Article 1)

17.10.2 UNDERSTANDING AND UPHOLDING ACADEMIC INTEGRITY

Concordia University has several resources available to students to better understand and uphold academic integrity. Concordia's website on academic integrity can be found at the following address, which also includes links to each Faculty and the School of Graduate Studies: concordia.ca/students/academic-integrity.

The definitions, procedures, and sanctions related to charges of academic offences are outlined in the Academic Code of Conduct.

17.10.3 ACADEMIC CODE OF CONDUCT

I. Preamble

Introduction

1. Concordia University places the principle of academic integrity, that is, honesty, responsibility and fairness in all aspects of academic life as one of its highest values. This understanding of academic integrity directs our conduct in all academic matters, especially to the submission of work for academic evaluation and to student-professor and student-staff relationships. Instructors, students and administrators are expected to be honest and responsible in their academic conduct and fair in their assessment of academic matters.

The university community strives to provide a teaching and learning environment in which academic integrity is reflected in the student's dealings with faculty and staff and in their academic work and processes, where instructors foster academic integrity with their students, in their review of students' academic work, and in their exercise of academic processes, and where administrators promote academic integrity in initiating and implementing academic regulations and processes. Academic integrity is anchored in the shared responsibility of all members of the community. Instructors are responsible for clearly communicating course requirements and students are responsible for knowing and following such requirements.

The Academic Code of Conduct sets out for students, instructors and administrators both the process and the expectations involved when a charge of academic misconduct occurs. The regulations are presented within the context of an academic community which seeks to support student learning at Concordia University.

Jurisdiction

2. For the purposes of this Academic Code of Conduct, the student need only have been a student at the time of the alleged offence. For the sake of clarity, any former student accused of having committed academic misconduct is subject to this Academic Code of Conduct.
3. If, prior to the initiation of any proceedings under this Academic Code of Conduct, the student has graduated, the proceedings will nonetheless take place.
4. Neither the withdrawal by a student from a degree, diploma or certificate program or from a course, nor the termination of that student's program by his or her department shall affect the filing of an Incident Report or any process provided for under this Academic Code of Conduct.

Ambiguity

5. Wherever there is doubt or ambiguity regarding any provision of this Academic Code of Conduct or the procedure to be followed, that interpretation or procedure which appears to be most equitable and consistent with the general purposes and philosophy of this Academic Code of Conduct shall be adopted. Except for those terms specifically defined in this Academic Code of Conduct, the terms used shall have their usual meanings.

II. Definitions

Academic Hearing Panel or AHP

6. An Academic Hearing Panel or AHP is the body set forth at Article 49 of the present Academic Code of Conduct.

Appeals Authorization Panel

7. An Appeals Authorization Panel is the body set forth at Article 69 of the present Academic Code of Conduct.

Appeals Panel

8. An Appeals Panel is the body set forth at Article 74 of the present Academic Code of Conduct.

Administrator

9. Administrator, as allowed for in Article 29 and 31, means those individuals who through the normal course of their duties at the University may encounter possible incidents of academic misconduct. Examples of an administrator may include, but are not restricted to: Office of the Registrar or Admissions personnel, Graduate Program Directors, Associate Deans, Department Chairs or Heads, re-evaluators (see Academic Re-evaluation Procedures), invigilators and academic department staff.

Advocate

10. Advocate means a member of the University community who may assist the student or Dean throughout the proceedings and procedures associated with the Academic Code of Conduct.

Days

11. Days is defined as working days which excludes weekends, holidays, and other days during which the University is closed as listed in the Undergraduate and Graduate Calendars.

Dean

12. Dean is defined as:

- the Dean of the Faculty or School offering the program in which the student is registered; or
- if the student is not registered in a program, the Dean of the Faculty or School providing the course concerned or in the event that the offence is not related to a particular course, the Dean of the Faculty or School providing the most credits on the student's record; or
- if the student is a graduate student, the Dean of Graduate Studies.
- The Dean may designate a delegate to fulfill any of his or her obligations under this Academic Code of Conduct in which case they shall be termed the "Dean" for the purposes of this Academic Code of Conduct. Such delegate may be an Academic Code Administrator, an Associate Dean or any other personnel that the Dean deems appropriate.
- If the course concerned is taught by the Dean, the Provost and Vice-President, Academic shall assume all of the duties imposed on the Dean in this Academic Code of Conduct.

Invigilator

13. Invigilator means an instructor or any other person who is charged with supervising an examination.

Secretary of the Tribunals

14. A Secretary of the Tribunals shall be named and shall be responsible for the administrative functioning of the AHPs, of the Appeals Authorization Panels and of the Appeals Panels, including maintaining the confidential files and recordings of proceedings of the AHPs, of the Appeals Authorization Panels and of the Appeals Panels.

Student

15. Student, for the purposes of this Academic Code of Conduct, is defined as any person who has been accepted to study at the University at any point in time.

Student Record

16. The student record is a comprehensive, internal report of a student's academic history at the University. It is a complete academic record and includes all courses followed at Concordia. It is available to the student and to authorized University staff and faculty.

Student Transcript

17. The student transcript is a version of a student's record intended for the use of external institutions, organizations, and employers. It is a complete academic record and includes all undergraduate and/or graduate courses followed at the University.

III. Offences

18. Any form of cheating, or plagiarism, as well as any other form of dishonest behaviour, intentional or not, related to the obtention of gain, academic or otherwise, or the interference in evaluative exercises committed by a student is an offence under this Academic Code of Conduct. Any attempt at or participation related in any way to an offence by a student is also an offence.
19. Without limiting, or restricting, the generality of Article 18 above and with the understanding that Articles 19 a) to l) are to be considered examples only, academic offences include, the carrying out, or attempting to carry out or participating in:
- a. plagiarism — the presentation of the work of another person, in whatever form, as one's own or without proper acknowledgement;
 - b. the contribution by one student to another student of work with the knowledge that the latter may submit the work in part or in whole as his or her own;
 - c. unauthorized collaboration between students;
 - d. tearing or mutilating an examination booklet or an examination paper, including, but not limited to, inserting pages into a booklet or taking a booklet or a portion of the booklet or examination paper from the examination room;
 - e. multiple submission — the submission of a piece of work for evaluative purposes when that work has been or is currently being submitted for evaluative purposes in another course at the University or in another teaching institution without the knowledge and permission of the instructor or instructors involved;

- f. the obtention by theft or any other means or use of the questions and/or answers of an examination or of any other resource that one is not authorized to possess;
- g. the possession or use during an examination of any non-authorized documents or materials or resource or possessing a device allowing access to or use of any non-authorized documents or materials;
- h. the use of another person's examination during an examination;
- i. communication with anyone other than an invigilator during an examination or the obtention of any non-authorized assistance during an examination;
- j. impersonation — assuming the identity of another person or having another person assume one's own identity;
- k. the falsification of a document, in particular a document transmitted to the University or a document of the University, whether transmitted or not to a third party, whatever the circumstances;
- l. the falsification or fabrication of a fact or data or a reference to a source in a work.

Standard of Proof

20. The standard of proof which must be met in order for any offence to be upheld under the present Academic Code of Conduct is that of the "preponderance of evidence." A "preponderance of evidence" standard means that the Dean must establish that his or her version of the facts is significantly more probable than the alternative(s).

Sanctions

- 21. If a charge is upheld against a student by the Dean pursuant to Article 42, and the Dean does not refer the case directly to an AHP, the Dean must impose one or more of the following sanctions:
 - a. Reprimand the student;
 - b. Direct that a piece of work be re-submitted;
 - c. Direct that the examination be taken anew;
 - d. Enter a grade reduction for the piece of work in question or enter a grade of "0" for the piece of work in question;
 - e. Enter a grade reduction in the course or enter a failing grade for the course;
 - f. Enter a failing grade and ineligibility for a supplemental examination or any other evaluative exercise for the course;
 - g. Impose the obligation to take and pass courses of up to twenty-four (24) credits, as specified by the Dean, in addition to the total number of credits required for the student's program. If the student is registered as an Independent student, the sanction will be imposed only if he or she applies and is accepted into a program.
- 22. If a charge is upheld by an AHP pursuant to Article 62, the AHP must impose one or more of the following sanctions:
 - a. Any or all of the sanctions listed at Article 21;
 - b. Impose a suspension for a period not to exceed six (6) academic terms. Suspensions shall entail the withdrawal of all University privileges, including the right to enter and be upon University premises;
 - c. Expulsion from the University. Expulsion entails the permanent termination of all University privileges.
- 23. In the case of a student who has graduated, the only two available sanctions are i) a notation on the student's academic record that he/she has been found guilty of academic misconduct; or ii) a recommendation to Senate for the revocation of the degree obtained.
- 24. A sanction of suspension or expulsion is subject to confirmation by the Provost and Vice-President, Academic, who shall also determine the effective date.
- 25. Any student found to have committed a second offence shall normally be suspended or expelled from the University subject to confirmation by the Provost and Vice-President, Academic.

IV. Procedures

General Provisions Governing Evaluative Exercises

- 26. It is the responsibility of members of the University to uphold academic integrity. As such, any member of the University who has reasonable grounds to believe that a student has committed an offence pursuant to this Academic Code of Conduct will promptly report his or her findings to the appropriate authority as defined in Articles 29 to 31 or 35 to 36 of this Academic Code of Conduct.
- 27. A member of the University who identifies the alleged academic misconduct may not, on his or her own authority, impose a sanction upon a student. Rather, alleged offences shall be handled only as set forth in this Academic Code of Conduct.
- 28. Every examination paper shall expressly list the materials and equipment that a student is permitted to have and use during the examination and shall indicate any special conditions relating to the examination.
- 29. An instructor, supervisor, re-evaluator or administrator who, in the course of grading a student's work or through any other means, has reasonable grounds to believe that a student has committed an offence pursuant to this Academic Code of Conduct shall complete an Academic Code of Conduct Incident Report ("Incident Report"), see Appendix A. The instructor, supervisor, re-evaluator or administrator shall forward the Incident Report to the Dean.
- 30. A Teaching Assistant who, in the course of grading a student's work or through any other means, has reasonable grounds to believe that a student studying or working under his or her direction has committed an offence pursuant to this Academic Code of Conduct shall inform the instructor of the course within which the alleged offence occurred. If the instructor believes that there are reasonable grounds to support that such alleged offence occurred, the instructor shall forward the Incident Report to the Dean.
- 31. Should a person other than an instructor, a supervisor, a re-evaluator, an administrator, a Teaching Assistant or an invigilator of a centrally supervised examination have reasonable grounds to believe that a student has committed an offence, he or she may report his or her findings to the Department Chair, or equivalent. If the Chair, or equivalent, finds that there are reasonable grounds, he or she shall complete an Incident Report. The Chair or equivalent shall forward the Incident Report to the Dean.

Centrally Supervised Examinations

32. Where an examination is supervised by the Office of the Registrar or where another central supervisory function is available to deal with allegations of offences related to examinations, a student who is suspected of an academic offence shall be so informed by the invigilator and shall be required to leave the examination area.
33. Communication with the student shall be restricted to requesting that he or she, in a written statement, choose one of the following options on a completed Academic Code of Conduct Incident Report, see Appendix A at concordia.ca/content/dam/common/docs/policies/official-policies/IR-CentrallySupervisedExaminations.pdf:
 - a. to withdraw from the examination with the understanding that if the charge is dismissed, the student shall be permitted to take another examination for the same course at a mutually agreed upon time. Normally the exam should be written at the University's next offered exam period after the final disposition of the case; or
 - b. to continue the examination under controlled conditions in another location in which case the invigilator shall provide a fresh examination booklet and shall allow additional time for the examination to compensate for any time lost. The student shall continue the examination from the point at which he or she was required to leave the examination area; or
 - c. to acknowledge that the exam has been completed.
34. Should the student not indicate a choice, he or she shall be considered to have chosen to withdraw from the examination. Until such time as the student has indicated that he or she has chosen to withdraw from the examination or is deemed to have done so, he or she remains under examination conditions.
35. The invigilator shall file an Incident Report with the Dean, as defined in Article 12 of this Academic Code of Conduct, and shall include all examination materials as well as any other evidence related to the suspected academic offence. The invigilator may not, on his or her own authority, impose a sanction on the student.

Other Examinations

36. Where an examination is not supervised by the Office of the Registrar or where another central supervisory function is not available to deal with allegations of offences related to examinations, a student who is suspected of an academic offence during an examination shall be so informed by the individual invigilating the examination and may be required to leave the examination area immediately. The procedures for completing and filing an Incident Report shall be those set forth at Articles 29 to 31 above.

Notification Letter and Pending Notation

37. Upon receipt of an Incident Report, the Dean shall send a copy to the student, the Registrar and the Secretary of the Tribunals and shall indicate in a Notification Letter whether or not he or she intends to interview the student to inquire into the alleged offence or whether or not the Incident Report is being transmitted directly to an AHP. The Dean shall, as well, include a copy of this Academic Code of Conduct. Notwithstanding the above, the Dean may, in all cases including when a student does not respond to the Dean's request for an interview or when a student fails to attend or refuses to attend an interview, choose to not interview the student.
38. Upon receipt of an Incident Report, the Registrar shall note on the academic record that the grade is "pending" (PEND) until the outcome of the charge and, if applicable, the sanction(s) is(are) imposed and final. If a student withdraws from the course, the Registrar will replace the withdrawal (DISC) notation by a pending (PEND) notation until the outcome of the charge and, if applicable, the sanction(s) is(are) imposed and final.
No degree, diploma or certificate of the University shall be conferred or awarded from the time of the receipt by the Registrar of an Incident Report until the final disposition of the charge.

Interviews

39. Should the Dean decide to interview the student, the interview shall normally take place within fifteen (15) days of the Dean's receipt of the Incident Report. Whenever possible, five (5) days' notice shall be given to the student before the interview.
40. If the interview is for an alleged first offence, the purpose of such interview is for the Dean to ascertain whether or not an offence occurred and to obtain information regarding any and all circumstances and evidence that mitigate or aggravate such alleged offence. If the interview is for an alleged repeat offence, the purpose of such interview is for the Dean to ascertain whether or not an offence occurred.
In convening the interview with the student, the Dean shall inform the student that he or she may consult any person and be accompanied or be represented by an advocate during the interview.
41. At the outset of the interview, the Dean shall inform the student that he or she is not obliged to answer any of the Dean's questions and that any answers given may become the basis for an immediate disposition of the case under Article 42 or cause the Dean to refer the case to an AHP or be the subject of testimony by both parties at any subsequent proceeding. Students may participate in interviews in either English or French.

Dean's Decision Letter

42. Normally, within ten (10) days from the conclusion of the interview, the Dean shall write to the student indicating his or her decision to: (i.) dismiss the charge; or (ii.) uphold the charge. In the case of upholding the charge, the Dean must impose one or more of the sanctions listed at Article 21 or refer the case directly to an AHP. For all cases of repeat offences, the matter is to be referred directly to an AHP if the charge is upheld by the Dean.
43. If the Dean has decided not to interview the student, he or she shall transmit the decision letter directly to the student and to the Secretary of the Tribunals normally within fifteen (15) days of receipt of the Incident Report.
44. If the Dean has decided to dismiss the charge, a copy of the letter dismissing the charge shall be sent to the Secretary of the Tribunals, the Registrar, the instructor and the Department Chair, or equivalent, if applicable, and the Dean shall direct the instructor to submit a grade for the course in question, if applicable.

45. In the case of a sanction imposed by the Dean under Article 21, the letter to the student shall inform him or her of the right to obtain a hearing before an AHP by notifying the Secretary of the Tribunals, in writing, as per Article 51, within ten (10) days after the date of transmission of the Dean's decision. A copy of the Dean's letter shall be sent to the Secretary of the Tribunals, the Registrar, the instructor, the Graduate Program Director, and the Department Chair, or equivalent, if applicable.
46. Where the Dean has imposed a sanction under Article 21 and the student has not elected to have the case heard by an AHP under Article 45, the Secretary of the Tribunals shall, within a reasonable time, so notify the Dean and the Dean shall file a report with the Registrar containing the following:
 - a. identification of the student concerned;
 - b. a statement of the facts and findings;
 - c. a statement of the course of action taken;
 - d. a statement to the effect that the student concerned was notified in writing of the action taken and of his or her right to a hearing before an AHP. Such report shall form a part of the student's permanent file maintained by the Registrar.
47. Upon receipt of the notification from the Secretary of the Tribunals pursuant to Article 46, the Dean shall direct the instructor to submit a grade for the course in question, if applicable.
48. When the student has elected to obtain a hearing under Article 45, the execution of any decision of the Dean relating to the Incident Report shall be suspended pending disposition by an AHP.

The Academic Hearing Panel

49. An AHP of five (5) members, as well as a non-voting Chair, shall be selected by the Secretary of the Tribunals for a given hearing. The AHP shall be composed of three (3) faculty members drawn from the Faculty Tribunal Pool and two (2) students drawn from the Student Tribunal Pool provided for under the *Policy on the Establishment of Tribunal Hearing Pools* (BD-6). Every attempt will be made to select at least one (1) faculty member and one (1) student from the student's constituency (i.e. by faculty and undergraduate or graduate status).
50. With the consent of both parties, the AHP shall proceed with a reduced AHP. A reduced AHP shall be composed of the non-voting Chair as well as two (2) faculty members and one (1) student.
51. A hearing shall be convened as soon as possible after the receipt by the Secretary of the Tribunals of the notification. The Secretary of the Tribunals shall inform the parties of the academic term during which it is expected that the AHP will be held, within fifteen (15) days of the Secretary of the Tribunals' receipt of the notification, and shall inform the student that he or she may consult any person and to be accompanied or represented before the AHP by an advocate.
52. Once a hearing date is fixed by the Secretary of the Tribunals, both parties shall submit all documentation they wish considered by the AHP to the Secretary of the Tribunals no later than ten (10) days before the scheduled hearing date. Such documentation shall include all documents that a party wishes to use to support his or her case, and may include any documents submitted during the interview process, and a list of the witnesses, if any, that will appear. Any documentation or any names of witnesses submitted after the above deadline may be accepted by the AHP, at the discretion of the Chair of the AHP, further to representations made by the parties. In making the decision as to whether to accept additional documentation or witnesses after the deadline, along with other considerations, the Chair of the AHP may take into account when the documentation or name(s) of the witness(es) was submitted, the reasons for the late submission, and any prejudice that either party may suffer due to such late submission, or any other relevant motives.
53. The Secretary of the Tribunals shall transmit the documentation submitted by the parties, together with a list of the members of the AHP selected for the case, the present Academic Code of Conduct and the Procedures of the AHP, to the parties no later than five (5) days before the scheduled hearing date.
54. Either party may object to the participation of a panelist on the grounds of potential bias. A reasoned objection shall be filed with the Secretary of the Tribunals in writing at least three (3) days prior to the hearing date. The Secretary of the Tribunals shall arrange for an alternate member of the AHP to serve if he or she determines that the objection is well-founded. If the matter cannot be resolved, the issue shall be forwarded to the Chair of the AHP who shall render a final decision in this regard.
55. When the offence involves more than one student, either the student(s) or the Dean(s) may request that the Secretary of the Tribunals schedule a joint hearing. The consent of the other party and each of the students called upon to participate shall be obtained prior to proceeding with a joint hearing. The AHP has the discretion to uphold or dismiss the charge against each student and to apply the appropriate individual sanction(s).
56. If a student wishes to withdraw his or her request for a hearing, normally the student shall notify the Secretary of the Tribunals of the withdrawal at least twenty (20) days prior to the hearing date. Following such a withdrawal, the Secretary of the Tribunals shall inform the Dean of such withdrawal and the Dean shall file a report with the Registrar, according to Article 46, and include the information that the student withdrew his or her request for a hearing.
57. The AHP shall establish its own rules of procedure. Minimally, these rules shall provide for opening statements by the parties, evidence and witnesses called by the parties (expert or otherwise), the right of cross-examination, questioning by members of the AHP, representations with respect to desired sanctions and closing statements. Hearings shall be recorded and the recordings kept as part of the permanent record of the proceedings for a period of not less than five (5) years. Recordings shall be provided to a party to a hearing upon his or her written request to the Secretary of the Tribunals.
58. The role of the Chair shall be to preside over the proceedings, keep order and ensure fairness. The Chair shall, as well, preside over the deliberations of the AHP but shall not vote.
59. The hearing shall be closed unless both parties have consented in writing to the attendance of other people.
60. If either party fails to attend the hearing, the hearing may proceed in the other party's absence or, at the Chair's discretion the start of the hearing may be delayed. If the hearing proceeds in the student's absence, all rights contingent on the student's presence, with the exception of the right to have an advocate present, are forfeited. In such a case, a student's right of appeal is limited to a consideration of the reasonableness of his or her excuse for not appearing. If an Appeals Panel finds that the excuse is reasonable, it shall order a new hearing by a new AHP with the student present. The decision of the new hearing with the student present is appealable as if it were a first hearing.

61. At a Hearing for a student charged with a repeat offence, other than the fact that a previous charge has been upheld and is, therefore, relevant in relation to Article 25, any and all other information concerning the charge(s), including the nature of the offence(s) and the sanction(s) imposed, shall be excluded unless the student chooses to have such information discussed.
62. Decisions of the AHP shall be by majority vote. In its deliberations, the AHP shall first decide whether to uphold or dismiss the charge based on the applicable standard of proof. If the AHP decides to uphold the charge, with the exception of cases of repeat academic offences wherein Article 25 shall apply, it shall subsequently impose one or more of the sanctions that appear at Article 22.
63. Within ten (10) days from the conclusion of the hearing, the AHP shall write to the student and the Dean, with a copy to the Registrar and the instructor, indicating its decision. The decision of the AHP shall be signed, dated and reasoned. Furthermore, the decision of the AHP shall inform the parties of their right to submit a written request for authorization to appeal the decision of the AHP within fifteen (15) days after the date of transmission of the AHP decision.
64. The execution of any sanctions by an AHP shall be suspended, and the PEND notation shall remain on the student's record, until the expiry of the fifteen (15) day delay to request authorization to appeal or until the final rendering of the decision by an Appeals Authorization Panel and, if applicable, the Appeals Panel.

Appeals

65. A request for authorization to appeal may be based only on the grounds of discovery of new evidence following the AHP or on the presence of serious and prejudicial procedural defects of the AHP. In his or her request for authorization to appeal, an appellant must set forth and explain in clear and precise terms, all grounds on which the appeal is based. Furthermore, if the appellant is requesting an appeal based on the grounds of discovery of new evidence following the rendering of the decision of the AHP, the appellant must provide such evidence as part of his or her request.
66. If neither the Dean nor the student has requested authorization to appeal within the fifteen (15) day delay stipulated at Article 63, the Secretary of the Tribunals shall so inform the Registrar including a statement to the effect that the Dean and the student concerned were notified in writing of the decision of the AHP and of their right to submit a request for authorization to appeal such decision. Such report shall form a part of the student's permanent file maintained by the Registrar. This notification shall be sent to the Dean and the student.
67. If the Dean or the student has requested authorization to appeal the decision of the AHP, the Secretary of the Tribunals shall forward such request to the other party, with a copy to the Registrar, soliciting his or her written response within ten (10) days. Any response received by the Secretary of the Tribunals within the ten (10) day period shall be forwarded to the appellant and, if the appellant wishes, he or she may submit a written rebuttal within a further ten (10) days.
68. An Appeals Authorization Panel shall be convened by the Secretary of the Tribunals as soon as possible after the expiry of the delay to submit written input and normally within fifteen (15) days.
69. The Appeals Authorization Panel shall be selected by the Secretary of the Tribunals and shall be composed of three (3) members, as well as a non-voting Chair, none of whom may have sat as members of the AHP under appeal. The Appeals Authorization Panel shall be composed of two (2) faculty members drawn from the Faculty Tribunal Pool and one (1) student drawn from the Student Tribunal Pool. Every attempt will be made to select the student member from the student's constituency (undergraduate or graduate status).
70. The Appeals Authorization Panel must decide whether authorization to appeal the decision of an AHP will be granted having regard to the allowable grounds of appeal and the circumstances of the case.
71. The Appeals Authorization Panel shall be provided with all written evidence provided to the AHP, the decision of the AHP, the recording of the AHP, the request for authorization to appeal, and all written input received within the twenty (20) day period set forth at Article 67. The decision of the Appeals Authorization Panel shall be based solely upon the documents and recording listed in the present Article. Neither party is permitted to attend or make oral representations before the Appeals Authorization Panel.
72. The Appeals Authorization Panel shall have the authority to grant or deny authorization to appeal based only on the grounds for appeal set forth in the present Academic Code of Conduct. If it grants authorization to appeal based on the grounds of discovery of new evidence following the rendering of the decision of the AHP or the reasonableness of the student's excuse for not appearing before the AHP pursuant to Article 60, the Appeals Authorization Panel may order a new hearing of the case by a new AHP or may forward the file to an Appeals Panel. If it grants authorization to appeal based on the grounds of presence of serious and prejudicial procedural defects of the AHP, it shall forward the file before an Appeals Panel.
73. The Appeals Authorization Panel shall normally render its decision within ten (10) days of its consideration of the request. The decision of the Appeals Authorization Panel shall be signed, dated and reasoned and shall be sent to both parties and the Registrar.
74. If a file is forwarded to an Appeals Panel, a panel of three (3) members, as well as a non-voting Chair, shall be composed by the Secretary of the Tribunals. The Appeals Panel shall be composed of two (2) faculty members drawn from the Faculty Tribunal Pool and one (1) student drawn from the Student Tribunal Pool. Every attempt will be made to select the student member from the student's constituency (undergraduate or graduate status).
75. If the authorization to appeal is granted, the Appeals Panel shall normally take place within twenty (20) days of the decision to authorize the appeal. Notification of the scheduling of the Appeals Panel shall be sent to both parties.
76. The Secretary of the Tribunals shall transmit the documentation listed at Article 71 as well as the decision of Appeals Authorization Panel, together with a list of the panel members selected for the Appeals Panel and the present Academic Code of Conduct, to the parties no later than five (5) days before the scheduled hearing date.
77. If either party fails to attend the Appeals Panel, the hearing may proceed in the other party's absence or, at the Chair's discretion the start of the hearing may be delayed.
78. The Appeals Panel shall establish its own rules of procedure. All representations before the Appeals Panel shall be limited to representations as to the grounds further to which authorization to appeal was granted by the Appeals Authorization Panel.

79. The Appeals Panel has the authority to confirm, reverse or modify the decision being appealed. Further, should the appeal be based on the production of new evidence, the Appeals Panel may order a new hearing of the case by a new AHP.
80. The Appeals Panel shall normally render its decision within ten (10) days of the hearing. The decision of the Appeals Panel shall be signed, dated and reasoned and shall be sent to both parties, the Registrar and the instructor.
81. The decision of the Appeals Authorization Panel and, if an appeal is authorized, the Appeals Panel shall be final.

V. Miscellaneous Provisions

Delays and Language

82. In the calculation of any delay set out in the Academic Code of Conduct, the final examination period for the fall and winter academic terms and the months of July and August shall not be taken into account. In the case of a hearing before an AHP or an Appeals Panel that commenced before July 1, the regular delays set out in this Academic Code of Conduct shall apply.
83. Any party or witness participating in a hearing before an AHP or an Appeals Panel may make their presentation in either English or French. If an interpreter is required to satisfy the preceding, the request shall be made at the same time as the initial AHP request made in accordance with Article 45.

Notices

84. Any written notice addressed to a student pursuant to this Academic Code of Conduct shall be sent by registered mail, with a copy sent by email, to the address of residence and the email address most recently provided by the student to the University, through his or her MyConcordia Portal. All written notices shall be deemed to be received one (1) day after delivery.

Notations on Student Record and Student Transcript

85. When a charge of academic misconduct has been upheld, the charge and the sanctions shall be reflected on the student's Student Record with the sanction appearing as the appropriate Article (21 or 22) and the additional notation of "for academic and disciplinary reasons." When the sanction imposed is the one set forth at Article 21 g), the number of extra credits imposed shall also be noted.
86. Sanctions of a failing grade in a course, a failing grade in a course and further ineligibility for a supplemental examination, and the obligation to take extra courses shall be reflected on the student's Student Transcript with no additional notations relating to academic misconduct. A grade obtained as the result of a penalty for academic misconduct shall remain in the calculation of all of the student's GPAs, whether or not the course has been repeated.
87. Suspensions imposed under this Academic Code of Conduct shall be recorded on the Student Record and the Student Transcript as follows: "Required to withdraw for academic and disciplinary reasons. May not resume studies until [date]." At the date for resumption of studies, the notation shall be removed from the student's Student Transcript but shall continue to appear on the student's Student Record.
88. The Provost may, upon written request from a student and in cases where the Provost considers it appropriate, direct that a notation of a sanction as stated at Article 85, with the exception of expulsion, be removed from the student's Student Record.
89. Any expulsion imposed under this Academic Code of Conduct shall be recorded on the Student Record and the Student Transcript as follows: "Required to withdraw for academic and disciplinary reasons. May not apply for readmission."

Records and Confidentiality

90. The Registrar shall maintain a record in the student's official file with respect to all sanctions imposed under this Academic Code of Conduct.
91. In all cases where a charge of academic misconduct has been upheld, the responsibility for maintaining the complete file shall rest with the Dean.
92. All records shall be kept in strictest confidence and shall only be communicated to the student concerned and to other persons within the University having a legitimate interest or duty to take communication of them.
In the event that a charge is dismissed at any level provided for in the Academic Code of Conduct, all information relating to the charge will be removed from the files held by the Dean and the Registrar and will have no effect on a student's academic record or future academic activities. However, in accordance with the legislation governing the keeping of records, a record of the charge and its dismissal will be kept, in a confidential file by the Secretary of the Tribunals and will be destroyed within the time-frame outlined by the University's archives retention rules.
93. Nothing contained in this section shall be interpreted as preventing the Registrar or any other University member from responding to a court order requiring the disclosure of information or statements obtained in the course of an interview or hearing conducted under this Academic Code of Conduct.

Annual Report

94. An annual report detailing the number and type of charges laid under this Academic Code of Conduct and their disposition shall be prepared by the Secretary of the Tribunals and presented to Senate by September 30 of each year. The report shall be published on the University's website. In no circumstances shall any mention be made of the names of the students involved nor of any information, which might lead to their identification.

Overall Responsibility for the Academic Code of Conduct

95. The overall responsibility for the implementation and recommended amendments to this Academic Code of Conduct shall rest with the Secretary-General.

POLICY ON THE ESTABLISHMENT OF TRIBUNAL HEARING POOLS

Section 17.20

General

1. This policy deals with the establishment of tribunal hearing pools for hearings, both first-level hearings as well as appeal hearings, provided for in the Code of Rights and Responsibilities, the Academic Code of Conduct (including cases heard under the previous Code of Conduct – Academic), the Academic Re-evaluation Procedures, the Graduate Academic Appeals Procedures and any other codes or policies which may be adopted that refer to the Tribunal Hearing Pools provided for under this policy.
2. In the event that a hearing or appeal panel cannot be convened from the membership of the Student Tribunal Pool, the Faculty Tribunal Pool, the Administrative and Support Staff Tribunal Pool or the Pool of Chairs, as outlined below, the Secretary-General shall designate the membership of the relevant hearing or appeal panel for a given case.

Student Tribunal Pool

3. In June of each year, the Concordia Student Union Inc. shall be asked to nominate up to a maximum of fifteen (15) undergraduate students and the Graduate Student Association shall be asked to nominate up to a maximum of ten (10) graduate students to form the Student Tribunal Pool (STP).
4. In order to be eligible, students shall be registered in an undergraduate or graduate program and be in good standing. Students who are in failed standing, in conditional standing or on academic probation or who have been sanctioned under the Code of Rights and Responsibilities, or the Academic Code of Conduct (including cases heard under the previous Code of Conduct – Academic) within the three (3) years previous to their nomination are not eligible.
The status and standing of student nominees shall be confirmed by the University Registrar in September prior to the submission of the list of nominees for approval to Senate by the Secretary of Senate. In addition, the status and standing of members of the STP shall be confirmed by the University Registrar each September for as long as the member remains in office.
5. The term of office of members of the STP shall be for two (2) years, from September 1 to August 31, and shall be renewable. Members remain in office until replaced.

Faculty Tribunal Pool

6. The Council of the Faculty of Arts and Science shall nominate thirteen (13) faculty members, the Council of the John Molson School of Business shall nominate six (6) faculty members, the Council of the Gina Cody School of Engineering and Computer Science shall nominate five (5) faculty members, the Council of the Faculty of Fine Arts shall nominate three (3) faculty members and the Council of the School of Graduate Studies shall nominate eight (8) faculty members, for a total of thirty-five (35) faculty members, to comprise the Faculty Tribunal Pool (FTP).
7. The term of office of members of the FTP shall be for two (2) years, from September 1 to August 31, and shall be renewable. Members remain in office until replaced.
8. The Secretary of each Faculty Council and the Council of the School of Graduate Studies shall forward a list of nominees to the Secretary of Senate prior to its September meeting for approval.

Administrative and Support Staff Tribunal Pool

9. The Administrative and Support Staff Tribunal Pool (AaSSTP) shall be comprised of five (5) members nominated in accordance with the Electoral College Policy.
Administrative and support staff members from the Office of the Secretary-General, the Office of the General Counsel, the Office of Student Tribunals, the Ombuds Office and the Office of Rights and Responsibilities shall not be eligible for membership on the AaSSTP.
10. The term of office of members of the AaSSTP shall be for two (2) years, from September 1 to August 31, and shall be renewable. Members remain in office until replaced.
11. The Department of Human Resources shall forward a list of nominees to the Secretary of the Board of Governors prior to its September meeting for approval.

Chairs

12. In addition to the members of the STP and FTP appointed by Senate, and the members of the AaSSTP appointed by the Board, Senate shall appoint as many individuals as necessary to serve as non-voting Chairs of the various tribunal panels dealt with under this policy.
13. The role of the Chairs shall be to preside over the various tribunal panels, keep order and ensure fairness. The Chairs shall, as well, preside over the deliberations of the various tribunal panels but shall not vote.

14. Because the role of the Chairs of the various tribunal panels requires impartiality and particular skills which take time to develop and cannot easily be acquired by lay persons during a brief term of office, the Chairs shall normally be selected from qualified alumni or emeriti who have training in law or tribunal procedures as well as some knowledge of the University environment.
15. The term of office for Chairs shall be for two (2) years, from September 1 to August 31, and shall be renewable.
16. The candidates for the Chairs shall be recommended to Senate by the University General Counsel in consultation with the secretaries of the tribunal panels dealt with under this policy. Curriculum vitae of the candidates shall accompany the recommendation.

Training

17. All members of the STP, FTP and AaSSTP, and all Chairs shall receive training, prepared and conducted jointly by the secretaries of the tribunal panels dealt with under this policy under the supervision of the University General Counsel.
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RIGHTS AND RESPONSIBILITIES

Section 17.30

Director, Rights and Responsibilities
LISA WHITE

Location

Sir George Williams Campus
Office of Rights and Responsibilities
GM Building, Room: 1005.00
514-848-2424, ext. 8659
rights@concordia.ca

CODE OF RIGHTS AND RESPONSIBILITIES

Section I: Statement of Principles

The Code of Rights and Responsibilities

1. The Code of Rights and Responsibilities (the "Code") has, as its grounding principles, the values of civility, equity, respect, non-discrimination and an appreciation of diversity as manifested within the University and within society-at-large.

Rights Promoted and Protected by the Code

2. All Members of the University, as defined in Section III of the Code, may reasonably expect to pursue their work, studies and other activities related to University life in a safe and civil environment. As such, neither the University nor any of its Members shall condone any conduct which adversely affects the University or any of its Members.
3. All Members have the freedom of conscience and religion; freedom of thought, belief, opinion and expression; freedom of peaceful assembly and freedom of association, the whole subject to the limits recognized by law and University policies and procedures.

Academic Freedom

4. The Code is not to be applied in such a way as to detract from the right of Members to engage in the frank discussion of potentially controversial matters, such as race, sex, sexual orientation, gender identity, politics or religion. Furthermore, the Code shall not be interpreted in such a way as to limit the use of legitimate instructional techniques, such as irony, argument, conjecture and refutation, or the assignment of readings, which may present a controversial point of view. The Code also recognizes the right to teach, within the bounds of the course calendar description and requirements of competence, and to conduct research and to engage in creative activity according to one's best judgment.

Responsibilities

5. All Members are expected to refrain from violating the Code and those who have supervisory authority over others bear a particular responsibility to act in a timely and effective manner when they become aware of any alleged violation of the Code.

Complaints Subject to a Range of Responses

6. In keeping with its desire to settle conflicts in an effective and constructive manner, the University and its Members shall endeavour to seek an appropriate response to any alleged violations of the Code, ranging from the use of informal methods of conflict resolution to formal procedures for adjudicating complaints. Every attempt shall be made to use remedies and sanctions that restore harmony, collegiality and cooperation between Members. Other University policies such as the *Policy regarding Sexual Violence* (PRVPAA-3), the *Policy on Student Involuntary Leave of Absence* (PRVPAA-15) and other University policies may also be applied.

Fairness and Consistency

7. Complaints made under the Code shall be adjudicated in a manner that is consistent with the principles of natural justice and fair for all parties, regardless of constituency. The principles of natural justice may be defined broadly as the right to be heard, the obligation to hear the other side and decisions to be made untainted by bias.

Management Rights

8. The Code is not to be applied in such a way as to detract from the right and duty of those with supervisory authority to manage and, if necessary, to discipline Members in accordance with collective or employee agreements and University policies and procedures.

Union Rights

9. The Code is not to be applied in such a way as to detract from the rights of unions or employee associations to defend the interests of their members and to exercise their rights under a collective or employee agreement.

Recourse at Law

10. The Code does not detract from the right of Members to seek recourse at law.

Code Does Not Supersede Other Policies or Agreements

11. Nothing in the Code shall replace or supersede any complaint, grievance or appeal procedure set out in any collective or employee agreement to which the University is a party, the Academic Code of Conduct, the University Calendars or other University policies or procedures.
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Section II: Mandate and Functions of the Office of Rights and Responsibilities and the Advisor

12. The mandate of the Office is to assist Members in resolving incidents involving an alleged violation of the Code in an effective and constructive manner. Such assistance is available both to Members who believe that they have been subjected to conduct that violates the Code and to those with supervisory authority who are called upon to respond to incidents of such conduct. The operations of the Office are directed by the Advisor.
 13. The Advisor shall actively promote, through education and direct intervention, the values outlined in article 1 while carrying out all duties described in the Code. The Advisor shall be impartial in the exercise of duties, shall respect the confidentiality of all who seek assistance from the Office, and shall do so in a non-judgmental manner. The Administration of the University shall respect the independence of the Office as it carries out its duties.
 14. The Advisor shall advise, assist and support Members who are experiencing behavioural problems from another Member, as described in the Offences section of the Code, and shall endeavour to seek an appropriate response to any alleged violation. Responses may range from the use of informal dispute resolution methods to formal procedures for adjudicating complaints.
 15. The Advisor may, when warranted, make recommendations to University authorities regarding situations within a unit, department, faculty, or the University as a whole, which have the general effect of violating the rights of Members to pursue their work, study, and other activities related to University life in a safe and civil manner in keeping with the values espoused by the University and outlined in the Code.
 16. The Advisor shall submit an annual report to the Secretary-General by December 15 of each year covering the previous academic year. The report shall detail the activities of the Office, including statistics on complaints received, and make recommendations, as necessary, with regard to either the Code or the operations of the Office. The report shall be made available by way of the University's publications and shall be submitted, for information purposes, to the Senate and Board of Governors.
 17. If a Member considers that the Advisor has failed to follow the procedures outlined in the Code with respect to any matter to which the Member has been a party, that Member may submit a written complaint within twenty (20) Days, detailing the alleged procedural failure, to the Secretary-General. The written complaint shall be investigated and the Member will be informed of the results of the investigation, normally within twenty (20) Days of the receipt of the complaint.
 18. The Advisor shall be appointed by and shall report to the Secretary-General upon the recommendation of an advisory committee, composed of representatives of the University constituencies, including at least one (1) undergraduate and one (1) graduate student, struck for this purpose.
 19. The appointment shall be made for an initial term of two years, renewable for further terms of five (5) years. During the fourth year of each such term, the Secretary-General shall appoint an appraisal committee, composed of representatives of the University constituencies, including at least one (1) undergraduate and one (1) graduate student, which shall:
 - a) review the operations of the Office;
 - b) make recommendations with respect to the Office;
 - c) make a recommendation with respect to the renewal of the Advisor.This review shall include, but shall not be limited to, consultations with the University community as well as an external appraisal.
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Section III: Definitions

20. For the purposes of the Code:

"Advisor" means the Director of the Office or designate.

"Authority" means the individual to whom a complaint must be submitted under the terms of a Respondent's collective or employee agreement or relevant University policy.

"Complainant" means:

- a Member who is directly affected by the conduct of another Member and who files a complaint against that other Member under this Code.
- the University when, through its Disciplinary Officers, except for the Secretary-General, or a person designated by a Disciplinary Officer, it files a complaint under this Code against a Member in relation to conduct against another Member or non-Member.

"Days" means, subject to article 163, all working days, which excludes weekends, holidays and other days during which the University is closed.

"Disciplinary Officer" means any of the following individuals, who shall have the powers, duties and obligations conferred upon them in the present Code as well as any powers reasonably incident thereto:

- a) the President and Vice-Chancellor;
- b) the Vice-Presidents;
- c) the Deputy Provost;
- d) the Secretary-General.

"Expulsion" or "to Expel" means the termination of all of the Member's rights and privileges as a Student at the University, including the right to enter and be on University property. Expulsion shall be recorded on the Member's transcript as follows: "Required to withdraw; may request to be considered for readmission after five (5) years from the date of expulsion pursuant to the Code of Rights and Responsibilities." The Student may submit a written request to the Provost and Vice-President, Academic to be considered for readmission after a period of five (5) years from the date of the expulsion.

"Hearing Panel" means a hearing panel composed pursuant to this Code further to a formal complaint against a Student.

"Investigator" refers to a person, external to the University, chosen to conduct an investigation into a complaint of harassment made against a non-Student Member, in accordance with article 137 of the Code.

"Member" means faculty members, employees, administrative and support staff, postdoctoral fellows, members of the administration, Students and interns, stagiaires or researchers.

"Office" means the Office of Rights and Responsibilities.

"Respondent" means any Member against whom a complaint under the Code is made.

"Secretary" means the Secretary of the Hearing and Appeal Panels, who shall form part of the Office of Student Tribunals, and who shall be designated by the Secretary-General.

"Student" means:

- any person registered in any academic program on a full-time or part-time basis
- any person admitted as an independent student
- any person registered in a non-credit course
- any person registered as an auditor in a credit or non-credit course
- any person registered as a student at another university who has written approval from their home university to take courses at the University, including exchange students and visiting students.

A person ceases to be a Student:

- upon graduation; or
- three (3) consecutive semesters after they were last registered in at least one (1) for-credit or non-credit course; or
- at the end of the semester during which such person is declared in failed standing and is no longer entitled to register in any course at the University.

"Suspension" or "to Suspend" means the withdrawal of such University privileges of a Student as are specified by the Provost and Vice-President Academic or delegate or the Hearing Panel. If no particular privileges are specified, "Suspension" shall entail the withdrawal of all University privileges, including the right to write examinations and the right to enter and be upon University premises, in which case the Student may only come upon University premises for a specified purpose, previously authorized in writing by a Disciplinary Officer. Suspension shall be recorded on the academic transcript as follows: "Required to withdraw. May not resume studies until (date)." At the date for resumption of studies, the notation shall be removed from the transcript but shall continue to be maintained in the confidential files of the Dean of Students and of the Registrar's Office. The maximum length of a Suspension shall be two (2) years, after which the Student may resume their studies at the next possible term, providing that all imposed conditions (if any) have been fulfilled.

"University" means the registered not-for-profit corporation named Concordia University, located in Montreal, Quebec, Canada.

Ambiguities

21. Wherever there is doubt or ambiguity regarding any provision of the Code or the procedure to be followed, that interpretation or procedure which appears to be most equitable and consistent with the general purposes and philosophy of the Code shall be adopted. Except for those terms specifically defined in this Code, the terms used shall have their usual meanings.

Section IV: Jurisdiction

22. An alleged violation set forth in a Complainant's complaint must have taken place:

- a. on University premises, either rented or owned,
- b. on other premises in the course of any University-sponsored activity or event, or
- c. in the context where activities or events have a real and substantive link to the University.

In the present article 22, by way of example only, "real and substantive link to the University" does not include allegations related to matters arising from or solely pertaining to student associations or fee-levy groups.

Complaints against Former Students

23. In the case of claims under this Code involving a Student's conduct, the Respondent need only have been a Student at the time of the alleged violation of the Code. Subject to article 24, if any proceedings under the Code cannot be initiated or completed because a Student Respondent has graduated or ceases to be a Student in accordance with the definition contained in Section III of the Code, the proceedings shall continue if the Respondent registers again or, in the case of a Respondent who has graduated, if the alleged offence, if proven, would impugn the validity of the degree conferred.
24. In the case of claims under this Code made by a Student Complainant against a Student Respondent, the Complainant need only have been a Student at the time of the alleged violation of the Code. Subject to article 23, if any proceedings under the Code cannot be initiated or completed because a Student Complainant has graduated or ceases to be a Student in accordance with the definition contained in Section III of the Code, the proceedings shall resume if the Complainant registers again.
25. Subject to article 96, if a complaint has been upheld by a Hearing Panel against a Student who later graduates or ceases to be a Student in accordance with the definition contained in Section III of the Code, prior to the fulfillment of the sanction imposed, a notation shall be made on their academic record only indicating the sanction under the Code and that they cannot pursue further studies at the University until such time as the sanction imposed has been fulfilled, or until they have made suitable arrangements with the Dean of Students to fulfill the sanction.

Contractors, their Employees, Alumni and Visitors

26. Contractors, their employees and representatives, and visitors to the University as well as any other persons associated with the University or on University premises are expected to conduct themselves in a manner consistent with the Code. Violations of the Code by such persons may be dealt with, where applicable, as potential breaches of contract and, in addition, the appropriate Vice-President or delegate, and any other person designated by the appropriate Vice-President or delegate, may exclude each such person from any University premises and take any other steps that may be appropriate. Should such persons believe that they have been subjected to conduct on University premises in violation of the Code, they may consult the Advisor for advice.

Section V: Offences Prohibited Under the Code

27. The primary purpose of the Code is to promote and protect the values of civility, equity, respect, non-discrimination, and an appreciation of diversity as manifested within the University and to support Members who have experienced, or are experiencing, conduct that violates these fundamental values.
28. No Member who seeks the services of, files a complaint with, or cooperates in any manner with the Advisor, shall be subject to any reprisals for so doing. The procedure set out in the relevant University policy or collective or employee agreement shall be followed in cases of alleged reprisals. Members may also be charged under articles 30 to 51, as applicable, for any alleged reprisals.
29. The following articles 30 to 51 represent the core behaviours the Code wishes to address and are prohibited under this Code:
30. Threatening or Violent Conduct
"Threatening or violent conduct" means:
 - a) assaulting another Member; or
 - b) threatening another Member or group of Members with bodily harm or causing another Member or group of Members to have reasonable grounds to fear bodily harm; or
 - c) creating, or threatening to create, a condition, which unnecessarily endangers or threatens the health, safety or well-being of another Member or group of Members.
31. Sexual Violence and Sexual Assault
 - a) "Sexual violence" means any violence, physical or psychological, carried out through sexual means or by targeting sexuality. This includes, but is not limited to sexual assault, sexual harassment, stalking, indecent exposure, voyeurism, degrading sexual imagery, distribution of sexual images or video of a Member without their consent, and cyber harassment or cyber stalking of a sexual nature or related to a Member's sexual orientation, gender identity or presentation;
 - b) "Sexual assault" is any unwanted act of a sexual nature imposed by one person upon another and includes such activities as kissing, fondling, oral or anal sex, intercourse, or other forms of penetration, without consent.
32. Harassment
"Harassment" means:
 - a) all forms of repeated or ongoing unwelcome, vexatious conduct directed towards a Member or a group of Members; and
 - b) which may be based upon one of the prohibited grounds specified in the Quebec Charter of Human Rights and Freedoms, that is; race, colour, ethnic or national origin, sex, gender identity, pregnancy, sexual orientation, civil status, age, religion, political convictions, language, social condition, disability or the use of a means to palliate a disability; and
 - c) when such conduct has the effect or purpose of unreasonably interfering with a Member's right to pursue their work, study or other activities related to University life in a safe and civil manner or of creating an intimidating or hostile environment for such activities.A single serious incidence of such behaviour may constitute harassment if it has the same consequences and if it produces a lasting harmful effect on the Member.
33. Sexual Harassment
"Sexual harassment" means a form of harassment which involves conduct, behaviour or communications of a sexual nature such as, but not limited to, verbal abuse or threats of a sexual nature, unwelcome sexual invitations or requests, demands

for sexual favours or unwelcome and repeated innuendoes or taunting about a Member's body, appearance, gender, gender identity, sexual orientation or sex life, when:

- a) submission to such conduct is made, whether explicitly or implicitly, a term or condition of the Member's employment, educational progress or involvement in the University community; or
- b) submission to or rejection of such conduct is used as the basis for an employment or academic decision affecting that Member; or
- c) such conduct has the effect or purpose of unreasonably interfering with a Member's right to pursue their work, study or other activities related to University life in a safe and civil manner or of creating an intimidating or hostile environment for such activities.

A single serious incidence of such behaviour may constitute harassment if it has the same consequences and if it produces a lasting harmful effect on the Member.

34. Psychological Harassment

"Psychological harassment" is a specific type of harassment formally recognized in the law and means vexatious behaviour in the form of repeated conduct, written or verbal comments, actions or gestures against a Member which:

- a) are hostile or unwanted; and
- b) affect the Member's dignity or psychological or physical integrity; and
- c) have the effect or purpose of unreasonably interfering with a Member's right to pursue his/her work, study or other activities related to University life in a safe and civil manner or of creating an intimidating or hostile environment for such activities.

A single serious incidence of such behaviour may constitute psychological harassment if it has the same consequences and if it produces a lasting harmful effect on the Member.

35. Discrimination

"Discrimination" means:

- a) treatment which has the effect or purpose of imposing burdens, barriers, obligations or disadvantages on a Member or group of Members; and
- b) for which there is no bona fide and reasonable justification; and
- c) when such treatment is based on one of the prohibited grounds specified in the Quebec Charter of Human Rights and Freedoms, that is; race, colour, ethnic or national origin, sex, gender identity or expression, pregnancy, sexual orientation, civil status, age, religion, political convictions, language, social condition, handicap/disability or the use of a means to palliate a handicap/disability.

36. Communication of Discriminatory Matter

It is an offence for a Member to engage in the distribution, communication, publication or public exhibition by any means of any matter deemed to be discriminatory or to expose a person or persons to hatred or contempt by reason of the fact that that person or those persons are identifiable on the basis of a prohibited ground of discrimination, as contemplated under the Quebec Charter of Human Rights or under the Canadian Human Rights Act, and for which there is no bona fide and reasonable justification.

37. "Offences against property" means willfully or recklessly taking or having unauthorized possession of, theft of, damaging or destroying any property belonging:

- a) to the University; or
 - b) to any Member or group of Members when such property is on University premises or on other premises during the course of a University-sponsored activity or event;
- or threatening to do any of the above;

38. Knowingly furnishing false information, knowingly making a false accusation or knowingly reporting a false emergency to any University Official or Office;

39. Maliciously activating fire alarms;

40. Bomb threats;

41. Theft or abuse of computing facilities or computer time, including but not limited to: logging into or attempting to log into a server or account without authorized access; accessing data or taking any action to obtain, copy, use, misuse, read or change data, information or services not intended for the Member or the Member's use; unauthorized transfer of a file; use of another individual's account or password; use of computing facilities to interfere with the work of another individual or computing system; attempting to probe, scan or test the vulnerability of a system or network; tampering, hacking, modifying or otherwise corrupting or breaching security or authentication measures; transmitting materials that contain malware such as viruses, Trojan horse software, keyboard loggers; or engage in conduct that could damage, disrupt or otherwise impair or interfere with the functionality or the operation of computing facilities or computer;

42. Unauthorized entry into any University property;

43. Obstruction or disruption of teaching, research, administration, study, student disciplinary procedures or other University activity. Notwithstanding the preceding, Members are free to engage in peaceful and orderly protest, demonstration, and picketing that do not disrupt the functions of the University.

For example, peaceful picketing or other activity in any public space that does not impede access nor interfere with the activities in a class or meeting is an acceptable expression of dissent and shall not be considered an infraction of this article;

44. Camping or lodging on University property other than in authorized facilities;

45. Forging or, without authority, knowingly altering, using, receiving or possessing University supplies or documents or documents supplied to the University (including without limitation, records, keys, electronic devices, letterheads, reference letters, degrees, diplomas, certificates or identifications);

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46. Hazing or any method of pre-initiation or initiation into a student organization or any pastime or amusement engaged in with respect to such an organization which causes, or is likely to cause, bodily danger, physical harm, or personal degradation or disgrace resulting in physical or mental harm;
 47. Unlawful manufacture, distribution, possession, use, threatened use, storage, sale or the attempted manufacture, distribution, or sale of controlled substances, except as expressly authorized by law or University regulations;
 48. Unlawful manufacture, distribution, possession, use, threatened use, storage, sale or the attempted manufacture, distribution, or sale of explosives, firebombs, or other destructive devices, except as expressly authorized by law or University regulations;
 49. Possession, use, threatened use, or manufacture of firearms, ammunition, dangerous chemicals, dangerous biological materials, explosives, other weapons or other materials deemed dangerous pursuant to applicable law, except as expressly authorized by law or University regulations;
 50. Unauthorized use or duplication of the University's name, trademarks, logos or seals; and
 51. Any other action that is not specifically described in this Section but which is an offence described in any federal, provincial or municipal law or regulation, which occurs in the University context.
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Section VI: Consultation with the Advisor

52. The Advisor shall be impartial in the exercise of functions and shall respect the confidentiality of all parties.
 53. Members who believe that they have been subjected to conduct that violates the Code may consult the Advisor. The primary goal of the consultation is to assist the Complainant in making an informed choice as to the most appropriate method of resolution, including informal resolution.
 54. Normally, a complaint should be filed with the Advisor within three (3) months of the alleged violation. If the complaint is under article 34, the complaint should be filed with the Advisor within 90 calendar days from the last incident. This period may be extended at the discretion of the Advisor when, in the Advisor's opinion, there are serious and compelling reasons to grant the extension. Cases or consultations with no contact or notifications from any party involved in a complaint for three (3) months will be considered withdrawn and the file closed. If after three (3) months there is additional follow up or new information on the same issue, or if there are extenuating circumstances, the file may be reopened. If the Respondent is a member of a union or employee association, the Advisor shall inform the Complainant of any delays regarding disciplinary procedures which may be prescribed in the Respondent's collective or employee agreement.
 55. The Advisor may, upon written notice to the Complainant, refuse to assist in informal resolution or to proceed with a formal complaint, on one or more of the following grounds:
 - a) it is not within the jurisdiction of the Code in accordance with article 22, in which case the Advisor shall, if appropriate, re-direct the Complainant to the relevant channels for redress, or it is not within the allowed time delays in accordance with article 54; or
 - b) it is trivial, frivolous, vexatious or made in bad faith; or
 - c) it is being dealt with, or has already been dealt with, by another University officer, policy or procedure; or
 - d) it does not appear to be supported by sufficient evidence.
 56. In the case of a complaint against a Student, if the Advisor has refused to proceed with a formal complaint, the Complainant may appeal such a refusal within ten (10) Days of receipt of the Advisor's notice, by submitting a request in writing to the Secretary of the Hearing Panel who will provide a copy of the request to the Advisor. A Hearing Panel shall be convened as soon as possible after receipt of the notification and normally within ten (10) Days. Once a hearing date is fixed by the Secretary, the Complainant and the Advisor shall each deliver written submissions to the Secretary at least two (2) Days prior to the date fixed for the hearing. The Hearing Panel shall render its reasoned decision based on such written submissions. The Secretary shall advise the Complainant and the Advisor of the names of the panellists no later than five (5) Days before the hearing. The provisions of Section VII shall apply, except that a reasoned objection to the participation of a panellist on the grounds of potential bias shall be filed no later than three (3) Days before the hearing. The decision of the Hearing Panel is final.
 57. If the Advisor does not make a determination under article 55, the Complainant shall decide upon one of the following courses of action:
 - a) to proceed with informal conflict resolution; or
 - b) to proceed with a formal process under Section VII or Section VIII; or
 - c) to take no further action; or
 - d) to pursue any other course of action available at law, under a collective or employee agreement or under any other University policies or procedures.
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Section VII: Procedures for Informal Resolution

58. If the Complainant opts to proceed with informal conflict resolution, the Complainant may authorize the Advisor to take steps to attempt an informal resolution. Such steps may take a variety of forms, for example, helping to clarify perceptions (e.g., shuttle diplomacy), raising awareness of the impact of certain conduct (e.g., impact statements), reconciling differences (e.g., apology letters) or sorting out misunderstandings. The parties may be brought together or communication may be effected through the Advisor.
59. Where the situation lends itself to structured mediation and both parties agree, the Advisor may personally act as mediator, or may assist the parties in obtaining the services of another Member who is qualified to perform this function.
60. Any informal resolution agreement reached between the parties through informal conflict resolution is entirely voluntary. Conditions agreed upon by the parties are binding.

61. The Complainant may withdraw the complaint at any point during the process of informal resolution. As well, the Advisor may withdraw from the informal process if it is determined by the Advisor that no useful purpose will be achieved by continuing.
62. Normally, attempts at informal resolution shall not last longer than three (3) months.

Referral to the Dean of Students

63. Where a concern has been raised about a Student's or a group of Students' conduct, and, in the opinion of the Advisor, it cannot be adequately addressed using the range of informal options described in article 58 or the formal option described in article 67 or should it not be in the jurisdiction of this Code, the Advisor may, with the agreement of the complaining party, refer the matter to the Dean of Students for disposition.
64. The Advisor shall forward the details of the matter, in writing, to the Dean of Students, who shall meet with the relevant parties, should they so wish.
The Dean of Students may seek a response to the concern, which is instructive for the parties and which is intended to help prevent further problems of behaviour.
65. The Dean of Students will maintain a file on the matter and will provide a written summary of the outcome to the parties, with a copy to the Advisor.
66. Nothing in this Code shall limit the roles and responsibilities of the Dean of Students set out in any other University policy.

Section VIII: Procedures for Adjudicating Formal Complaints Against Students

Initiating a Formal Complaint

67. A Complainant may opt to proceed directly to a formal complaint at the outset or after an attempt at informal conflict resolution has been unsuccessful. No statements, documents or information brought forward in the course of an attempt at informal conflict resolution may be used or referred to by either the Complainant or the Respondent should a formal complaint be initiated and no reference may be made, including before a Hearing Panel, to the fact that informal conflict resolution was attempted. Nothing herein shall prevent any disclosures required by law.
68. Prior to a hearing by a Hearing Panel, a settlement may be agreed to by the parties at any time. The process is entirely voluntary but once a settlement is reached, it is binding. The Advisor shall monitor the terms of the settlement and if either party defaults on the settlement, the Advisor shall inform the other party, who may then decide to initiate or resume the formal procedure. No settlement may be imposed by either party without the full agreement of the other.
Any informal resolution agreement (e.g., settlement) which is agreed upon by the parties shall be signed and dated by the parties and, should any condition set forth in that agreement be breached, the settlement agreement may be submitted into evidence before a Hearing Panel by either party but shall be considered to be solely relevant as to the decision with respect to sanction.
69. In an egregious case, in which the safety or well-being of a Member, or of a group of Members, or of the University as a whole, is deemed to be at risk, the Advisor may take temporary measures with respect to the Complainant's safety and security such as, for example, a non-contact order, as deemed necessary.
70. The Complainant may withdraw their own complaint at any time.
71. The Advisor shall provide the Complainant with a copy of this Code and shall inform the Complainant of the following:
 - a) the required format for submitting the complaint, which must be made in writing, signed and dated and must identify the Complainant and the Respondent and the precise nature of the complaint, including the relevant provision(s) of the Code;
 - b) information with respect to procedures which shall be followed by a Hearing Panel;
 - c) the right of the Complainant and the Respondent to consult any person in the preparation of their case, and to be accompanied or represented before a Hearing Panel by any Member. If the Complainant is a Student, they also have the option of obtaining a student advocate through the services of the Office of Student Advocacy or a student advocacy service offered by a student association; and
 - d) the right of appeal.
72. Upon receipt of the written complaint, the Advisor shall notify the Respondent. The Respondent shall be provided with a copy of the Code, a copy of the complaint together with the information detailed in article 71 b), c) and d).
73. Concurrent with the notification sent to the Respondent, the Advisor shall notify the Secretary who shall convene a Hearing Panel to hear the matter. Thereafter, until the final decision of the Hearing Panel is rendered, the Secretary shall be responsible for all communications with the Complainant and the Respondent.
74. The Office of Student Tribunals shall be responsible for the administrative functioning of the Hearing Panels in cases against Students and shall maintain the confidential files and recordings of proceedings of the Hearing and Appeal Panels.
75. Where a formal complaint is made by a Student against another Student, the Secretary shall select a Hearing Panel composed of three (3) graduate or undergraduate students drawn from the Student Tribunal Pool and one (1) non-voting chair who have been appointed pursuant to the *Policy on the Establishment of Tribunal Hearing Panels* (BD-6).
76. In all other cases, the Secretary shall select a Hearing Panel composed of the following individuals, all of whom have been appointed pursuant to the *Policy on the Establishment of Tribunal Hearing Panels* (BD-6):
 - a) one (1) non-voting chair; and
 - b) two (2) undergraduate or graduate students drawn from the Student Tribunal Pool;
 - c) one (1) faculty member drawn from the Faculty Tribunal Pool if the Complainant is a faculty member; or one (1) member of the administrative or support staff drawn from the Administrative and Support Staff Tribunal Pool if the Complainant is a member of the administrative or support staff. If the Complainant is the University (as per the definition of Complainant set forth at Section III of the Code), a member of the senior administration or the Security Department, the member shall be drawn from the Faculty Tribunal Pool.

77. Following receipt of the notification by the Secretary, if the Secretary determines that complaint(s) made by multiple Complainants are substantively identical or pertain to the same incident, the Secretary may join such complaints together so that they are heard by one (1) Hearing Panel. Any Complainant may object to the joining of their complaint, in which case their own complaint(s) will be handled separately.
78. Following receipt of the notification by the Secretary, if the Secretary determines that complaint(s) made against multiple Respondents are substantively identical or pertain to the same incident, the Secretary may join such complaints together so that they are heard by one (1) Hearing Panel. Any Respondent may object to the joining of the complaint(s) against them to the complaint(s) against other Respondents, in which case the complaint(s) against that Respondent will be handled separately.
79. A Hearing Panel shall be convened as soon as possible after receipt of the notification by the Secretary. The Secretary shall inform the parties of the academic term during which it is expected that the Hearing Panel will be held, within fifteen (15) Days of the Secretary's receipt of the notification.
80. Once a hearing date is fixed by the Secretary, the Complainant shall submit all documentation for the Hearing Panel's consideration to the Secretary no later than twenty (20) Days before the scheduled hearing date. Such documentation shall include any supporting documents and a list of the witnesses that will appear on behalf of the Complainant, if any, and written statements, if any, made by witnesses regarding the complaint.
81. The Secretary shall forward such documentation along with a list of panellists selected for the case to the Respondent no later than fifteen (15) Days before the scheduled hearing. The list of panellists shall also be sent to the Respondent.
82. The Respondent shall submit all documentation for the Hearing Panel's consideration to the Secretary no later than ten (10) Days before the scheduled hearing date. Such documentation shall include any supporting documents and a list of the witnesses that will appear on behalf of the Respondent, if any, and written statements, if any, made by witnesses regarding the complaint.
83. Any documentation or any names of witnesses submitted after the above deadlines may be accepted by the Hearing Panel, at the discretion of the Chair of the Hearing Panel, further to representations made by the parties. In making the decision as to whether to accept additional documentation or witnesses after the deadline, along with other considerations, the Chair of the Hearing Panel may take into account when the documentation or name(s) of the witness(es) was submitted, the reasons for the late submission, and any prejudice that any party may suffer due to such late submission, or any other relevant motives.
84. The Secretary shall transmit the documentation submitted by the parties, the present Code and the Procedures of the Hearing Panel, to the parties and to the Hearing Panel no later than five (5) Days before the scheduled hearing date. The Hearing Panel may limit the number of witnesses called by both parties taking into account their relevancy.
85. Any party may object to the participation of a panellist on the grounds of potential bias. A reasoned objection shall be filed with the Secretary, in writing no later than five (5) Days prior to the hearing date. The Secretary shall arrange for an alternate panellist to serve if the Secretary determines that the objection is well founded. If the matter cannot be resolved, the issue shall be forwarded to the Chair of the Hearing Panel who shall render a final decision in this regard.

The Hearing

86. The procedures established by the Hearing Panel shall include, at a minimum, opening statements by the parties, the presentation of evidence and witnesses (expert or otherwise), the right of cross examination, questioning by members of the Hearing Panel, representations with respect to desired sanctions and closing statements. Hearings shall be recorded, and the recording kept as part of the permanent record of proceedings for a period of not less than five (5) years. Recordings shall be provided to a party to a Hearing Panel upon request to the Secretary.
87. The role of the Chair shall be to preside over the proceedings, keep order and ensure fairness. The Chair shall preside over the deliberations of the Hearing Panel but shall not vote. Decisions shall be made by majority vote. The deliberations of the Hearing Panel shall only be attended by the Chair, the Secretary and the panellists. If the Hearing Panel decides to uphold the complaint it shall subsequently impose one or more of the sanctions that appear at article 91.
88. The hearing shall be closed and confidential unless both parties have consented in writing to the attendance of other people.
89. If the Respondent fails, without reasonable excuse, to attend the hearing, the hearing may proceed in the Respondent's absence or, at the Chair's discretion, the start of the hearing may be postponed. If the hearing proceeds in the Respondent's absence, all rights contingent on the Respondent's presence, with the exception of the right to have an advocate present, are forfeited. In such a case, a Respondent's right of appeal is limited to a consideration of the reasonableness of the Respondent's excuse for not appearing. If an Appeals Panel finds that the excuse is reasonable, it shall order a new hearing by a new Hearing Panel with the Respondent present. The decision of the new hearing is appealable as if it were a first hearing.
90. The Hearing Panel shall provide a signed, dated and reasoned decision. The standard of proof to be relied upon by the Hearing Panel shall be one of a "preponderance of evidence." A "preponderance of evidence" standard means that the Complainant must establish that their version of the facts is significantly more probable than the alternatives. This standard is less rigorous than the standard of "beyond a reasonable doubt" required under criminal law.

Sanctions

91. If a complaint is upheld against a Student by the Hearing Panel, the Hearing Panel must impose one (1) or more of the following sanctions:
 - a) a written reprimand;
 - b) placing restricted access conditions (e.g., restricted access, non-contact/communication, space and time restrictions) on the Respondent while they are on University premises or at University events, the whole subject to the confirmation or modification by the appropriate unit at the University;

- c) payment as compensation to the Complainant for damage or loss of property or to otherwise rectify a situation which the Respondent created or helped to create;
 - d) relevant specified community service at the University or elsewhere of up to ten (10) hours per week for a specified period of time, which can be modified at the Dean of Student's sole discretion, not exceeding a total number of sixty (60) hours;
 - e) a fine not exceeding \$500 payable to student awards at the University when the Hearing Panel deems that other sanctions are not appropriate or practical;
 - f) a recommendation of Suspension, subject to confirmation by the Provost and Vice-President, Academic;
 - g) a recommendation of Expulsion, subject to confirmation by the Provost and Vice-President, Academic.
92. All monetary sanctions shall be payable within twenty (20) Days of the date of transmission of the Hearing Panel's decision or, in cases where a decision is appealed, within twenty (20) Days of the transmission of the final appeal decision. The execution of any sanction imposed by the Hearing Panel, with the exception of a sanction under article 91 b), shall be suspended by an appeal.
93. The decision of the Hearing Panel shall normally be rendered within ten (10) Days of the hearing and shall be communicated in writing to all parties and the Advisor and to the Dean of Students when they are responsible for the administration and monitoring of the sanctions pursuant to article 95, and, when relevant, to the Registrar.
94. Furthermore, the decision of the Hearing Panel shall inform the parties of their right to submit a written request for authorization to appeal the decision within fifteen (15) Days of the date of transmission of the Hearing Panel decision, as permitted pursuant to article 97.
95. The administration and monitoring of the sanction(s) imposed shall be the responsibility of the Dean of Students. Failure to pay any monetary sanction imposed within the delay prescribed in article 92 shall result in the amount being added to the Respondent's student account. Should the Respondent fail to comply with any non-monetary sanction, the Dean of Students shall, in writing, convene the Respondent to an interview and inform the Respondent of their right to be accompanied by a student advocate from the Student Advocacy Office or from a student advocacy service offered by a student association or any other Member. During the interview, the Respondent shall have the opportunity to review the evidence related to the alleged violation of the sanction(s) and to provide the Dean of Students with an explanation.
96. Following the interview, or, should the Student fail to attend the scheduled interview without a reasonable excuse, following the scheduled interview, the Dean of Students in consultation with the Office of Rights and Responsibilities and any other relevant units may require that the Respondent:
- a) not be permitted to re-register until such time as they have fully complied with the sanction(s) imposed;
 - b) subject to confirmation by the Provost and Vice-President, Academic, be Suspended, or given an additional Suspension if the original sanction was a Suspension;
 - c) subject to confirmation by the Provost and Vice-President, Academic, be Expelled if the Respondent has failed to respect the sanction imposed more than twice;
 - d) have a diploma or transcript withheld until such time as the Respondent has fully complied with the sanction(s) imposed.

Appeals

97. A party who wishes to appeal a decision or sanction of the Hearing Panel, or both, shall apply in writing to the Secretary for the authorization to lodge an appeal. Such request for authorization to appeal shall be submitted to the Secretary no later than fifteen (15) Days after the date of transmission to the parties of the decision of the Hearing Panel.
98. Any request for authorization to appeal may be based only on the following grounds:
- a) the discovery of new evidence following the Hearing Panel;
 - b) the presence of serious and prejudicial procedural defects of the Hearing Panel; or
 - c) the decision of the Hearing Panel is patently unreasonable.
99. The request for authorization to appeal shall state in clear and precise terms the grounds on which the appeal is based. Furthermore, if the party submitting an appeal (the "Appellant") is requesting an appeal based on the grounds of discovery of new evidence, the Appellant must provide such evidence as part of their request. Upon receipt of the request for authorization to appeal, the Secretary shall provide the other party with a copy.
100. The execution of any sanctions by a Hearing Panel, except for sanctions further to the temporary exclusion of a Student pursuant to article 148 or the Suspension or exclusion of a Student pursuant to article 154, or a sanction pursuant to article 91 b), shall be Suspended until the expiry of the fifteen (15) Day delay to request authorization to appeal or until the final rendering of the decision with respect to the appeal.
101. If neither party has requested authorization to appeal within the fifteen (15) Day delay stipulated at article 97, the Secretary shall so inform the Advisor and the Dean of Students, when they are responsible for the administration and monitoring of the sanctions pursuant to article 95, and, when relevant the Registrar, including a statement to the effect that all the parties were notified in writing of the decision of the Hearing Panel and of their right to submit a request for authorization to appeal such decision. Such report shall form a part of the student's permanent file maintained by the Secretary. This notification shall be sent to the parties.
102. If an Appellant has requested authorization to appeal the decision of the Hearing Panel, the Secretary shall forward such request to the other party(ies), with a copy to the Advisor and, if appropriate, to the Dean of Students and the Registrar, soliciting the non-appealing party's (the "Respondent on Appeal") written response within ten (10) Days. Any response received by the Secretary within the ten (10) Day period shall be forwarded to the Appellant and, if the Appellant wishes, they may submit a written rebuttal within a further ten (10) Days.
103. An Appeals Authorization Panel shall be convened by the Secretary as soon as possible after the expiry of the delay to submit written input.

104. The Secretary shall select an Appeals Authorization Panel composed of the following individuals, all of whom have been appointed pursuant to the *Policy on the Establishment of Tribunal Hearing Panels* (BD-6):
 - a) one (1) non-voting chair;
 - b) two (2) graduate or undergraduate students drawn from Student Tribunal Pool;
 - c) one (1) faculty member drawn from the Faculty Tribunal Pool.
105. In no case shall a member of the Appeals Panel also have been a member of the Hearing Panel which conducted the original hearing.
106. The Appeals Authorization Panel shall decide whether an appeal shall be heard, having regard to the allowable grounds of appeal and the circumstances of each case.
107. The Appeals Authorization Panel shall be provided with all written evidence provided to the Hearing Panel, the decision of the Hearing Panel, the recording of the Hearing Panel, the request for authorization to appeal, and all written input received within the thirty (30) Day period set forth at article 102. The decision of the Appeals Authorization Panel shall be based solely upon the documents and recording listed in the present article. Neither party is permitted to attend or make oral representations before the Appeals Authorization Panel.
108. The Appeals Authorization Panel shall have the authority to grant or deny authorization to appeal based only on the grounds for appeal set forth in the present Code. If it grants authorization to appeal based on the grounds of discovery of new evidence following the rendering of the decision of the Hearing Panel, the patent lack of reasonableness of the decision of the Hearing Panel or the reasonableness of the student's excuse for not appearing before the Hearing Panel pursuant to article 89, the Appeals Authorization Panel may order a new hearing of the case by a new Hearing Panel or may forward the file to an Appeals Panel. If it grants authorization to appeal based on the grounds of presence of serious and prejudicial procedural defects of the Hearing Panel, it shall forward the file before an Appeals Panel.
109. The Appeals Panel shall normally render its decision with respect to the request for authorization, within ten (10) Days of its consideration of the request.
110. The Appeals Panel shall render its decision with respect to the request for authorization in writing, with brief reasons supporting its decision. Notification of such decision to authorize the appeal shall be sent to both parties and the Advisor and, if relevant, to the Dean of Students and the Registrar.
111. If the authorization to appeal is granted, it shall normally be heard by an Appeals Panel within twenty (20) Days of the decision to authorize the appeal. Notification of the scheduling of the Appeals Panel shall be sent to both parties and the Advisor.
112. If a file is forwarded to an Appeals Panel, a panel of three (3) Members, as well as a non-voting Chair, shall be composed by the Secretary. The Appeals Panel shall be composed of two (2) faculty members drawn from the Faculty Tribunal Pool and one (1) student drawn from the Student Tribunal Pool.
113. If either party fails to attend the Appeals Panel, the hearing may proceed in the other party's absence or, at the Chair's discretion the start of the hearing may be delayed.
114. During the hearing of the appeal, any procedures established by the Appeals Panel shall include, at a minimum, the opportunity for the Appellant and the Respondent on Appeal to make oral representations and all representations before the Appeals Panel shall be limited to representations as to the grounds further to which authorization to appeal was granted by the Appeals Authorization Panel.
115. The Appeals Panel has the authority to confirm, reverse or modify the decision being appealed. Furthermore, should the appeal be based on the production of new evidence or patent unreasonableness of the Hearing Panel decision, the Appeals Panel may order a new hearing of the complaint by a new Hearing Panel.
116. The Appeals Panel shall normally render its decision within ten (10) Days of the hearing. The decision of the Appeals Panel shall be signed, dated and reasoned and shall be sent to the parties and the Advisor and, if relevant, to the Dean of Students and the Registrar.
117. The decision of the Appeals Authorization Panel denying an appeal shall be final or, if an appeal is authorized, the decision of the Appeals Panel shall be final.
118. In extraordinary circumstances where it is determined that a Hearing Panel or Appeals Panel has acted outside of its jurisdiction as provided for in the Code, the Secretary-General may set aside a Hearing Panel or Appeals Panel decision and order that a new Hearing Panel or Appeals Panel, as the case may be, re-hear the matter.

Files of Formal Complaints against Students

119. The Advisor shall maintain a file of all formal complaints processed. The file shall include the written complaint, the decision of the Hearing Panel and the decision of the Appeals Panel, if any. If a settlement is reached prior to a hearing, the general substance of the settlement shall be included in the file. If the complaint is withdrawn at any stage of the formal process, a notation to that effect shall be recorded.

Section IX: Procedures for Responding to Formal Complaints Made Against Faculty, Administrative or Support Staff Members or Members of the Administration

General Rules

120. The application of the present Section to a Respondent who is unionized or a member of an employee association or other employee group is subject to the provisions of their collective or employee agreement and to the provisions of articles 9, 10 and 11 of the Code.
121. In all cases governed by the present Section, the Advisor shall invite the Complainant to consider an informal resolution and shall advise the Complainant of their right to consult their respective union or association or the Department of Human Resources.

122. The Advisor shall terminate any attempt at informal resolution or formal resolution should a Complainant initiate a process such as, but not limited to, a grievance or other formal internal procedure, or any external procedure such as a complaint or action before a commission, board or tribunal. Any attempt at informal resolution or formal resolution shall be suspended when the University is made aware of the institution of criminal proceedings, and such until the conclusion of the criminal proceedings.
123. The absence or non-availability of the Complainant is a factor in the decision of the Advisor and/or the University official empowered to continue any procedures set out in the Code but is not decisive.

Informal resolution

124. A Member who has a concern regarding the behaviour of a faculty, administrative or support staff member, or a member of the administration is strongly encouraged to consult the Advisor and seek a remedy through one or more of the informal dispute resolution procedures described in articles Section VII of the Code.
125. In order to facilitate the informal resolution of the complaint, a Member who belongs to a collective or employee association may agree to suspend any applicable delays provided that all parties (the Member, the University, the union and/or the association) have so agreed in writing.
126. A Member who chooses not to advise their union or employee association of the matter should consult the Advisor concerning the possible consequences of such a decision.
127. Consulting the Advisor and/or attempts at informal resolution facilitated by the Advisor does not constitute a formal University proceeding. Until a formal process is undertaken, no notification shall be deemed to have been made to the University of any complaint or procedure involving a Member.

Initiating a Formal Complaint against a Faculty, Administrative or Support Staff Member or against a Member of the Administration

128. To the extent permitted by the Respondent's collective or employee agreement and relevant University policies and with the agreement of the Respondent's union or employee association on a case by case basis, the following procedure shall be considered the formal investigation under the Respondent's collective or employee agreement.
129. A Member who wishes to file a formal complaint against faculty, administrative or support staff members or against members of the administration shall contact the Advisor.
130. The Advisor shall provide the Complainant with a copy of the Code and shall inform the Complainant of the following:
 - a) the required format for submitting the complaint, which must be made in writing, signed and dated and must identify the Complainant and the Respondent and the precise nature of the Complaint, including the provision(s) of the Code under which the complaint is being filed;
 - b) the right of the Complainant to consult any person in the preparation of their complaint, and to be accompanied or represented by any Member during the process of resolution. If the Complainant is a Student, they may opt to be accompanied by a student advocate from Advocacy and Support Services or a student advocacy service offered by a student association. If the Complainant is a member of a union or an employee association, they may opt to be accompanied by a union or association representative.
131. If the Respondent is a member of a union or association, the Advisor shall inform the Complainant of any delays regarding the imposition of a disciplinary measure which may be set out in the Respondent's collective or employee agreement. The Advisor shall, in particular, advise the Complainant of the delay of ninety (90) calendar days since the last incident in matters of psychological harassment complaints, as set out in the Quebec Labour Standards Act.
132. Upon receiving a formal complaint, the Advisor shall transmit the complaint and the relevant University policy, along with all the relevant information and documentation to the Authority to whom the complaint must be submitted under the terms of the Respondent's collective or employee agreement, with a copy to the Respondent's union or association. The Advisor shall notify the Department of Human Resources in writing of the existence of the complaint and of who has been named as the Authority. If there is no applicable union or association, the Advisor shall notify the Respondent directly.
133. In an egregious case, in which the safety or well-being of a Member, or of a group of Members, or of the University as a whole, is deemed to be at risk, the Authority may take such temporary measures permitted under the collective or employee agreement, relevant University policy and the law, as deemed necessary.

Powers and Duties of the Authority

134. The Authority shall inform the Respondent of their right to consult any person in the preparation of their case, and to be accompanied or represented by any Member during the process of resolution. If the Respondent is a member of a union or an employee association, they may be accompanied by a union or association representative.
135. The Authority shall then take the necessary steps to resolve the matter in such a manner as to respect the principles of natural justice and the procedures of any collective or employee agreement or University policy, which may apply.
136. More specifically, the Authority may:
 - a) meet with the Complainant and the Respondent on an individual basis;
 - b) subject to article 162, have access to all official files and information as are required, the whole subject to the applicable legislation;
 - c) meet any individual who might, in their opinion, provide information relevant to the complaint;
 - d) consult any University officer (representatives of the Department of Human Resources, University Secretariat, etc.) or outside counsellors as may be required;
 - e) refer the matter to be investigated internally or externally.

Harassment Complaints

137. The formal investigation of a complaint of harassment, including psychological harassment, may be submitted, with the agreement of the parties (including the Respondent's union or association), to an internal assessor as or if provided for in the relevant collective or employee agreements, University policies or an Investigator agreed to by the University and the unions and/or employee association.
138. All information, whether in writing or in any other form, obtained by the Authority and/or the Investigator in the performance of the Authority's duties in relation to any complaint and harassment shall be strictly confidential except as provided for by law.
139. In cases where an Investigator is used, the mandate must be completed within a reasonable delay and in all cases within forty (40) Days from the appointment of the Investigator, unless the parties have agreed otherwise in writing. Upon the completion of the investigation, the Investigator shall send the written report to the Authority and to the Advisor. A summary of the report, prepared by the Investigator without any mention of nominative information shall be provided to the Respondent and the union or association, in accordance with the relevant collective or employee agreement.
140. Upon the completion of the investigation, the Authority may dismiss the complaint, impose or recommend the imposition of a disciplinary measure or take any other action permitted by the relevant collective or employee agreement or University policy.
141. When the matter has been decided by the Authority, the Authority shall notify the Complainant and the Advisor, in a timely fashion, of the general substance of the decision and any action that was taken as a result of the complaint.
142. When the decision or remedial action taken by the Authority is not a disciplinary action as defined by the relevant collective or employee agreement or University Policy, as the case may be, the Authority or the Associate Vice-President, Human Resources, as appropriate, shall monitor compliance. Once satisfied that compliance has been effected, the Authority shall so inform the Complainant and the Advisor.
143. If disciplinary action is taken and subsequently overturned by a higher authority or by the grievance and arbitration procedures, the Complainant and Advisor shall be notified.

Files of Formal Complaints against Faculty, Administrative and Support Staff Members or Members of the Administration

144. The Advisor shall maintain a file of formal complaints received against faculty, administrative or support staff members or members of the administration which shall summarize the substance of the consultation with the Complainant, the record of resolution as supplied by the Authority and information that a sanction has been overturned through grievance or arbitration, if applicable.

Section X: Urgent Situations

Reporting and Responding to Urgent Situations

145. Members who are faced with an urgent situation involving threatening or violent conduct, where there is reasonable cause to believe that the safety or security of persons may be threatened, shall immediately contact the Security Department. The Security Department shall take whatever reasonable action is necessary to secure the safety of persons, and shall immediately alert the Advisor. In such a case, the Advisor shall be guided by the *Protocol on the Coordination of Urgent Cases of Threatening or Violent Conduct* ("the Protocol"). The *Policy on Student Involuntary Leave of Absence* (PRVPAA-15) and/or other University policies may apply.
146. Members shall immediately report to the Advisor any conduct which they have reasonable cause to believe potentially threatens the safety or security of persons. The Advisor shall assess the situation as specified in the Protocol, the *Policy on Student Involuntary Leave of Absence* (PRVPAA-15) and/or consult experts as necessary, and make recommendations as to any further action appropriate in the circumstances.
147. Any Member who is called to a team meeting under the Protocol or any other relevant policy shall respond promptly.

Temporary Exclusion of a Student by a Disciplinary Officer

148. A Disciplinary Officer may require any Student to immediately leave and remain away from the University premises or a part thereof, for a period not exceeding five (5) Days, which may be renewed up to two (2) times, if based on personal knowledge and/or reliable information, the Disciplinary Officer has reasonable grounds to believe that the Student's continued presence at the University:
 - a) is detrimental to any Member's pursuit of work, studies and other activities related to University life in a safe and civil environment; or
 - b) constitutes an immediate threat to the safety or security of others.
149. In a situation referred to in article 148, when a Disciplinary Officer is not available, the Advisor may require a Student to immediately leave and remain away from the University premises or a part thereof for a period not exceeding twenty-four (24) hours.
150. No Student shall be barred from taking any examination or submitting any academic assignment as a result of this Section but the Disciplinary Officer may make special arrangements as to the time and place for the completion and/or submission of any academic assignment or writing of any exam.
151. A Disciplinary Officer shall immediately advise the Registrar, the Secretary, the Dean of Students, the relevant Academic Dean(s), the Advisor and the Security Department of the temporary exclusion of a Student under this Section.
152. Any temporary exclusion ordered under this Section shall not be deemed to be in lieu of other proceedings under the Code if the conduct for which exclusion is ordered also constitutes an offence under articles 28 to 51 of the Code.

Suspension of a Student by the Vice-President or Delegate

153. A Vice-President or delegate may Suspend a Student, exclude the Student from any University premises and take any other steps that may be appropriate where:
 - a) the Student presents a clear and present danger to the safety of persons or to the activities of the University as a whole or any of its Members or groups of Members; or
 - b) the Student has, on one or more occasions, presented a clear danger to the safety of persons or to the activities of the University as a whole or of any of its Members or groups of Members and whose identity or action has only recently been identified; or
 - c) the Student's actions are of such a serious nature that they create an intimidating and hostile environment for work or study or constitute a serious threat to the ability of the University and its Members to carry out the University's functions.
154. In such a case, the Vice-President or delegate shall provide the Student with a written Suspension notice with a copy to the Registrar, the Secretary, the Dean of Students, the relevant Academic Dean(s), the Advisor, and the Security Department. The Vice-President or delegate shall inform the Student of their right to consult a student advocate from the Student Advocacy Office or a student advocacy service offered by a student association and shall also provide the Student with a copy of any supporting information and a copy of the Code. Should the Student Suspended from the University wish to meet an advocate on University premises, the Advisor may agree to make arrangements to allow such a meeting to take place.
155. In the case of a Suspended Student, the Vice-President or delegate shall immediately lay a complaint against the Student under Section V of the Code. The regular delays of the Code shall not apply and a hearing into the complaint shall be held as soon as possible and normally within twenty (20) Days of the Suspension order. The Vice-President may designate another Member to represent the University at the hearing. The Hearing Panel shall render its decision and inform the parties within five (5) Days of the hearing.
156. Should the suspended Student be unable to attend the hearing within the prescribed delay, they shall notify the Secretary and the Secretary shall schedule the Hearing Panel when deemed appropriate, further to consultation with the Chair of the Hearing Panel.
157. In the event that the Hearing Panel dismisses the original complaint, that decision shall lift the Suspension. Notwithstanding the foregoing, the decision shall not invalidate the Vice-President or delegate's prior action. However, every effort shall be made to remedy any academic disadvantage that the Student may have experienced as a consequence of the Suspension within the limits of what is allowed pursuant to the University's academic calendars and processes.
158. Upon the lifting of the Suspension, the Secretary shall notify the Registrar, the Dean of Students, the Provost and Vice-President, Academic, the Advisor and the Security Department.

Temporary Exclusion of a Member of the Faculty or Administrative and Support Staff

159. Where a member of the faculty or administrative and support staff presents a clear and present danger to the safety or security of persons or to the activities of the University as a whole or of any of its individual Members, the matter shall be dealt with according to the provisions of the relevant collective or employee agreement or University Policy.
160. A Member against whom such action is taken may seek recourse through the grievance procedures of the relevant collective or employee agreement or the grievance procedures contained in University Policy, where they exist.

Section XI: Miscellaneous

Confidential Nature of Files

161. The Advisor shall maintain suitable records of complaints and their disposition which shall be accessible only to the staff of the Office of Rights and Responsibilities or as required by law. Such files shall be destroyed according to a retention schedule determined in accordance with provincial legislation.
162. All individuals who hold information with respect to complaints under this Code, including, but not limited to, the Advisor, the Dean of Students, the Secretary, panel members and the Registrar, and the Department of Human Resources shall maintain the confidentiality of all information, files, documents, decisions, recordings and materials in relation to the complaint.

Delays

163. In the calculation of any delay for a hearing set out in Section VIII of the Code, the months of July and August and final examination periods shall not be counted. However, in the case of a hearing before a Hearing Panel or an Appeals Panel that commenced before July 1, the regular delays set out in the Code shall apply.

Notices

164. Any written notice to any person shall be sent by courier, registered mail or e-mail to the last address provided by the person to the University and shall be deemed to be received one (1) Day after delivery.

Language

165. Any party or witness participating in a hearing before a Hearing Panel or an Appeals Panel may make their presentation in either English or French. If an interpreter is required to satisfy the preceding, the request shall be made at the same time as the initial request for a Hearing Panel.

The Secretary-General

166. The overall responsibility for the implementation and recommended amendments to the Code shall rest with the Secretary-General.

OMBUDS OFFICE

Section 17.40

Ombudsperson
AMY FISH

Location

Sir George Williams Campus
Ombuds Office
GM Building, Room: 1005.00
514-848-2424, ext. 8658

TERMS OF REFERENCE OF THE OMBUDS OFFICE

Scope

1. The Ombuds Office shall be independent of all existing administrative structures of the University.
2. For the purposes of these Terms of Reference:
"Member" means employees, students, student applicants, exchange students, visiting students, postdoctoral fellows, interns, academic visitors, stagiaires or researchers.
3. The Ombudsperson shall provide an impartial and confidential service to Members who have been unable to resolve their concerns about the application of any policy, rule or procedure.
4. The Ombudsperson does not have jurisdiction regarding the application or interpretation of a collective or employee agreement nor into any alleged violation of the duty of fair representation against a certified union.
5. The Ombudsperson may not impose remedies or sanctions, or enforce any policy, rule or procedure. However, the Ombudsperson may make appropriate recommendations with regard to resolving complaints or improving policies, rules or procedures.

Functions of the Ombuds Office

6. Specifically, the Ombudsperson shall:
 - a. assist Members to resolve complaints informally and quickly and, when appropriate, recommend solutions to help resolve complaints;
 - b. explain decisions taken by University authorities when complaints are not substantiated;
 - c. inform Members about existing policies, rules and procedures and advise them as to the appropriate channel of redress for any concern or complaint they may have;
 - d. when appropriate, conduct an independent and objective inquiry into complaints when normal recourses have been exhausted;
 - e. when appropriate, conduct an independent and objective inquiry into the application of any policy, rule or procedure of the University;
 - f. bring to the attention of University authorities any policies, rules or procedures which appear unclear or inequitable or which might jeopardize the rights or freedoms of any Member. The Ombudsperson may suggest changes to existing policies, rules or procedures or offer advice on the development of new policies, rules or procedures;
 - g. actively promote these Terms of Reference and the services of the Office.

The Role of the Ombuds Office

7. The role of the Ombuds Office is to promote:
 - a. fairness;
 - b. reasonable promptness in decisions affecting Members;
 - c. decision-making that is based on adequate and appropriate procedures, criteria and rules;
 - d. clear communication, to those affected, of the procedures, criteria and rules used in making decisions.

Complaints

8. In dealing with complaints, the Ombudsperson shall act impartially, acting neither as an advocate for the Member seeking assistance nor as a defender of the University but rather, shall seek to promote procedural fairness and a reasonable outcome. In so doing, the Ombudsperson shall endeavour to maintain harmonious relations with all Members using tact, diplomacy and sensitivity.
9. The Ombudsperson shall have prompt access to such University records, reports or documents as are required to fulfill each function. Requests for such access shall receive priority from all Members.
10. A complaint should be brought to the attention of the Ombudsperson within three (3) months of the Member seeking assistance becoming aware of the situation giving rise to the complaint. This period may be extended at the discretion of the Ombudsperson.

11. If the Ombudsperson decides to inquire into a matter, the Ombudsperson shall make every effort to consult the relevant parties and give such parties the opportunity to reply.
12. Upon the conclusion of an inquiry, the Ombudsperson shall advise the Member seeking assistance of any findings and any formulated recommendations.
13. In addition, the Ombudsperson may bring any such findings to the attention of the University authorities and make whatever recommendations deemed appropriate and to whomever within the University deemed appropriate. Such recommendations may bear either on the actions or decision of an individual or a group, or on the policies, rules and procedures which gave rise to them. If, upon receipt of such findings or recommendations, a University authority proceeds to disciplinary action in order to resolve the matter, the procedure of any relevant University policy, collective or employee agreement shall be followed.
14. The Ombudsperson shall use judgement as to the appropriateness of intervention and may refuse to take up a case or may withdraw from a case if continued involvement is ill-advised. In such cases, the Ombudsperson shall inform the Member seeking assistance as to the appropriate channel of redress, if applicable.
15. If the Ombudsperson refuses to take up a case or withdraws from a case, a written statement of the reason shall be provided, upon request, to the Member seeking assistance.
16. The Ombudsperson shall not inquire into any matter that is before a court of law or is pending at or before any administrative tribunal outside the University. In addition, upon being informed that a legal claim or that a notice of a potential legal claim has been received by the University, the Ombudsperson shall immediately withdraw from a case and shall cease any communication with the Member seeking assistance.
17. Under no circumstances shall the mere fact of bringing a complaint to the attention of the Ombudsperson constitute a formal notification, for legal purposes, to the University.
18. The Ombudsperson shall avoid involvement in cases where there the Ombudsperson perceives there may be a conflict of interest.

Confidentiality and Protection from Reprisals

19. The Member seeking assistance shall be informed that should the pursuit of any inquiry necessitate the disclosure of details, any disclosure shall be limited to those who, in the opinion of the Ombudsperson, have a need to know.
20. Should a Member seeking assistance decide to withdraw an application, the Ombudsperson shall respect this decision. The Ombudsperson's decision to proceed, notwithstanding the Member's withdrawal, shall only be taken in extraordinary circumstances such as but not limited to situations where the safety of a person and/or the community may be at risk.
21. The Ombudsperson shall respect the confidentiality of any confidential information or materials which is accessed or consulted.
22. Should the Ombudsperson consider that the response to a recommendation has been unsatisfactory, the Ombudsperson shall be entitled to make the recommendation public, provided that, subject to Article 19, the confidentiality of the parties is respected.
23. Notwithstanding articles 19-22, confidentiality rights are subject to disclosure required by law and specifically situations outlined in the *Policy on the Emergency Release of Personal Information* (SG-5).
24. No Member who seeks the assistance of, files a complaint with, or cooperates in any manner with the Ombudsperson, shall be subject to any reprisals for so doing. The appropriate procedure set out in the relevant University policy or collective or employee agreement shall be followed in cases of alleged reprisals.

Files

25. The Ombudsperson shall maintain suitable records of complaints, findings and recommendations which shall be accessible only to the staff of the Ombuds Office or as required by law. Such files shall be destroyed according to a retention schedule determined in accordance with provincial legislation.

Appointment of Ombudsperson

26. The Ombudsperson shall be appointed by the Board of Governors ("the Board") upon the recommendation of a representative advisory committee struck for this purpose by the Board. The Committee shall be composed of representatives of the University constituencies, including at least one (1) undergraduate and one (1) graduate student and shall be chaired by the Secretary-General.
27. The Secretary-General shall act as the link between the Board and the Ombudsperson for administrative purposes.
28. The appointment shall be made for an initial term of two years, renewable for further terms of five years. During the fourth year of each such term, the Board shall appoint an appraisal committee, chaired by the Secretary-General, and composed of representatives of the University constituencies, including at least one (1) undergraduate and one (1) graduate student which shall:
 - a. review the operations of the Office;
 - b. make recommendations with respect to the Office;
 - c. make a recommendation with respect to the renewal of the Ombudsperson.
 This review shall include, but shall not be limited to, consultations with the University community as well as an external appraisal.
29. The Ombudsperson shall submit an annual report to the Board by November 1 of each year covering the previous academic year. The report shall detail activities of the Ombuds Office, including statistics on the concerns and complaints received, and shall make recommendations, as necessary. The Secretary-General shall ensure that the appropriate University authorities consider and respond to the recommendations contained in the report.
30. The annual report shall be published in the University's news site and submitted, for information purposes, to the Senate.

Complaints Relating to the Operations of the Ombuds Office

31. If a Member considers that the Ombudsperson has committed a procedural or substantive violation of these Terms of Reference, with respect to any matter to which the Member has been a party, the Member may submit a written complaint, detailing the alleged violation, to the Secretary-General. The Secretary-General shall investigate the complaint and inform the Member of the results of the investigation.
 32. If the Member is not satisfied with the response of the Secretary-General, the Member may request, in writing, within fifteen (15) working days of receiving the response, that the Appeals Committee of the Board review the complaint against the Ombudsperson.
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Student Life and Student Services

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Section 18

STUDENT LIFE AND STUDENT SERVICES

Section 18

Vice-Provost, Planning and Student Experience at Concordia
MARIUS PARASCHIVOIU

Executive Director, Student Services
Director of Student Success Centre
LAURA MITCHELL

Dean of Students
ANDREW WOODALL

Director of Campus Wellness and Support Services
GAYA ARASARATNAM

Director of Residence Life
LAUREN FARLEY

Director of Financial Aid and Awards
STEPHANIE SARIK

Director of Recreation and Athletics
D'ARCY RYAN

18.1 STUDENT LIFE AND STUDENT SERVICES

18.1.1 Student Services' Mission Statement

"We support academic success, skills development, health and wellness, meaningful community connections, and an outstanding student experience."

Approved by Concordia Council on Student Life • November 2019

18.1.2 Concordia Council on Student Life (CCSL)

The Council is the highest non-academic advisory committee in the University making recommendations regarding the quality of student life. The Council derives its authority from the University Board of Governors, and reports to the Board through the President. The Council, a parity body that provides support and advice on Student Services programs, policies and budgets, studies the range of student life on both campuses. The Council also disburses funds for student-led initiatives. The voting membership is composed of 10 students, two faculty members, and eight members of the Student Services staff. The Dean of Students chairs the Council. Its meetings are open to all members of the University community. Finally, CCSL oversees awards for extraordinary contribution to the Concordia community.

concordia.ca/ccsl

18.2 DEAN OF STUDENTS

Loyola Campus
Administration Building, Room: AD 121
514-848-2424, ext. 4239

Sir George Williams Campus
Hall Building, Room: H 440
514-848-2424, ext. 3517

The Dean of Students Office supports and promotes all aspects of student life on campus. Student associations and groups are one of the primary means by which students can engage meaningfully in the life of the institution and the greater community. By providing liaison with and support to student groups and their governing bodies, the Dean of Students encourages students to take responsibility for their own collective affairs and provide opportunities for their members to participate in student life. The Dean of Students Office also works with students seeking to start new groups on campus. In addition to supporting student groups

directly, the Dean of Students has programming that supports student engagement. This includes the LIVE Volunteer Centre, Concordia Community Compass, the Co-Curricular Record and capacity building with student groups. In short, the Dean of Students Office seeks to develop and deepen a sense of agency amongst students thereby adding to the success of their post-secondary experience.

concordia.ca/dos

18.2.1 Social, Political and Cultural Activities

There is a wide variety of social, political, and cultural events presented regularly by various student organizations and groups. There are student cafeterias, cafés and lounge facilities on each campus, and a student pub on the Sir George Williams Campus. There are art spaces run by both the University and students, and numerous festivals that partner with the University. The best way to get acquainted with these activities is to search the University's website as well as those of the various department and student associations.

concordia.ca/events
concordia.ca/dos

18.2.2 Multi-faith and Spirituality Centre

The Multi-faith and Spirituality Centre offers community and services for students who are asking questions about their role in society and seeking opportunities for reflection, resources for faith, interfaith engagement and spiritual practice, and spaces to study or relax. It is a home for all those who wish to celebrate the human spirit in the widest sense of the word. The approach is pluralistic, accepting and energizing, and encourages students to live with integrity and authenticity. Multi-faith and Spirituality Centre staff are also available to meet one-on-one with students and offer a listening ear.

Loyola Campus
Administration Building, Room: AD 103.8 and 103.10
514-848-2424, ext. 3593
Open Fridays or by appointment

Sir George Williams Campus
Annex Z, First floor and basement level
514-848-2424, ext. 3593

concordia.ca/mfsc

The Loyola Chapel

Located on the Loyola Campus, the Loyola Chapel is an inclusive and vibrant community space, run by the Multi-faith and Spirituality Centre, that promotes spiritual growth, diversity, presence and social engagement. Students are welcome to visit and inquire about the space for art events, wellness activities, community events, religious ceremonies and self-reflection.

Loyola Campus
F.C. Smith Building, Room: FC 110
514-848-2424, ext. 3588

concordia.ca/mfsc

18.2.3 LIVE Centre — Volunteer Resource Centre

Concordia's Volunteer Resource Centre, the LIVE Centre, seeks to connect Concordia students with volunteer opportunities on campus, in Montreal and abroad. The Centre helps students to discover the opportunities that best match their interests and career goals.

At the LIVE Centre, students can:

- Meet with Volunteer Ambassadors to explore the volunteer opportunities available to them
- Get answers to their questions about strategic volunteering
- Participate in special events such as workshops and fairs

Sir George Williams Campus
Hall Building, Room: H 508.2
514-848-2424, ext. 5578

concordia.ca/volunteer

18.2.4 Otsenhákta Student Centre

The Otsenhákta Student Centre (OSC) offers support services and resources to First Nations, Métis and Inuit students at Concordia. The Centre is a "home away from home," where Indigenous* students are invited to participate in various student-led as well as cultural activities, social gatherings, and workshops. There is space dedicated to quiet study, a computer lab, small library, and a lounge where students may relax between classes and interact with their peers. Staff are available to address individual needs, and provide support and encouragement for Indigenous students. First Nations, Métis and Inuit students are invited to self-identify through the portal.

*The term Indigenous refers to the First Peoples whose traditional, ancestral and sacred lands are located in Canada and the United States.

Sir George Williams Campus
Hall Building, Room: H 440
514-848-2424, ext. 7327

concordia.ca/students/otsenhakta

18.2.5 Concordia University Student Parents Centre

The Concordia University Student Parents Centre (CUSP) is dedicated to assisting students who are raising a family reach their educational goals by providing support services, resources, and programs and workshops. CUSP also organizes numerous social events throughout the year. The Centre offers a safe and accessible space to congregate, study, voice concerns, share interests, and develop a support network. Student parents and their families are welcome to drop by and use the Centre's rooms to work, relax, or consult with CUSP staff. CUSP has its own computer lab, a breastfeeding room, a large well-equipped kitchen, a lounge and kids play area.

Sir George Williams Campus
TD Building, Room: 24
514-848-2424, ext. 2431

concordia.ca/cusp

18.2.6 Sexual Assault Resource Centre

The Sexual Assault Resource Centre (SARC) provides education on sexual violence prevention and response to the Concordia community as well as confidential and non-judgmental support services to Concordia University students, staff and faculty who have been impacted by sexual violence. Support services include crisis intervention, counselling, accompaniment, referrals and a drop-in space. The SARC's approach to service delivery and prevention is trauma-informed, survivor centred, feminist and intersectional. The SARC's work is informed by Concordia's Policy on Sexual Violence and Sexual Misconduct as well as the requirements under Bill 151 in Quebec.

Sir George Williams Campus
Hall Building, Room: H 464
514-848-2424, ext. 3461

concordia.ca/sarc

18.3 STUDENT SUCCESS CENTRE

The mission of the Student Success Centre is to engage and empower students to achieve individual, academic and career success. A team of professional staff and trained student employees support students with individual appointments, workshops, groups and mentoring to build their skills, find the resources and opportunities to enhance their program of study and realize and achieve their goals. The Centre also offers two complementary university credit courses for readmitted students under the program title University Skills for Success. Services are offered on both campuses.

Loyola Campus
Administration Building, Room: AD 103
514-848-2424, ext. 3921/7345

Sir George Williams Campus
Hall Building, Room: H 745
514-848-2424, ext. 3921/7345

Online resources at concordia.ca/students/success

18.3.1 Services for New Students

Services for New Students helps new students make a successful transition to university by providing a welcoming environment and support throughout the first academic year.

- Orientation programs such as Start Right Orientation for newly admitted undergraduate and graduate students provide them with the opportunity to meet members of the university community and learn about the vast network of support services and university resources aimed at enhancing student success, as well as practical tips, strategies, and techniques to help students meet the demands of university-level study.
- The Map to Success workshops help students identify their own strengths and possible weaknesses and create a personal action plan for university success.
- First-year Check-ins offer new students a chance to escape their weekly routine and meet other first-year students all while learning some essential tips on navigating the challenges of university life and building a solid foundation for success from the first-year support counsellor.
- First-year support counselling is offered to new students who are looking for individual support and guidance in adjusting to life at Concordia in their first year. The first-year support counsellor is there to support new students regarding a variety of topics first-year students may face (such as isolation, overwhelming stress, lack of motivation), as well as connect them with other university resources for additional help.

Online resources at concordia.ca/students/success/new

18.3.2 Welcome Crew Mentoring Program

Welcome Crew mentors (upper-year Concordia students) are available to provide one-on-one support and guidance to new undergraduate and graduate students before the school year starts and all throughout their first year.

The Welcome Crew also has a drop-in office at both campuses (SGW-H 745 and LOY-AD 101) open to all Concordia students who are seeking information about and access to Concordia services and resources or simply some student-to-student tips on navigating university life. No appointment is necessary.

Online resources at concordia.ca/students/success/mentoring

18.3.3 Student Learning Services

Student Learning Services offers help to students making the transition to university learning, and to all students who want to improve their learning efficiency.

- Learning assistance is offered by learning and study skills specialists who help students on an individual basis to access and develop academic skills appropriate to their course and discipline.
- Writing assistance on both campuses is offered by peer writing assistants who help individual students of all abilities and at any stage of the writing process to improve their writing, in either English or French, including generating and organizing ideas, overcoming writer's block, and revising for clarity and correctness.
- Math-based tutoring is offered by peer math assistants who help individual students succeed in basic math and accounting courses and deal with math anxiety.
- Exam Prep Sessions: Free review sessions for basic math, accounting and economics courses are organized during fall and winter final exam periods.
- Study skills workshops are offered free of charge to help students improve their academic skills in reading, writing research papers, making oral presentations, developing problem-solving skills, note-taking, preparing for and taking different types of exams, improving memory and concentration, and managing time.
- Conversation groups and TalkTimes (one-hour small group conversation sessions) are led by peer assistants who help students practise their English speaking skills.
- Beginner and intermediate French conversation groups (Jazz-ons), led by peer assistants fluent in French, help students improve their French conversation skills.
- Strategic Learning (SL) sessions, facilitated by trained student leaders, are offered for certain difficult courses. Study groups, led by students with a strong background in the material, are organized for students in basic Economics courses.

Online resources at concordia.ca/students/success/learning-support

18.3.4 Career and Planning Services (CAPS)

Career and Planning Services (CAPS) offers the following services:

- Career Counselling: One-on-one guidance in exploring career options, decision-making and goal-setting
- Career Advising: Individualized job search assistance including effective strategies for finding work and job interview practice
- Career Panels: Hear Concordia graduates from different majors speak about their career path
- Job Search Workshops: Essential tips and strategies to help students land the job they want
- Drop-in Resumé Clinics: Students receive personalized feedback on their resumé

- Career Fairs: Students meet and network with employers in their industry
- Company Information Sessions: Students meet company representatives and learn about different organizations and hiring opportunities in their field

Sir George Williams Campus
Hall Building, Room: H 745
514-848-2424, ext. 7345/3921

Online resources at concordia.ca/students/success/career-planning-services

18.3.5 Student Success Resource Centre

The Student Success Resource Centre on the Sir George Williams Campus (H 757) provides a relaxed and comfortable setting where students can access both online and print resources that support the services available at the Student Success Centre, including materials and information on:

- Career exploration and job search preparation
- Study skills and learning strategies
- Personal development and life management skills
- Dictionaries, grammar references, writing style manuals, science and math guides
- Graduate school guides and the application process
- Practice guides for GRE, TOEFL, MELAB, GMAT, LMAT, and MCAT

Online resources at concordia.ca/students/success/resource-centre

18.3.6 Student Advocacy Office

The Student Advocacy Office offers support services to students who need assistance with issues relating to the *Academic Code of Conduct* and the *Code of Rights and Responsibilities*, such as cases, interviews, hearings and appeals. The Student Advocacy Office also assists students with other administrative processes including various student requests and appeals. The services offered in the Student Advocacy Office are free and confidential for all Concordia students. In addition to direct support for students, the Student Advocacy Office offers workshops on the topic of academic integrity.

Sir George Williams Campus
GM Building, Room: 320
514-848-2424, ext. 3992/5249

concordia.ca/offices/advocacy

18.4 CAMPUS WELLNESS AND SUPPORT SERVICES

Campus Wellness and Support Services offers a wide range of services and programs that support the health and well-being of students from the time they enter university through to graduation. Services, including a full-service medical clinic, personal counselling, and services for students with disabilities, are provided by a team of medical and professional staff who seek to enhance the students' experience by actively encouraging healthy choices, promoting awareness and education, and reducing barriers.

18.4.1 Health Services

Concordia University Health Services is an on-campus clinic and health promotion centre that serves the students, staff and faculty of the University. Health Services has offices at both the Sir George Williams (GM 200) and Loyola campuses (AD 131). The multidisciplinary team includes nurses, family doctors, psychiatrists, a psychologist and health promotion specialists.

Services include:

- booked appointments with nurses and physicians for assessment, illness prevention, treatment and follow-up of non-urgent or chronic health issues
- same-day, urgent care clinic for the evaluation of unexpected illness or injury by nurses and/or family doctors (spots are limited)
- nursing services without an appointment
- sexual health services including contraception counselling, PAP tests and assessment and treatment of sexually transmitted infections
- preventive medical care, including immunizations (i.e. vaccines)
- mental health assessment and consultation (psychiatrist or psychologist with internal referral)
- healthy living counselling with health promotion specialists for smoking cessation, healthy eating, weight loss/gain, sleep and more

For those services that are not offered, such as dental care, eye care, medical imaging, medical specialists and physiotherapy, Concordia Health Services can provide referrals and a list of local resources.

Health Insurance

Proof of health insurance is not required to meet with a nurse, the psychologist or a health promotion specialist; a valid Concordia ID card simply needs to be presented.

Proof of insurance is required to see a family doctor or psychiatrist. Students must present their valid health insurance card from Quebec, another Canadian province or health insurance provided to international students (i.e. Blue Cross).

If students do not have valid health insurance, they will be required to pay for a visit with a family doctor or psychiatrist. Please consult the Health Services website for detailed information on health insurance.

Locations

Loyola Campus

7141 Sherbrooke St. W., Room: AD 131

Tel.: 514-848-2424, ext. 3575

Fax: 514-848-4533

Monday to Friday: 9 to 11:30 a.m., 1 to 4:30 p.m.

Sir George Williams Campus

1550 De Maisonneuve Blvd. W. (GM Building), Room: GM 200

Tel.: 514-848-2424, ext. 3565

Fax: 514-848-2834

Monday to Friday: 9 a.m. to 5 p.m.

To learn more about Health Services, consult concordia.ca/health.

18.4.2 Counselling and Psychological Services

Counselling and Psychological Services (CPS) is staffed by a team of licensed psychologists, psychotherapists, social workers and art therapists who provide mental health, wellness and psychological support to currently registered Concordia University students.

Short-Term Counselling

CPS offers short-term, solution-focused counselling where the goal is to help students find new approaches to overcoming present difficulties or challenges. Licensed mental-health professionals work with students on a care plan that may include one-on-one appointments, group therapy, individual reflections, and psycho-educational workshops. The care plan is tailored to the student's unique needs and goals.

Crisis Counselling Appointments

At crisis appointments, counsellors work with students to assess the level of psychological distress they are experiencing and establish a plan of action that may include connecting them with a hospital, a crisis centre in their neighbourhood, or other urgent care resources. The goal is to get students connected as quickly as possible to the resources that would best serve them.

If experiencing a crisis, students can contact CPS at 514-848-2424, ext. 3545 (SGW) or ext. 3555 (LOY), or come to their reception desks at either campus to request a crisis counselling appointment. Their offices are open Monday to Friday, 9 a.m. to 5 p.m.

If students are concerned about someone else, they can contact CPS to provide them with a crisis consultation.

Zen Dens

The Zen Dens are places where students can get away from the demands of being a student. Students can drop in to these spaces across campus to relax, unwind, and also gain some information on how to de-stress, become more mindful, and improve their wellness. Students can meet the counsellors, or access wellness programming, peer support, health promotion, disability advising, and more.

Other Services

- Consultation (students, staff, faculty)
- Psycho-educational and self-development workshops
- Outreach and various mental health-related events throughout the year

Confidentiality is assured.

Loyola Campus

Administration Building, Room: AD 103

514-848-2424, ext. 3555

Sir George Williams Campus

GM Building, Room: 300

514-848-2424, ext. 3545

Online resources at concordia.ca/students/counselling

18.4.3 Access Centre for Students with Disabilities

The Access Centre for Students with Disabilities (ACSD) is committed to reducing barriers to academic participation, raising awareness about students with disabilities, and engaging in community building that promotes an inclusive environment at Concordia. Throughout their studies at Concordia, students with vision, hearing, mobility, hand or coordination impairments, chronic medical conditions, learning disabilities, attention deficit disorder, mental health conditions, autism spectrum disorder and other neurodevelopmental disorders may require academic accommodations. These accommodations can be set up through the ACSD. Accommodations can include, but are not limited to the following: exam accommodations, alternative media transcription, interpreter services, attendant care, professional notetaking services, and classroom relocation services for individuals with reduced mobility. All students with disabilities are advised to contact the ACSD as early as possible for assistance in meeting their needs. In particular, students using interpreter services, attendant care, or braille are encouraged to contact the office prior to the beginning of classes. All accommodations are contingent upon the timely submission of appropriate documentation. The ACSD can also provide services to students with temporary disability conditions that are generally the result of an illness or injury.

Accommodations for Examinations

It is the responsibility of the student to request exam accommodations, and verify specific exam arrangements with the ACSD. All accommodations provided by the ACSD are exam-specific as well as disability-specific.

The Policy on Accessibility for Students with Disabilities is available at concordia.ca/content/dam/common/docs/policies/official-policies/PRVPAA-14.pdf.

*Sir George Williams Campus
GM Building, Room: 300
514-848-2424, ext. 3525*

Loyola Exam Centre
Administration Building, Room: AD 130
514-848-2424, ext. 4562*

*Please note that the Loyola office is not staffed on a full-time basis. If dropping off exams, please call ahead.

concordia.ca/students/accessibility

18.5 RESIDENCE LIFE

Residence Life's mission is to make Concordia home to all its residents by supporting them to grow, connect with community and create positive change. It aims to create a welcoming and diverse community that is inclusive, supportive, and safe. It houses 900 students, with a focus on the first-year undergraduate experience and students who are living more than 50 kilometres outside of the Montreal area. There are resident assistants who live in the building and are upper-year undergraduate students who act as mentors to the students living in the building. They create social activities to encourage a positive living environment, assist students in connecting them with resources for both personal and academic needs, and ensure a safe living environment.

Loyola Campus

There are three residences on the Loyola Campus — Hingston Hall (HA and HB) and the Jesuit Residence (JR). **Hingston Hall (HA)** is a four-storey co-ed residence that houses 131 full-time undergraduate students in both double- and single-occupancy rooms. Communal washrooms and kitchenette/lounges can be found on each floor, while laundry facilities, games and T.V. rooms, and study spaces are located on the main floor. **Hingston Hall (HB)** is a four-storey co-ed residence that houses 121 full-time undergraduate students. All rooms are single occupancy. Communal washrooms and kitchenette/lounges are found on each floor, while laundry facilities, games and T.V. rooms are located on the main floor. **Jesuit Residence (JR)** is a seven-storey co-ed residence that houses both full-time undergraduate and graduate students. This building has 52 single-occupancy rooms, all with private ensuite washrooms. A communal games room and kitchenette are located on the seventh floor, while laundry facilities are located downstairs.

Sir George Williams Campus

Grey Nuns Residence is a four-storey co-ed residence that houses 601 full-time, first-year undergraduate and some graduate students. Grey Nuns offers both single- and double-occupancy rooms. Twenty-six rooms have their own ensuite washroom, while most residents use the many communal washrooms and shower rooms. There are kitchenette/lounges and laundry facilities located throughout the building. The downtown dining hall is located within Grey Nuns on the main floor.

Information about pricing and room sizes can be found online at concordia.ca/students/housing/residences.

By law, students are required to sign a *Lease in an Educational Institution* as issued by the Régie du logement – Gouvernement du Québec. The lease is for approximately eight and a half months, from the third week of August to the first week of May. Exact dates

vary depending on the academic calendar. All residents must also sign a Code of Community Living Standards and Discipline that outlines expectations and rules about community living. Finally, all residents are required to purchase the meal plan provided by Concordia's food-services partner, Aramark Canada.

Being accepted to Concordia does not guarantee admission to residence. A separate application for on-campus housing can be accessed through the student portal once acceptance is issued by the University.

More information about Residence Life can be found online at concordia.ca/housing.

18.6 FINANCIAL AID AND AWARDS OFFICE

General Information

The Financial Aid and Awards Office helps students manage their financial investment in their university education. It provides advice and guidance on budget planning, scholarships, bursaries, academic awards, work-study job opportunities and government student financial aid.

18.6.1 Government of Quebec Student Financial Aid (Aide Financière aux Études)

It is highly recommended that students apply for Quebec Loans and Bursaries online at the Aide financière aux études website: quebec.ca/education/aide-financiere-aux-etudes. All students should apply a minimum of eight weeks prior to their studies. Each student is responsible for completing his or her application form and forwarding it directly to the government. Once a student's aid is calculated, he or she will receive a formal calculation from Aide financière aux études indicating the amount of aid he or she will be entitled to receive.

It is important to note that the Loans and Bursaries Program is based on the principle that the student and, in some cases, his or her parents, sponsor or spouse, must contribute toward the cost of the student's education according to their respective means. In addition, the Government Loan and Bursary programs serve as a supplement to a student's own resources. Therefore, a student should not expect that all of his/her expenses would be covered through government aid.

Financial assistance is initially granted in the form of a loan that a student must pay back at the end of his or her full-time studies. If a student is entitled to more than the maximum loan, he or she may receive additional assistance in the form of a bursary, which does not have to be paid back.

Eligibility

Students are eligible for consideration of government assistance if they meet the following conditions:

1. are a Canadian citizen or have legal status in Canada;
2. are a Quebec resident or are deemed to reside in Quebec;
3. have been admitted to a recognized educational institution and be pursuing or be deemed to be pursuing full-time studies in a recognized program*;
4. have not exceeded the number of months of eligibility for which financial assistance may be awarded;
5. have not reached the debt limit for their level of education, type of degree or program;
6. do not have sufficient financial resources to pursue their studies.

*For further information, contact the Financial Aid and Awards Office.

The Government of Quebec sets the maximums for cumulative debt loads and period of eligibility. The maximum cumulative debt load is unrelated to students' eligibility periods; in other words, students might not be eligible for any assistance if they have accumulated a maximum debt load even if they have not used all their eligibility periods.

<i>Level of study</i>	<i>Maximum limit of loans</i>
Secondary vocational school	\$ 22,000
College: general	\$ 16,000
technical	\$ 23,000
non-subsidized	\$ 27,000
University: undergraduate programs requiring less than eight terms (BA)	\$ 30,000
undergraduate programs requiring more than eight terms (co-op, engineering)	\$ 36,000
graduate: master's level	\$ 42,000
master's level with thesis	\$ 48,000
doctorate level	\$ 55,000

The maximum period of eligibility is dependent on the students' program, level of study as well as other factors affecting their file. In general, the maximum period of eligibility set for university students is as follows:

BASIC PERIOD OF ELIGIBILITY

<i>Level of education</i>	<i>Maximum periods of eligibility</i>
University (undergraduate)	39 months
University (master's degree)	31 months
University (doctoral degree)	47 months

Note: The maximum number of months for which financial assistance can be awarded to students enrolled in university or equivalent programs is 88 (all levels combined).

Financial Assistance for Part-Time Students

Consult the Aide financière aux études website at quebec.ca/education/aide-financiere-aux-etudes for funding available to part-time students.

Students with Disabilities

Students in any Faculty, who are Canadian citizens or have legal status in Canada and who are Quebec residents, may be eligible for additional aid. For information on specific forms, please contact the Financial Aid and Awards Office. Further information is also available at the Office for Students with Disabilities.

18.6.2 Other Canadian Federal and Provincial Student Aid Programs

Students applying for Federal and Provincial Loans (other than Quebec) must be a Canadian citizen or have legal status in Canada and be a resident or be deemed to reside in the province to which they are applying. For further information, contact the Financial Aid and Awards Office.

Explore (Second-Language Summer Program)

Students across Canada may apply for bursaries to enrol in a five-week immersion course in French or English at accredited institutions. The aim of this program is to provide post-secondary students with the opportunity to learn one of Canada's official languages as their second official language and to improve their knowledge of the culture represented by that language. Candidates whose mother tongue is neither French nor English may not receive bursaries to study English or French as their first official language. These bursaries will defray the cost of tuition, instructional materials, and room and board, but will not cover transportation costs or pocket money.

Inquiries regarding the awarding of bursaries (e.g. eligibility) should be made to the students' provincial coordinator or territorial official, the names and addresses of which are available at the Financial Aid and Awards Office.

Eligibility:

Students are eligible if they meet the following conditions:

- a) are Canadian citizens or permanent residents at the time of application. Students studying in Canada on visas are not eligible;
- b) have general post-secondary standing or can prove that they will have obtained such a status by the time they become involved in the program;
- c) were enrolled as full-time students during the previous academic year.

Language Assistant Programs — Odyssey

Language assistants are students who help students with the spoken language by conveying to them the real-life aspect of the language. They carry out their duties under the supervision of second-language teachers. Full-time language assistants work for nine months (September to May 31) for an average of 25 hours per week and may earn up to \$18,500. Part-time language assistants are employed for eight months for an average of eight hours per week (September to April). The program also provides reimbursement for certain expenses.

18.6.3 Work-Study Program and Concordia Student Financial Aid

I. Work-Study Program

Work-Study is a student financial assistance program funded by Concordia University and the Government of Quebec. It is designed to assist full-time Concordia University students (with the exception of the summer session), who are in financial need, to pursue their academic goals by providing part-time employment on campus. (Up to 20 hours per week for a maximum of 200 hours per term.)

Eligibility: Students are eligible to participate in the Work-Study Program if they meet the following criteria:

- are enrolled in a degree program (bachelor's, master's or PhD);
- are studying full-time (with the exception of the summer session);
- are making satisfactory academic progress (GPA over 2.00)
- for Canadian students: are receiving government student aid for the current academic year*;
- for International students: are at least in their second year of attendance at Concordia University, paying the full international rate and experiencing an exceptional financial difficulty.

*Conditional work-study authorizations may be issued once a student has applied for government student aid.

Further information can be found at concordia.ca/students/financial-support/work-study/about-work-studyprograms.

II. Tuition Deferrals

Students who are blocked from registering for an upcoming term because of an overdue student account balance may apply for a tuition deferral which would provide them the ability to register for courses.

Eligibility for a tuition deferral is based upon the following conditions:

- The student has received confirmation of funding from a government student aid program that is disbursed by the University's Financial Aid and Awards Office.
- The amount of upcoming government student aid must be greater than the overdue amount in the student's account balance (i.e. fall student aid disbursement is \$3,000 and the outstanding student account balance is \$2,500).
- The student must plan to register as a full-time student, according to his/her government's definition of full-time.
- The student must have a plan on how he or she will be able to enter his or her next term of study without requiring an additional tuition deferral.
- There may be further requirements or conditions if a student has received a tuition deferral in a previous term.

If students receive approval for a tuition deferral, they will still be responsible for late fees and interest on their outstanding loan balance. The purpose of applying for a tuition deferral is to allow students participating in a government loan/bursary program the opportunity to register for the upcoming term.

Students must meet with a financial aid advisor to apply for a tuition deferral.

III. Short-Term Advances

Funds are available at the Financial Aid and Awards Office for students experiencing financial difficulties. Such advances are issued to undergraduate and graduate, full-time and part-time students at Concordia University whose funding is from a government student aid program that is disbursed by the University's Financial Aid. Students must see a financial aid advisor for further information on eligibility requirements and conditions.

IV. Emergency Financial Assistance

Students experiencing an unanticipated emergency, and who can demonstrate exceptional or unexpected circumstances which are creating considerable financial hardship for them and which require an urgent financial response, should visit the Financial Aid and Awards Office to discuss emergency financial assistance.

18.6.4 Concordia University Scholarships and Bursaries

Two types of awards are available to undergraduate students through the Financial Aid and Awards Office: scholarships and bursaries. Entrance scholarships and entrance bursaries are available to newly admitted students entering university programs for the first time. In-course scholarships and in-course bursaries are available to returning students who have completed at least one year of studies at Concordia University. In all cases, scholarships are awarded on the basis of scholastic achievement and, in some cases, consideration is given to the involvement in university life or other non-academic criteria. Bursaries are awarded based on financial need and acceptable academic standing, and sometimes additional criteria may apply.

Unless otherwise stated, awards are granted to full-time students who are Canadian citizens or permanent residents. Unless expressly authorized by the University Undergraduate Scholarships and Awards Committee, award recipients may hold only one of the following types of awards in a given academic year: Concordia entrance scholarships, Concordia in-course scholarships, or Concordia in-course bursaries. For additional information on all undergraduate awards, consult the Financial Aid and Awards Office (FAAO) website at concordia.ca/faao.

I. Entrance Scholarships

Recipients are recommended to the Undergraduate Scholarship and Awards Committee by the Faculties during admission processing on the basis of academic achievement during the first three semesters of Cegep or equivalent. For a complete list, consult the FAAO website.

II. In-Course Scholarships

In-course scholarships are awarded by the Undergraduate Scholarships and Awards Committee to full-time students (unless otherwise indicated) who have completed at least 24 credits at Concordia. Recipients are selected on the basis of the previous year's assessment GPA as calculated by the Office of the Registrar. Unless otherwise indicated, no application is required. For a complete list, consult the FAAO website.

III. Entrance Bursaries

Entrance bursaries are available to students entering university studies for the first time. An application form must be submitted online along with various supporting documents. Eligibility is determined following a financial needs test, a review of the candidate's academic ranking as assigned during admission application processing, and a holistic appreciation of the applicant's personal statements on the entrance bursary application form. Students who have received a tuition waiver from the University are not eligible to apply for an entrance bursary. For a complete list of available entrance bursaries, consult the FAAO website.

IV. In-Course Bursaries

In-course bursaries are awarded on the basis of financial need and satisfactory academic standing following committee review of the bursary application. Eligibility is determined following a financial needs test, a review of the candidate's academic standing, and a holistic appreciation of the applicant's personal statements on the in-course bursary application form. Students who have received a tuition waiver from the University are not eligible to apply for an in-course bursary. For a complete list, consult the FAAO website.

18.6.5 Awards Offered by External Organizations

Awards sponsored and administered by external associations, companies, foundations, societies, and clubs, are listed from time to time on the FAAO website and bulletin boards. In general, applications must be submitted to the organization administering the award, unless otherwise indicated.

18.6.6 Students from the United States — Federal Student Aid

Citizens of the United States and certain eligible non-citizens studying at Concordia may be eligible for financial aid through the U.S. Department of Education in the form of a Federal Direct Loan. Financing may also be available through alternative non-governmental sources such as Sallie Mae. Only students enrolled in degree programs are eligible to receive U.S. Government student loan funding. Undergraduate and graduate students enrolled in diploma and certificate programs are not eligible for U.S. Government funding at Concordia.

Effective July 1, 2010, the U.S. Department of Education requires all schools disbursing U.S. Government loans to do so through the U.S. Government's William D. Ford Federal Direct Loan Program. This means that the U.S. Government will be electronically disbursing student loan funding directly to schools without the participation of any third parties (i.e. banks or financial institutions). Under the Direct Loan program, the lender is the United States Department of Education.

I. Concordia University Requirements for Beginning the Application Process for Federal Student Aid

The loan application process at Concordia University is "borrower initiated." This means that for each academic year, students must begin the loan process by completing a Free Application for Federal Student Aid (FAFSA) application, a Master Promissory Note and a Concordia University U.S. Direct Loan Application form. The Concordia University U.S. Direct Loan Application form is available on Concordia's Financial Aid and Awards website. Students must forward all application documents to the Financial Aid and Awards Office, as they are not received through electronic means. For the FAFSA form, Concordia's school code is 00836500.

II. Maintaining Eligibility

Course Load

Students must be enrolled on a full-time (12 credits or more) or half-time (6 credits or more) basis in order to qualify for aid through the U.S. Department of Education.

Program Eligibility

All programs offered to Direct Loan recipients must meet the U.S. Department of Education's program eligibility requirements, as outlined in the Code of Federal Regulations. In the case of foreign institutions, for recipients of Direct Loan funding, this means that the version of the program into which the student is accepted will not include the following:

1. Any use of a telecommunications course, correspondence course or direct assessment (CFR 600.51 [d]).
 2. Any course, research, internship or externship or special studies that takes place in the United States (CFR 600.52).
 3. Any arrangement where a Title IV ineligible entity provides any portion of the eligible institution's programs (CFR 600.54).
- As such, students receiving Title IV aid must register for on-campus courses only throughout their academic career at Concordia in order to be considered enrolled in an eligible program. Should students register in any ineligible course as outlined above, they are automatically considered to be in an ineligible program and will immediately become ineligible for Title IV funds. There is no appeal process for this requirement. Students are encouraged to discuss their study plans with a Financial Aid advisor **before** registering.

Satisfactory Academic Progress Policy

Students are required to make satisfactory academic progress towards the completion of their degree. For the purposes of Title IV funding, satisfactory academic progress is determined by qualitative measure (grade point average) and quantitative measure (completion rate). Federal regulations require that the University tracks the academic progress of all student loan recipients from the first date of enrolment at Concordia University, whether or not loans were received at that time. Credits transferred from all other credit sources will be considered as attempted and completed credits in the evaluation of the completion rate standards, but these courses do not affect the calculation of a student's GPA.

To achieve satisfactory academic progress as per the U.S. Department of Education, students must:

- Maintain a minimum assessment GPA of 2.00 and
- Maintain a minimum cumulative completion rate of two-thirds of credits attempted (67%) and
- Complete their educational program within a time frame no longer than 150% of its published length.
(For example, completing the program after attempting a maximum of 180 credits for a 120-credit program).

Concordia University requirements for satisfactory academic progress:

In order to be eligible for U.S. loans, students must meet Concordia University's institutional requirements for minimum satisfactory performance. These are defined in the Undergraduate and the Graduate Calendars under each Faculty's section. Note that students must maintain a minimum assessment GPA of 2.00 in all undergraduate Faculties and 3.00 for graduate Faculties.

DISC, INC, MED, DEF, AU, F/FNS/R/NR and S grades, and repeated course work will be treated as follows:

- Course withdrawals (DISC) after the drop/add period are not included in the GPA calculation but are considered as non-completion of attempted course work.

- Incomplete (INC) indicates that a student has not completed required course work and that the instructor has agreed to accept the work after the due date. The notation is always used in combination with a letter grade such as B/INC and the grade is used in the calculation of the various GPAs.
- Medical (MED) indicates that a student has been unable to write a final examination or complete other assignments due to a long-term medical situation. A MED notation carries no grade point value.
- Deferred (DEF) indicates that a student has been unable to write a final examination. A DEF notation carries no grade point value.
- An audit (AU) grade is not considered attempted course work. It is not included in the GPA calculation or completion rate determinations.
- F/FNS/NR grades are treated as attempted credits that were not earned, and so are included in both the calculation of the GPA and minimum completion rate.
- A satisfactory grade (S) is treated as attempted credits that are earned, but is not included in the calculation of the GPA.
- In the case of repeated courses, only the grade corresponding to the latest attempt of the course will be used in the calculation of the various GPAs, but every repeated attempt will be included in the completion rate determinations. No loans can be disbursed for a repeated attempt if a student has already achieved a passing grade for that course. The University's policy means that students receive aid for only one repeat of a course.

Student Loan Denied Status

Students who fail to meet the minimum 2.00 assessment grade point average standard, or fail to complete at least two-thirds of cumulative credits attempted, will immediately lose eligibility for U.S. Government funding. No government financial aid will be disbursed unless the student is removed from Student Loan Denied status.

150% Rule: If students are first-time borrowers on or after July 1, 2013, there is a limit on the maximum period of time (measured in academic years) that they can receive Direct Subsidized Loans. This time limit does not apply to Direct Unsubsidized Loans or Direct PLUS Loans. In cases where this limit applies, students may not receive Direct Subsidized Loans for more than 150% of the published length of their current program. This is called their "maximum eligibility period." For example, if they are enrolled in a four-year bachelor's degree program, the maximum period for which they can receive Direct Subsidized Loans is six years (150% of four years = six years).

Because their maximum eligibility period is based on the length of their current program of study, their maximum eligibility period can change if they change to a program that has a different length. Also, if they receive Direct Subsidized Loans for one program and then change to another program, the Direct Subsidized Loans they received for the earlier program will generally count toward their new maximum eligibility period. Certain types of enrolment may cause them to become responsible for the interest that accrues on their Direct Subsidized Loans when the U.S. Department of Education usually would have paid it.

Reinstatement of Aid After Student Loan Denied Status

Students may be reinstated for financial aid purposes after having been placed on Student Loan Denied status in one of the following ways:

- The students attend Concordia University, pay for tuition and fees without the help of government financial aid, and achieve Satisfactory Academic Progress standards. Under this scenario, students regain aid eligibility on a probationary status.
- The students must submit a written appeal in accordance with the appeal process. If the Financial Aid and Awards Office grants the appeal, the students will then be placed on Student Loan Probation for one payment period. Students must attain a minimum 2.00 GPA in that payment period to qualify for the second disbursement.

Appeal Process

Students may appeal their Student Loan Denied status if it can be determined that an unusual or extraordinary situation affected their academic progress. An example of an unusual or extraordinary situation would be a death in the family or a serious illness.

Appeals must be:

- Submitted in writing to the Financial Aid and Awards Office's manager of client services or financial aid advisor by the date specified in the Student Loan Denied notification letter.
- Submitted with documentation that supports the unusual or extraordinary situation (i.e. death of a family member is supported by a death certificate). In addition, statements must include a specific plan for academic recovery.

III. Return of Title IV Funds (R2T4) Policy

This policy applies only to eligible U.S. and eligible non-U.S. citizens receiving Title IV funds, specifically the Federal Direct loans. Title IV funds are awarded to students under the assumption that they will attend school for the entire period for which the assistance is awarded. When students withdraw from all their courses, for any reason including medical withdrawals, they may no longer be eligible for the full amount of Title IV funds that they were originally scheduled to receive. If students withdraw from all their courses prior to completing more than 60% of a term, they may be required to repay a portion of the federal financial aid that they received for that term. In addition, students may also owe the University any loan funds returned on their behalf. A pro rata schedule is used to determine the amount of federal student aid funds they will have earned at the time of the withdrawal. Federal aid includes Federal Direct Loans (subsidized and unsubsidized), Parent Plus Loans and Graduate Plus Loans.

The return of funds is based upon the concept that students earn their financial aid in proportion to the amount of time in which they are enrolled. Under this reasoning, students who withdraw in the second week of classes have earned less of their financial aid than students who withdraw in the seventh week. Once 60% of the term is completed, students are considered to have earned all of their financial aid and will not be required to return any funds.

The students' withdrawal date is either:

- the date they officially withdrew during the official withdrawal period (see §16.1.5 for details)
- the date they submitted their petition to withdraw to their Faculty or School's Student Request Committee if the withdrawal period has ended and the student successfully petitioned to withdraw or
- the start date of their leave of absence, in the case of graduate students. The notion of "leave of absence" applies only to graduate students as per the Graduate Calendar or
- the date they were expelled/dismissed from the University or
- the date they died, if they passed away during the term.

If a student ceases attendance (drops or withdraws) from all his or her Title IV eligible courses in a payment period, or period of enrolment, the student must be considered a withdrawal for Title IV purposes.

Students must immediately inform the Financial Aid and Awards Office of their withdrawal by email to help@faao.concordia.ca.

The Financial Aid and Awards Office (FAAO) then determines the return of Title IV funds percentage. Institutions are required to determine the percentage of Title IV aid "earned" by students and to return the unearned portion to the appropriate aid program. Regulations require schools to perform calculations within 30 days from the date the school determines the students' complete withdrawal. The school must return the funds within 45 days of the calculation.

The return of Title IV funds policy follows these steps:

Step 1: Student's Title IV Information

The FAACO will determine:

- a) The total amount of Title IV aid disbursed (not aid that could have been disbursed) for the term in which the students withdrew. The student's Title IV aid is counted as aid disbursed in the calculation if it has been applied to the students' account on or before the date the students withdrew.
- b) The total amount of Title IV aid disbursed plus the Title IV aid that could have been disbursed for the term in which the students withdrew.

Step 2: Percentage of Title IV Aid Earned

The FAACO will calculate the percentage of Title IV aid earned as follows:

The number of calendar days completed by the students divided by the total number of calendar days in the term in which the students withdrew. The total number of calendar days in a term shall exclude any scheduled breaks of more than five days.

Days Attended ÷ Days in Enrolment Period = Percentage Completed

If the calculated percentage exceeds 60%, then students have "earned" all the Title IV aid for the enrolment period.

Step 3: Amount of Title IV Earned by the Student

The FAACO will calculate the amount of Title IV earned as follows:

The percentage of Title IV aid earned (Step 2) multiplied by the total amount of Title IV aid disbursed or that could have been disbursed for the term in which the students withdrew (Step 1-B).

Total Aid Disbursed x Percentage Completed = Earned Aid

Step 4: Amount of Title IV Aid to be Disbursed or Returned

- If the aid already disbursed equals the earned aid, no further action is required.
- If the aid already disbursed is greater than the earned aid, the difference must be returned to the appropriate Title IV aid program.

Total Disbursed Aid – Earned Aid = Unearned Aid to be Returned

If the aid already disbursed is less than the earned aid, the FAACO will calculate a Post-Withdrawal Disbursement.

Return of the Title IV Aid, based on the type of aid disbursed, in the following order:

1. Federal Unsubsidized Direct Loan
2. Federal Subsidized Direct Loan
3. Parent Plus Loan or Graduate Plus Loan

Loans must be repaid by the loan borrower (student/parent) as outlined in the terms of the borrower's promissory note. The students' grace period for loan repayments for Federal Unsubsidized and Subsidized Direct Loans will begin on the day of the withdrawal from the University. Students should contact the lender if they have questions regarding their grace period or repayment status.

Institutional and student responsibility in regard to the Federal Return of Title IV Funds policy

The FAACO's responsibilities in regard to the Return of Title IV Funds policy include:

- Providing each student with the information given in this policy.
- Identifying students affected by this policy and completing the Return of Title IV Funds calculation.
- Informing students of the result of the Return of Title IV Funds calculation and any balance owed to the University as a result of a required return of funds.
- Returning any unearned Title IV aid that is due to the Title IV programs and, if applicable, notifying the borrowers' holder of federal loan funds of the students' withdrawal date.
- Notifying students and/or Plus borrowers of eligibility for a Post-Withdrawal Disbursement, if applicable.

The students' responsibilities in regard to the Return of Title IV Funds policy include:

- Becoming aware of their responsibilities under the Return of Title IV Funds policy.
- Understanding how withdrawing from all their courses affects eligibility for Title IV aid.
- Resolving any outstanding balance owed to Concordia University resulting from a required return of unearned Title IV aid.

The procedures and policies listed above are subject to change without advance notice.

18.6.7 International Students from Other Countries

International students may be eligible for financial assistance in the form of scholarships, bursaries and part-time employment on campus via the Work-Study program. Further information on undergraduate scholarships and bursaries, and the Work-Study program, can be found at concordia.ca/faao and concordia.ca/students/financial-support/work-study/about-work-studyprograms.

International students from countries other than the United States who may require government student financial aid should contact their home country's Department of Education for possible educational financing support opportunities.

The Canadian International Development Agency offers training assistance to most developing countries with which Canada has a co-operative agreement; however, students must be nominated by their own government. For further information, contact the Scholarship Committee, Human Resources Directorate, Canadian International Development Agency, 200 Promenade du Portage, Hull, Quebec K1A 0G4.

18.7 RECREATION AND ATHLETICS

The Department of Recreation and Athletics believes physical fitness, interuniversity athletics and recreation opportunities are an integral part of a Concordia University education. Its goals are to provide services and programming that enrich the educational experience of students and to offer opportunities for staff, faculty and the local community to be physically active in a safe and healthy environment.

Le Gym fitness centre on the Sir George Williams Campus, in the EV pavilion, is a modern and comprehensive fitness and workout facility that serves as a downtown focal point for instructional programs. It's easy to get to, located at the metro level of the EV pavilion and linked underground to the John Molson School of Business and the Hall and Library buildings.

The Loyola Campus is home to PERFORM, a state-of-the-art research facility dedicated to improving health through prevention, that also includes a conditioning floor. PERFORM and its facilities offer students the chance to get fit while benefiting from the latest teaching methods and research findings. Loyola Campus also has two full-length artificial playing surfaces with lighting, including a 3,000 seat stadium; the Ed Meagher Arena and a gymnasium. The Stinger Dome, an indoor playing field, is open November through April for intramural programming such as flag football, soccer, rugby, Ultimate and many other recreational activities.

Campus Recreation offers more than 50 activities to choose from, namely through the intramural programming, including basketball, hockey and ball hockey, lacrosse, volleyball, aerobics, dance, and martial arts, among others.

The Loyola Campus facility is the hub of Stingers varsity sports. The varsity programs, split into two levels (Varsity 1 and 2), give more than 300 elite student athletes the opportunity to represent Concordia University at provincial, national and international level competitions. The Stingers (Varsity 1) compete in football, basketball, hockey, women's rugby, and soccer. Concordia supports Varsity 2 Stingers teams competing on various regional and national stages inside and outside of the varsity framework, including baseball, wrestling, men's rugby, and cross-country.

Student athletes benefit from excellent support services, including academic advising and a dedicated study space in the Recreation and Athletics complex on the Loyola Campus. Concordia also offers financial awards to support its student athletes.

Loyola Campus

7200 Sherbrooke St. W., Room: RA 104
514-848-2424, ext. 3858
Fax: 514-848-8637

Stinger Dome

7200 Sherbrooke St. W.
514-848-2424, ext. 8860
stingerdome@concordia.ca

Sir George Williams Campus

1515 St. Catherine St. W., Room: EV S2.202
514-848-2424, ext. 3860
Fax: 514-848-3441

For additional information, see stingers.ca or concordia.ca/campus-life/recreation

18.8 INTERNATIONAL STUDENTS OFFICE

The International Students Office is responsible for providing special programs and services to International students. Services include:

- Information on employment regulations: on campus; off campus; post-graduation; and co-op employment
- Advising and support in the area of cultural adaptation and integration
- Social programming to improve the quality of experience on campus and while living in Montreal

- Orientations, information sessions and workshops supporting the academic, personal growth and development of International students (topics include housing, immigration, cultural adaptation, and health and wellness)
- The ISO Information Bulletin

The Office also oversees the Health Insurance Plan for International Students

Immigration documents and/or passport are required by the Quebec and Canadian governments for each International student studying at Concordia. As such, it is imperative that International students submit these documents as soon as possible upon their arrival (see §19.2 for further details). Documents can be submitted either to the International Students Office or the Birks Student Service Centre or uploaded directly through the Concordia Portal by the student. Visit the International Students Office directly for information regarding the immigration document requirements as well as the application or renewal process.

For details on documentation requirements, health insurance, and other important information, see §19.

Sir George Williams Campus
GM Building, Room: 330
514-848-2424, ext. 3515

concordia.ca/offices/iso

International Students

19.1 ADMISSION REQUIREMENTS

- 19.1.1 Admission Requirements
- 19.1.2 Language Proficiency

19.2 PROCEDURES AND IMMIGRATION DOCUMENTATION REQUIRED FOR THE UNIVERSITY

- 19.2.1 Procedures
- 19.2.2 Studying for Six Months or Less
- 19.2.3 Immigration Documentation Required

19.3 TUITION AND OTHER FEES FOR INTERNATIONAL STUDENTS

19.4 SCHOLARSHIPS, BURSARIES AND LOANS

19.5 INTERNATIONAL STUDENT HEALTH AND ACCIDENT INSURANCE

19.6 WORKING AS PART OF A CO-OP OR INTERNSHIP PROGRAM

Section 19

In this section, International students will find relevant information on admission requirements, immigration regulations, tuition fees, scholarships and bursaries, the health insurance plan, as well as regulations on working in Canada.

The International Students Office (ISO), Student and Enrolment Services, has developed support services to promote the adjustment of International students to life and study in Canada.

It is essential that International students submit their immigration documents and/or passport as soon as possible (see §19.2 for further details). **Documents can be submitted either to the International Students Office or the Birks Student Service Centre or uploaded directly through the Concordia Portal by the student.**

Immigration regulations cited in §19 are valid at the time of this writing. For further information, students should contact the Canadian consulate/embassy in their country.

19.1 ADMISSION REQUIREMENTS

19.1.1 Admission Requirements

Concordia welcomes applications for admission from well-qualified students from other countries. In general, students are expected to have completed the level of education required for university admission in their home country. The school-leaving subjects taken by the candidate should normally be appropriate for the degree program to which application has been made. Some programs have additional requirements, e.g. audition, interview, portfolio. Since entry to many programs is limited, the satisfaction of minimum requirements does not guarantee entry to the University.

Depending on their educational background, applicants are considered for entry to three-year (90 credits) or four-year (120 credits) degree programs. In the case of the BEng, BA (Early Childhood and Elementary Education), BEd (TESL), BSc in Athletic Therapy, and BFA (Specialization in Art Education), the program requires four to five years.

Advanced Level and Advanced Subsidiary Examinations

The minimum admission requirements are two A-level examinations plus three appropriate GCSE/IGCSE examinations.

An average grade of "C" or better in Advanced-level subjects is expected. In the case of certain quota programs where enrolment is limited, candidates will have to present higher grades in order to compete successfully for places at the University. Two appropriate AS (Advanced Subsidiary) Levels may be accepted in lieu of an Advanced Level for the purpose of satisfying the general entrance requirements of the University.

Students who have not written Advanced-level examinations but who have high grades in at least five appropriate GCSE subjects plus one full year of formal schooling beyond the GCSE level in a suitable academic program in a recognized school or college, may be considered for admission to an undergraduate program requiring the completion of 120 credits (four years). In the case of the BEng, BA (Early Childhood and Elementary Education), BEd (TESL), BSc in Athletic Therapy, and BFA (Specialization in Art Education), the program would require four to five years.

United States

High school graduates with strong grades from accredited schools who have followed an academic program designed for university entrance may apply for admission to an undergraduate program requiring the completion of 120 credits (four years). In the case of the BEng, BA (Early Childhood and Elementary Education), BEd (TESL), BSc in Athletic Therapy, and BFA (Specialization in Art Education), the program requires four to five years. A General Education Diploma (GED) is not recognized as meeting the requirements for admission to a degree program.

Applicants are required to have a better-than-average school record. While no set pattern of courses in high school is required, all applicants are expected to have taken four units of English. Those applying for admission to Science or Engineering must include three or four units in mathematics and two in the sciences. At least three units of appropriate mathematics are recommended for admission to the John Molson School of Business.

Although not required for admission, letters of recommendation from school guidance counsellors and the results of aptitude and achievement tests (SAT, ACT) are helpful additions to an application.

Students who have passed Advanced Placement examinations in appropriate subjects with a grade of "3" or better may be awarded transfer credits.

France

Students who have completed the requirements for the Baccalauréat with satisfactory results may be considered for admission to an undergraduate program requiring the completion of 90 credits (three years), or 120 credits (four years) for the BA (Early Childhood and Elementary Education), BEd (TESL), BSc in Athletic Therapy, and BFA (Specialization in Art Education).

The number of credits required for the BEng varies according to the option chosen and to the previous preparation of the student, but is usually no fewer than 119.

In cases where the Baccalauréat specialization (*serie*) followed does not fully satisfy the entrance course requirements for the degree program sought, the student, if admitted, will have to include the designated prerequisites as part of the first-year program. In some instances, the prerequisites must be taken in addition to the undergraduate program.

International Baccalaureate

Candidates who complete the full IB Diploma and who obtain a minimum total of 26 points, may be considered for admission to the three-year (90 credits) programs of study (four years of study in the BEng, BA [Early Childhood and Elementary Education], BEd [TESL], BSc in Athletic Therapy, and BFA [Specialization in Art Education]). Minimum scores in prerequisite subjects as well as a higher overall average may be required for competitive programs. Students who have not completed the full IB Diploma program but have IB Certificates in individual Higher Level subjects may be eligible for credit.

Other Countries

Candidates applying from other countries who have completed the level of education required for university admission in their home country will be considered for admission provided that better-than-average grades have been attained. In most cases, a specific minimum overall standard is required. More specific information with respect to admission requirements can be found by visiting the University's website: concordia.ca.

Transfers from Post-Secondary Institutions

Transfers from post-secondary institutions are referred to §13.3.4.

19.1.2 Language Proficiency

The language of instruction at Concordia University is English. For information regarding the language proficiency requirement, refer to §13.4.

19.2 PROCEDURES AND IMMIGRATION DOCUMENTATION REQUIRED FOR THE UNIVERSITY

19.2.1 Procedures

All persons, other than Canadian citizens and landed immigrants, who wish to pursue their studies in the province of Quebec, must obtain a **Quebec Acceptance Certificate (CAQ)** and a **Study Permit**.

For further information on Immigration Quebec, see the following link:
immigration-quebec.gouv.qc.ca/en/immigrate-settle/students/index.html

For further information on Immigration Canada, see the following link:
cic.gc.ca/english/study/study.asp

19.2.2 Studying for Six Months or Less

Students whose program of study is six months or less in duration have the option of studying in Canada without having to apply for a **CAQ** or **Study Permit** provided they complete their studies within the authorized period of their stay in Canada.

Regulation 188(1) of the Immigration and Refugee Protection Regulations reads as follows:

A foreign national may study in Canada without a study permit;

c) if the duration of their course or program of studies is six months or less and will be completed within the period for their stay authorized upon entry into Canada.

Most refugee claimants cannot take advantage of the exemption from the required Study Permit. For further information on the Study Permit requirements for refugees and protected persons, see the following link:
cic.gc.ca/english/resources/tools/temp/students/protected.asp

19.2.3 Immigration Documentation Required

International students who will be studying in a program for six months or more are required to provide a copy of their CAQ and Study Permit to the International Students Office when they first register at Concordia and thereafter every time they renew their immigration documents.

International students who will be studying for six months or less are required to submit copies of their passport pages showing the passport number, the dates of issuance and expiry, name and date of birth, and the stamp made by Canadian authorities on their most recent entry into Canada.

These directives are in accordance with the funding regulations of the Ministère de l'Éducation et de l'Enseignement supérieur which requires that all International students registered at a university in Quebec have in their permanent file a copy of their **Quebec Acceptance Certificate**, their **Study Permit**, proof of valid health insurance (see §19.5) and, for persons studying six months or less, a copy of the appropriate passport pages.

International students are required to provide the appropriate documentation before the DNE deadline of their first term at Concordia and thereafter every time they renew their immigration documents.

Failure to comply with this regulation could result in the cancellation of the student's registration.

19.3 TUITION AND OTHER FEES FOR INTERNATIONAL STUDENTS

The University reserves the right to modify the published scale of tuition and other student fees without prior notice.

The fees, payable to the University for the regular session of two terms commencing in September and concluding in April, range from \$24,358 to \$29,248 for a full-time student. This amount includes tuition fees for 30 credits; compulsory fees which include student services, recreation and athletics, technology infrastructure, copyright and association and activity fees; administration fee; registration fees; and the health insurance premium. This estimate does not include the cost of textbooks or living expenses. Please refer to the Tuition and Fees website at concordia.ca/admissions/tuition-and-fees for information concerning the payment of tuition and fees.

Exemptions from Differential Fees

Certain International students may be eligible to pay the same fees as **Quebec residents or Canadian citizens**. Students who qualify for an exemption from the differential fees for International students, pay tuition and other fees at the same rate as the Canadian, Quebec resident student (including tuition and compulsory fees for 30 credits, and the International students health insurance fee).

The following are among those exempted from paying differential fees who may pay the Quebec tuition rate:

- diplomats, consular personnel, accredited representatives or civil servants of a foreign country, the United Nations or one of its organizations, an intergovernmental organization to which Canada belongs, and any member of the staff of the above-listed persons who are working in Canada in an official capacity and who have obtained an attestation issued by "le Protocole" (Gouvernement du Québec), 525 René-Lévesque E., Quebec City, telephone: 418-649-2346. This attestation is valid for one academic year and must be renewed each year the student attends university;
- the spouse and unmarried children of the above-listed persons;
- an International student whose spouse or parents hold certain work categories of work permits in Quebec. For further details and verification, please contact Quebec.residency@concordia.ca.
- a student who is registered at a university and who has come to Quebec as an exchange student, or as a student participating in a program of co-operation agreed to by the Government of Quebec and which exempts the participants from paying differential fees;
- a student who is admitted to a Quebec university and whose country has a fee remission agreement with the Government of Quebec. The Government of Quebec has agreements for granting a **limited** number of exemptions from the differential fees for International students from the following countries:

Algeria, Belgium (Flanders), Benin, Brazil, Burkina Faso, Burundi, Cameroon, China (graduate students), Colombia, Congo, Democratic Republic of the Congo, Egypt, Francophone University Agency, Gabon, Germany, Germany (Bavaria), Guinea, Haiti, Israel, Italy, Ivory Coast, Korea, Lebanon, Luxembourg, Madagascar, Mali, Mauritania, Mauritius, Mexico, Morocco, Niger, Peru, Rwanda, Senegal, Spain (Catalonia), Togo, Tunisia, and Vietnam.

Inquiries and applications for an exemption should be made directly to the students' own Ministry of Education prior to leaving their home country. In some cases, when the person is in Canada, it may be possible to apply for an exemption at his or her embassy or consulate in Canada or in the United States;

- Graduate students who are French citizens or francophone citizens of Belgium (Wallonia);
- a student who is registered at a university and whose status as a permanent resident has been officially recognized by Immigration Canada. Should a student receive permanent resident status during the academic year, he or she should immediately present the official document to the Office of the Registrar, Room LB 185, to have his or her status changed and to inquire about a possible refund. For more information on refund policies and deadlines for submission of documents, please contact the Office of the Registrar. International students should present themselves at the International Students Office, GM Building, Room: 330, to request an exemption and possible refund from the International Student Health and Accident Insurance Plan;
- under certain conditions, students who have obtained Convention refugee status may be eligible for an exemption from the differential fees for International students. Depending on the documentation submitted, they may be eligible to pay either the Quebec tuition rate or the Canadian non-Quebec rate. For information on deadlines for submission of documentation and on the specific documents required, please contact the Office of the Registrar;
- under certain conditions, International students holding certain categories of CSQ who are allowed to apply for permanent resident status from **within** Canada may be eligible to pay the Quebec tuition rate.

The following are exempted from paying differential fees and may pay the Canadian tuition rate:

- undergraduate students who are citizens of France (accord France-Québec) or francophone citizens of Belgium (Wallonia) and a limited number of undergraduate international students from China (entente Chine-Québec).

19.4 SCHOLARSHIPS, BURSARIES AND LOANS

Undergraduate Scholarships and Bursaries

Two types of awards are available to undergraduate students through the Financial Aid and Awards Office: scholarships and bursaries.

Entrance scholarships and entrance bursaries are available to newly admitted students entering university programs for the first time. In-course scholarships and in-course bursaries are available to returning students who have completed at least one year of

studies at Concordia University. Scholarships are awarded on the basis of scholastic achievement and in some cases, consideration is given to the involvement in university life or other non-academic criteria. Bursaries are awarded based on financial need and acceptable academic standing, and sometimes additional criteria may apply. Students receiving tuition waivers from the University are not eligible to apply for entrance or in-course bursaries. For additional information on all undergraduate awards, consult the Financial Aid and Awards Office website.

U.S. Federal Student Aid

Concordia is recognized as a Title IV eligible foreign school by the U.S. Department of Education. American students studying at Concordia may be eligible for Federal Student Aid (FSA) (full time: 12 credits or more or half time: 6 credits or more) in the form of a Direct Loan from the U.S. Department of Education. For further information on eligibility requirements and how to apply to the FSA program, consult the Financial Aid and Awards Office website.

U.S. Department of Veteran Affairs

Concordia is recognized as an eligible foreign school by the U.S. Department of Veteran Affairs. The Financial Aid and Awards Office helps students work with the U.S. Department of Veteran Affairs in order to pursue studies at Concordia. Students should contact FAAO early so that it can guide them through the process. If they are newly admitted students, their first step is to make sure they have their Certificate of Eligibility and their program is eligible for funding.

Exemption from Higher Tuition Fees

The Government of Quebec has agreements for granting a limited number of exemptions from differential fees for International students from specific countries. Consult §19.3 for the list of countries and information.

Other Awards

Information on scholarships for International students from the Government of Canada can be found on the Department of Foreign Affairs, Trade and Development's website: scholarships.gc.ca. Students are also encouraged to check with their home government for funding opportunities.

Emergency Loans

Funds are available at the International Students Office for short-term emergency loans. Loans are issued to full-time undergraduate and graduate students who need temporary emergency financial assistance. For further information on eligibility requirements and conditions, contact the coordinator, International Students Office, Room: GM 330, 514-848-2424, ext. 3514.

19.5 INTERNATIONAL STUDENT HEALTH AND ACCIDENT INSURANCE

Immigration Quebec services and the Ministère de l'Éducation et de l'Enseignement supérieur require that all International students be covered by a health insurance plan while studying and living in Quebec. To this end, Concordia University has negotiated a **compulsory** health and accident insurance plan for its International students. Health insurance fees are charged automatically when International students register for courses.

Check the International Students Office website at concordia.ca/offices/iso for the cost of coverage. Coverage is from September 1 until August 31 of the following year. Students who register in January pay a pro-rated premium for the eight-month period from January 1 until August 31 of the same year.

Only certain categories of International students are permitted to opt out of the Concordia Health Insurance Plan for International Students. These categories are listed below. Please note that Concordia University does not accept any other health insurance plan that the student might be carrying or maintaining while coming to Canada.

1. Students who have a valid Quebec Medicare card / *Carte d'assurance maladie du Québec* (RAMQ). Please note that students who are eligible for RAMQ coverage are **not** covered by the Concordia Health Insurance Plan for International Students regardless of when students submit the documents to the University.
2. As a result of intergovernmental agreements, full-time students from **Belgium, Denmark, Finland, France, Greece, Luxembourg, Norway, Portugal, and Sweden** who were covered under their government's medical system before their arrival in Quebec, may be eligible for the Quebec medical benefits (called Quebec Medicare card or *Carte d'assurance maladie du Québec*). These students must apply for the Quebec Medicare card. Further information is available at the International Students Office.
3. International students who receive a sponsorship (including group health insurance and tuition fees) from a sponsoring organization or government (such as CIDA, ICCS, CBIE, WUSC) must ensure that their sponsorship letter clearly mentions the group health insurance coverage as well as the duration of the policy. Please note that private health insurance plans are not accepted.
4. Refugee claimants and Convention refugees who can show proof of medical coverage by the Canadian or Quebec Government.
5. International students who become permanent residents of Canada. An exemption/adjustment will be based on the date the International Students Office receives the Record of Landing document.

Proof of above-mentioned insurance is required in order to process an exemption. It must be presented in English or French indicating the period and amount of coverage available in Canada. This information is required by the Ministère de l'Éducation et de l'Enseignement supérieur and must be in the Concordia student's file for audits and reports. Applications for exemptions are processed in person at the International Students Office (ISO), GM Building, Room: 330. Applications must be processed every year.

Adjustments or cancellations will be based on the date the ISO receives a copy of the above-mentioned supporting documentation. Insurance plans are based on a monthly rate from the first day of the month to the last day of the month. As such, and in order for the student to obtain the fullest refund, the request for adjustments or cancellations should be made prior to the first day of the month.

Retroactive adjustments will only be considered and provided where supporting documents can prove that health insurance coverage has been maintained continuously from the beginning of the required insurance period. Where the supporting documents do not indicate health insurance coverage, the monthly fee charged will not be refunded. If a student has filed an insurance claim, the student can only receive a retroactive refund for the period (months) following the claim. Refunds are provided in the form of credit to the student's university account.

19.6 WORKING AS PART OF A CO-OP OR INTERNSHIP PROGRAM

Some academic programs require that students complete a work term(s) in order to complete the degree requirements. International students who are enrolled in such programs **must** apply for a Co-op *Work Permit*. For further information, refer to: cic.gc.ca/English/study/work-coop.asp or visit the GM Building, Room: 330.

Student Associations and Alumni Relations

20.1 UNDERGRADUATE STUDENTS

20.2 GRADUATE STUDENTS

20.3 ALUMNI RELATIONS

Section 20

20.1 UNDERGRADUATE STUDENTS

The **Concordia Student Union (CSU)** represents all undergraduate students, both full-time and part-time. Besides organizing many events and activities, the CSU ensures student representation on University decision-making bodies, both those that legislate on academic and administrative matters and those concerned with the cultural and social life of the community. There are student members of the Board of Governors, Senate, the Faculty Councils, and the Concordia Council on Student Life, which is directly concerned with all issues pertaining to student life including the provision of student services. The CSU also offers services for its members such as a Housing and Job Bank, Legal Information Clinic, Advocacy Centre, free lunch program at Loyola, and student daycare service. There is a CSU office on each campus. The Sir George Williams office is in Room H 711 of the Henry F. Hall Building. The Loyola office is in the CC Building, Room 426. CSU's telephone number is 514-848-7474; email: contactus@csu.qc.ca; website: csu.qc.ca.

Powers and responsibilities are divided between three bodies: the Executive, the Council of Representatives, and the Judicial Board. The Executive is headed by an elected general coordinator. The Council of Representatives consists of students elected from the undergraduate student population with seats reserved for the four Faculties and Independent students. The Judicial Board is an appointed body charged with assuring the constitutionality of any new legislation or resolution of conflicts.

Students in the four Faculties are also represented by their own associations: the **Arts and Science Federation of Associations (ASFA)**, the **Commerce and Administration Students' Association (CASA)**, the **Engineering and Computer Science Students' Association (ECA)**, and the **Fine Arts Student Alliance (FASA)**.

There are over 230 student groups. They may be associated with a department or discipline, such as the Psychology Students' Association, or pursue a special interest like the Concordia Ski and Snowboard Club or the African Student Association. Each has its own program of activities funded by student fees. In addition, there are a number of independent groups on campus that provide a variety of ways for students to engage in campus and community life such as Sustainable Concordia and the Concordia Food Coalition. Amongst these are student media including the radio station *CJLO* and two student newspapers, *The Link* and *The Concordian*. These media outlets operate independently of the student associations. Both newspapers are incorporated, with separate, wholly autonomous Boards of Directors.

20.2 GRADUATE STUDENTS

All graduate students are members of the Graduate Students' Association (GSA). The GSA is concerned with graduate student representation on the Board of Governors, Senate, the School of Graduate Studies, the Faculty Councils, and the Concordia Council on Student Life, and initiates a wide range of activities for graduate students and the University community as a whole, including social occasions and lectures. GSA's offices are at 2030 Mackay St.; telephone: 514-848-2424, ext. 7900; email: info@gsaconcordia.ca; website: gsaconcordia.ca.

20.3 ALUMNI RELATIONS

Concordia boasts 215,000 alumni worldwide. University Advancement (UA) is charged with maintaining and nurturing a lasting and significant relationship between alumni and their alma mater.

The **Concordia University Alumni Association (CUAA)** was created in 1983 to "encourage the fellowship of graduates from Loyola, Sir George Williams, and Concordia University through social, educational, and cultural activities" and to "preserve and promote the interests of Concordia University through alumni involvement in its future and governance." Graduates and attendees (who have completed 30 credits) of Concordia and of the founding institutions of Loyola College and Sir George Williams University are automatically CUAA members.

Benefits and Services – Current Students: University Advancement collaborates with the CUAA to offer students and alumni various programs and services. Starting even before they arrive on campus, students can take advantage of numerous services, events, and activities, including funding for student projects, professional development workshops, speaker series and career panels. Alumni Relations partners with colleagues on campus to welcome and recognize new students and their families during Orientation and Residence Move In at the Parents Tent; highlight and showcase diverse student leaders, and provide opportunities for alumni to interact with students on campus.

Benefits and Services – Alumni: With a complimentary Alumni ID card, alumni gain access to Concordia libraries, career services resources and discounts on fees at the Centre for Continuing Education. Alumni are also eligible for discounts at preferred hotels, Budget Rent-A-Car, VIA Rail, Tremblant-GolfMax, the Centaur Theatre, the Segal Centre for Performing Arts, the University of Toronto Library, the Princeton Review, Concordia Stores, the VA Art Supply Store, Nautilus Plus and Campus Recreation. Alumni receive the *Concordia University Magazine* and *Accent*, the monthly alumni e-newsletter. They can obtain the Concordia University MBNA MasterCard, reduced rates on home and auto insurance with TD Insurance Meloche Monnex, and reduced rates on health and dental insurance with Manulife Financial. Advancement and Alumni Relations also offers photography services at gowning and convocation through affinity partners, GradImages and Lassman.

Events: Year round, UA hosts a vast selection of social, cultural and educational events for the Concordia community. Students, alumni, faculty, staff, and friends are always invited to participate in Homecoming, a series of activities including reunions, chapter and networking events, career educational lectures/seminars, panel discussions and the Homecoming Football Game. The annual Alumni Recognition Awards Banquet honours outstanding volunteer contributions from the University's alumni, faculty, staff, students, and friends.

Staying Connected: After convocation, keep in touch with fellow alumni and the University online via social media groups on LinkedIn and Facebook. The Alumni Relations Twitter and Instagram accounts (@ConcordiaAlumni) serve up daily news about alumni and their alma mater.

Alumni Chapters

Canadian and International Chapters: There are active alumni groups in Beijing, Boston, Calgary, California, Dubai, Edmonton, Hong Kong, India, Japan, Jordan, London, Mexico, Mississauga, Netherlands, New York, North Carolina, Ottawa, Qatar, Shanghai, Texas, Toronto, Turkey, Vancouver, Washington, D.C., Washington State and Winnipeg.

Montreal Chapters: There are Faculty-based chapters for the Gina Cody School of Engineering and Computer Science and the John Molson School of Business, in addition to alumni volunteer opportunities in the Faculty of Fine Arts and the Faculty of Arts and Science.

For the latest information on alumni chapters, benefits, and events, visit concordia.ca/alumni-friends or contact University Advancement, 1250 Guy St., Room FB 520, 514-848-2424, ext. 4856, fax: 514-848-2826, or email: alumni@concordia.ca.

Centre for Continuing Education

Section 21

Associate Vice-President, Lifelong Learning, and Executive Director, Concordia Continuing Education
ISABEL DUNNIGAN
514-848-2424, ext. 3639

Director, Administration
ARIANE CLOUTIER
514-848-2424, ext. 3603

Director, Marketing and Business Development
CATHERINE VIGEANT
514-848-2424, ext. 3606

Director, Programs
SHERRY BLOK
514-848-2424, ext. 4312

Location

Sir George Williams Campus
Faubourg Tower
1600 St. Catherine St. W., Room: FB 117
514-848-2424, ext. 3600

As part of its commitment to the lifelong pursuit of education, Concordia University, through its Centre for Continuing Education, offers a variety of non-credit educational programs. These are designed to meet the practical needs and interests of people in the workplace, helping them to refine and improve their professional and personal skills.

Students may choose individual courses or a program series to earn diplomas or certificates in a particular area of specialization. Acceptance to any of the Centre for Continuing Education's programs does not guarantee admission to, or credit towards, any of the University's degree programs.

For the most up-to-date Continuing Education programs, courses, workshops, and professional and customized development offerings, please go to concordia.ca/cce.

Teacher Training and Teacher Certification

23.1 INTRODUCTION

23.2 ELIGIBILITY/ADMISSIONS REQUIREMENTS

23.3 APPLICATION FOR ADMISSION AND CERTIFICATION

23.4 CITIZENSHIP REQUIREMENTS

23.5 ASSISTANCE

Section 23

Teacher Training and Teacher Certification:

Roma Medwid
Executive Director
Concordia Teacher Education Council

Mailing Address:
Office of the Provost and Vice-President, Academic
Concordia University
1455 De Maisonneuve Blvd. W.
Room S-GM 806
Montreal, Quebec H3G 1M8
514-848-2424, ext. 8725

23.1 INTRODUCTION

The Ministère de l'Éducation et de l'Enseignement supérieur (MEES) certifies teachers for the primary and secondary schools of the province, following completion of an approved 120-credit program. This certification is also subject to legislative provisions on judicial antecedents and satisfying the requirements of a MEES-approved test of English language proficiency. The MEES recognizes Concordia University as a centre for teacher training. Concordia offers three MEES-approved programs that grant teaching licences (*brevets d'enseignement*). Because Concordia University has chosen not to organize its teacher training programs into a single Faculty, the programs are listed under different Faculties and departments. Students interested in pursuing teacher training and certification are asked to consult with the appropriate Faculties and academic departments for further information. These are:

Faculty of Arts and Science

Department of Education (See §31.090 and §31.090.1)

- Bachelor of Arts (BA), Specialization in Early Childhood and Elementary Education (120 credits)
- Bachelor of Education (BEd), Specialization in Teaching English as a Second Language (120 credits)

Faculty of Fine Arts

Department of Art Education (See §81.40)

- Bachelor of Fine Arts (BFA), Specialization in Art Education – Visual Arts (120 credits)

Concordia offers other certificate and diploma programs. Please refer to the Undergraduate Calendar for certificate programs, and the School of Graduate Studies Calendar for diploma and graduate certificate programs.

23.2 ELIGIBILITY/ADMISSIONS REQUIREMENTS

It is important to review the admissions regulations (see §13.3) and residency requirements (see §16.2.2) for eligibility in the MEES-approved programs.

23.3 APPLICATION FOR ADMISSION AND CERTIFICATION

Admission

Applicants apply online for admission. In addition, a separate department application form is required for the BA Specialization in Early Childhood and Elementary Education and for the BEd Specialization in Teaching English as a Second Language. These application forms should be downloaded from the Department of Education's website: concordia.ca/artscli/education.

Applicants for Art Education should consult §81.40.1 Admission to the Specialization, Major, and Minor in Art Education – Visual Arts.

Certification

Prior to graduation, forms to apply for teacher certification are available from the Office of the Registrar.

23.4 CITIZENSHIP REQUIREMENTS

Permanent teacher certification in Quebec is only available for Canadian citizens and students who have landed immigrant status or who hold an appropriate work permit in accordance with Immigration Law of Quebec (L.R.Q., I-0.2).

23.5 ASSISTANCE

Graduates of Concordia University with certification problems should contact:
Direction de la formation et de la titularisation du personnel scolaire
Ministère de l'Éducation et de l'Enseignement supérieur
1035, rue de la Chevrotière, 28^e étage
Québec (Québec) G1R 5A5
Telephone: 418-643-2948 Fax: 418-643-2149

Institute for Co-operative Education

Section 24

Director
CLAUDE MARTEL

Associate Director
JULIE FOISY

The University through the Institute for Co-operative Education offers a variety of structured work-integrated learning programs in a number of departments across all Faculties. Please visit the website for a complete list of programs: concordia.ca/academics/co-op/programs.

The Co-op Philosophy

Co-operative education is a structured educational strategy integrating academic studies with learning through program-relevant work experiences. It provides progressive experiences in integrating theory and practice, giving students the opportunity to transfer knowledge and skills between work and classroom settings.

Advantages of a Co-op Education

Integrating theory and practice in a structured and purposeful manner allows students to come to terms with the realities of professional practice in a way that allows for the development of self-confidence, self-reliance, and self-motivation. Co-operative education provides an opportunity to gain practical experience in a chosen field. With the help of the Institute for Co-operative Education, students enhance their technical knowledge and interpersonal skills through practical experience and through participation in professional seminars, workshops, and other activities.

The collaboration between employers and faculty is mutually beneficial, providing an opportunity for employers to contribute to, and influence, the educational process, and for the faculty to become aware of the latest developments in industry. In some cases joint industry-university research projects result.

Admission to Co-op

Admission to co-op is selective, primarily based on academic performance, and may include prerequisite courses and other factors such as extracurricular activities, communication skills, motivation, personality, and drive. Applicants must be legally eligible to work in Canada. International students are required to obtain a Canadian work permit.

Students applying to co-op should complete the appropriate section on the University Admissions form. Please refer to concordia.ca/academics/co-op for program, application, and admission details.

The final decision to accept or reject an applicant rests with the Director, Institute for Co-operative Education.

Co-op Fee

Students should note that a co-op fee exists to cover in part the administrative costs particular to the co-op program. The fee is charged for eight consecutive terms. Students requiring fewer than the normal number of terms to complete their programs in the co-op format are subject to the same total fee as those requiring the normal number of terms.

The payment of the co-op fee is spread over a number of terms (fall term, winter term, and summer session). The number of terms and the level of the fee depend on the student's year of entry to the co-op program. Please refer to the Institute website (concordia.ca/academics/co-op/students/fees) for detailed fee information.

- For students admitted to a co-op program in their first year, the co-op fee is payable in each of the first eight terms (fall term, winter term, or summer session) in which the student either enrols in any number of courses or is on a work term, after which no further co-op fees will be payable.
- For students admitted to a co-op program after their first year, the co-op fee is levied at a somewhat higher level, but is payable in each of the first six terms (fall term, winter term, or summer session) in which the student either enrols in any number of courses or is on a work term, after which no further co-op fees will be payable.

Co-op fees are not refundable. However, should a student withdraw from co-op, no future fees will be charged. The payment of the co-op fees follows the same deadlines as the deadline for the payment of tuition fees. For specific deadlines, visit concordia.ca/admissions/tuition-fees/fee-payment-deadlines.

Co-op Performance Requirements

Students permitted to undertake their studies in the co-op format enrol full-time as regular undergraduates and are subject to their program's academic regulations. However, higher performance standards are often required to continue in the co-op format.

Students registered in the co-op program are required to maintain a minimum cumulative GPA of 2.50 to continue in the co-op program. A faculty or department may require a higher GPA and may have additional requirements to continue in the co-op program. Students are advised to consult with the co-op academic director of their program for the specific requirements of their program or if they wish to apply to a co-op program after their initial admission.

The work-term evaluation consists of two components:

1. student work-term performance as evaluated by the Director of the Institute for Co-operative Education or delegate, with input from the employer;
2. the work-term report or communications component and presentation evaluated by faculty, the Director of the Institute for Co-operative Education or delegate.

Each component is evaluated separately. Students must successfully complete all required components to pass the work term which is marked on a pass/fail basis.

A failing grade for the work term or failure to meet the co-op academic requirements will normally result in the dismissal of the student from the Institute for Co-operative Education.

A student may be exempted from any work-term requirements if he or she submits medical and/or other evidence to support such exemption to the Director of the Institute for Co-operative Education.

Work Term

Co-operative education at Concordia is not to be construed as a placement operation or an inexpensive labour apprenticeship. The work term is an essential part of the student's learning experience and there is to be equitable remuneration paid for work performed. A co-op coordinator or participating faculty member visits the students at their place of work to evaluate the work performance, gauge the learning opportunities, assess the compatibility of student and employer and, if necessary, takes corrective action. The procedures for matching students with employers are managed by the Institute for Co-operative Education. Students must be willing to work anywhere in Canada, and may go abroad for a work term. Students must begin and end their degree with an academic study term. **It should be noted that the University does not guarantee every student a job.**

The work terms are designated as CWT 100, 200, 300, and 400 (Co-op Work Term I, II, III, and IV respectively). An appropriate letter is added to the course code to identify the student's area of study. These work terms carry no credit value and are used to indicate that the student is on a work term.

Reflective Learning Courses

A core feature of co-operative education is integration: there must be integration between work and classroom learning. Numerous ways exist to foster such integration. Reflective discussion is one technique that can be used in integration sessions to encourage students to analyze, compare, and contrast their work-term experiences. Other reflective learning techniques include assignments, seminar presentations, and the keeping of logs, diaries, observation reports, and portfolios.

The CWT 101, 201, 301, and 401 Reflective Learning courses are 3-credit extension courses to the work terms. These courses are marked on a pass/fail basis. They are above and beyond the credit requirements of the student's program and are not transferable nor are they included in the full- or part-time assessment status.

CWT 101 *Reflective Learning I* (3 credits)

Students are enrolled in this course concurrently with their first work term. This is a forum for critically examining the workplace, for reflecting on personal work-term experiences, for building and testing hypotheses, for disciplined inquiry, and for setting goals. Activities provide opportunities for students to connect their work-term experiences to their related courses.

CWT 201 *Reflective Learning II* (3 credits)

Students are enrolled in this course concurrently with their second work term. Using one or more of the techniques listed in CWT 101, this course expands on students' second work-term experiences in their related field of study to further develop their knowledge and work-related skills.

CWT 301 *Reflective Learning III* (3 credits)

Students are enrolled in this course concurrently with their third work term. Using one or more of the techniques listed in CWT 101, this course expands on students' third work-term experiences in their related field of study to further develop their knowledge and work-related skills.

CWT 401 *Reflective Learning IV* (3 credits)

Students are enrolled in this course concurrently with their fourth work term. Using one or more of the techniques listed in CWT 101, this course expands on students' fourth work-term experiences in their related field of study to further develop their knowledge and work-related skills.

UNDERGRADUATE PROGRAMS

Please see the following Faculty sections of the Undergraduate Calendar for a list of co-op programs by Faculty, and Faculty-level requirements:

Arts and Science: §31.515

John Molson School of Business: §61.25

Gina Cody School of Engineering and Computer Science: §71.10.8

Fine Arts: §81.10

For a complete list of current undergraduate co-op programs, sequence of work and study terms, and contact information, please refer to the website: concordia.ca/academics/co-op.

C.EDGE (CAREER EDGE) OPTION

Following the philosophy of co-operative education, the University, through the Institute for Co-operative Education, offers the C.Edge option to all undergraduate students in programs that offer it.

The work term for the C.Edge option runs for a minimum of 12 consecutive weeks. Work during this period is full-time, and students are paid by the employer at competitive rates. Following completion of the work term, students may be required to return to the University to complete the remaining courses for their undergraduate degree. It is not possible to guarantee that all students wishing to participate in a C.Edge option work term will be able to do so.

Admission Requirements

Students in all programs who have a minimum cumulative GPA of 2.50 are eligible to apply for the C.Edge option if their program offers it. Some departments may have a different requirement to be accepted into and remain in the option. Please check with the co-op academic director of the respective program for more details.

Work Terms

Students in the C.Edge option may complete one or two work terms. For each work term, students are registered in their work experience courses. As with the co-op option, students are considered full-time students at the University during their work terms. For each work term, all students must complete a work-term report reviewed and graded by the co-op academic director. Students must also submit an Employer's Evaluation completed by their job-site supervisor. Work experience courses are assigned no academic credits, and students receive a grade of pass or fail.

The work-term evaluation consists of two components:

1. the student's work-term performance as evaluated by the Director of the Institute for Co-operative Education or delegate, with input from the employer;
2. the work-term report or communications component and presentation, as evaluated by the co-op academic director and the Director of the Institute for Co-operative Education or delegate.

Each component is evaluated separately. Students must successfully complete all required components to pass the work term which is marked on a pass/fail basis. A failing grade for the work term or failure to meet the co-op academic requirements will normally result in the dismissal of the student from the Institute for Co-operative Education.

Reflective Learning Courses

Like co-op students, all C.Edge students are enrolled in Reflective Learning courses concurrently with their work term. They are each 3-credit extension courses connected to the work term and are above and beyond the credit requirements of the students' academic program. The credits earned from the Reflective Learning courses are not transferable, nor are they included in the assessment of full- or part-time status. They are graded on a pass/fail basis.

Fees

Students should note that a fee exists to cover in part the costs particular to the C.Edge option. The fees are not refundable. However, should a student withdraw from the C.Edge option, no future fees will be charged. The payment of the fees follows the same deadlines as the deadline for the payment of tuition fees. For specific deadlines, visit concordia.ca/admissions/tuition-fees/fee-payment-deadlines.

The payment of the fee is spread over a number of terms (fall term, winter term, and summer session). The number of terms and the level of the fee depend on the student's year of entry and completion of the program. Please refer to the Institute website (concordia.ca/academics/co-op/students/fees) for detailed fee information.

Detailed information about the C.Edge option is available from the Institute for Co-operative Education.

ACCELERATED CAREER EXPERIENCE OPTION

Following the philosophy of co-operative education, the University, through the Institute for Co-operative Education, offers Accelerated Career Experience to all undergraduate students in Faculties and programs that offer it.

The work term for the Accelerated Career Experience option runs for a minimum of 12 and a maximum of 16 consecutive months. Work during this period is full-time, and students are paid by the employer at competitive rates. Following completion of the 12- to 16-month work term, students return to the University to complete the remaining courses for their undergraduate degree. It is not possible to guarantee that all students wishing to participate in an Accelerated Career Experience work term will be able to do so.

Admission Requirements

Students in all programs who have a minimum cumulative GPA of 2.70 are eligible to apply for the Accelerated Career Experience option if their program offers it. Specific eligibility criteria and admission information can be found on the website concordia.ca/academics/co-op, and Faculty-level requirements in the Faculty sections of the Calendar (Gina Cody School of Engineering and Computer Science: §71.10.8; John Molson School of Business: §61.25). Some employers may have additional requirements to apply to a position.

Work Terms

Students in the Accelerated Career Experience option may complete one 12- or 16-month work term. Students are registered in their work experience courses (ACCE 100, 200, 300, 400) and are considered to be full-time students during enrolment in these courses. For the 12- or 16-month work term, all students must complete a work-term report reviewed and graded by the co-op academic director. Students must also submit an Employer's Evaluation completed by their job-site supervisor.

The work-term evaluation consists of three components:

1. the student's work-term performance as evaluated by the Director of the Institute for Co-operative Education or delegate, with input from the employer;
2. the work-term report component as evaluated by the co-op academic director and the Director of the Institute for Co-operative Education or delegate;
3. the work-term presentation component as evaluated by the job-site supervisor and a group representing the management or executive of the hosting organization.

Some employers may have additional requirements to evaluate the student on a work term.

Each component is evaluated separately. Students must successfully complete all required components to pass the work term which is marked on a pass/fail basis. A failing grade for the work term or failure to meet the Accelerated Career Experience academic requirements will normally result in the dismissal of the student from the Institute for Co-operative Education.

Fees

Students should note that a fee exists to cover in part the costs particular to the Accelerated Career Experience option.

Accelerated Career Experience students pay fees for the three or four terms of the 12- to 16-month work term. Please refer to the Institute website (concordia.ca/academics/co-op/students/fees) for detailed fee information. The fees are not refundable. However, should a student withdraw from the Accelerated Career Experience option, no future fees will be charged.

The payment of the fees follows the same deadlines as the deadline for the payment of tuition fees. For specific deadlines, visit concordia.ca/admissions/tuition-fees/fee-payment-deadlines.

Detailed information about the Accelerated Career Experience option is available from the Institute for Co-operative Education.

Convocation Medals and Prizes

25.1 GOVERNOR GENERAL'S AWARD

25.2 UNIVERSITY AWARDS

25.3 FACULTY AWARDS

25.3.1 Faculty of Arts and Science

25.3.2 John Molson School of Business

25.3.3 Gina Cody School of Engineering and Computer Science

25.3.4 Faculty of Fine Arts

25.4 SPECIAL AWARDS

Section 25

25.1 GOVERNOR GENERAL'S AWARD

The Governor General's Silver Medal: Conferred by Her Excellency, the Governor General of Canada, and awarded to the highest ranking undergraduate student graduating from Concordia University.

25.2 UNIVERSITY AWARDS

The final graduation GPA is used as the basis to determine the highest ranking student.

The Rytza Tobias Memorial Medal: Presented by the Tobias Family, and awarded to the highest ranking student graduating with a BA degree.

The Anne Stokes Medal: Awarded to the highest ranking student graduating with a BEd degree in Teaching English as a Second Language.

The Mappin Medal: Donated by the Mappin Family, and awarded to the highest ranking student graduating with a BSc degree.

The Administration Medal: Awarded to the highest ranking student graduating with a BAdmin degree.

The Commerce Medal: Awarded to the highest ranking student graduating with a BComm degree.

The Computer Science Medal: Awarded to the highest ranking student graduating with a BCompSc degree.

The Chait Medal: Awarded to the highest ranking student graduating with a BEng degree.

The Alfred Pinsky Medal: Awarded to the highest ranking student graduating with a BFA degree.

25.3 FACULTY AWARDS

The prizes listed in this section are awarded to the most outstanding graduating student in a department (or unit). Candidates are nominated by the departments or units for consideration and approved by the appropriate Faculty Council and Senate. The departments or units in making their selection may include, in addition to a high grade point average, other criteria such as number and/or level of the courses taken, outstanding results on a project or essay, or a significant contribution to the extra-curricular life of the department. In the Gina Cody School of Engineering and Computer Science, only courses which are part of the degree are used to calculate the GPA and determine the prizewinner.

25.3.1 Faculty of Arts and Science

The Biology Prize

The Chemistry Medal

The Classics Book Prize

The John E. O'Brien, s.j., Medal for Communication Studies

The Economics Prize

The Balbir Sahni Outstanding International Award in Economics

The Education Book Prize

The Medal for English

Le prix Paul d'Hollander pour les Études françaises

The Exercise Science Plaque

The Bogdan Zaborski Medal in Geography

The Martin Lewis Memorial Book Prize in History

The Robert C. Rae Book Prize in Human Relations

The Interdisciplinary Studies Medal

The Gordon Fisher Prize for Journalism

The Randy B. Swedburg Medal for Leisure Sciences and Therapeutic Recreation

The Liberal Arts College Prize

The Eric O'Connor Mathematics Medal

The Modern Languages and Linguistics Plaque

The W.R. Fraser Medal for Philosophy
The Walter Raudorf Medal for Physics
The Renée Vautelet Prize for Political Science
The J.W. Bridges Medal for Psychology
The Boyd Sinyard Prize for Religion
The Vince Sirois Prize (School of Community and Public Affairs)
The Science College Prize
The Everett C. Hughes Medal for Sociology and Anthropology
The Thérèse F. Casgrain Medal for Women's Studies

25.3.2 John Molson School of Business

The Ross Medal for Accountancy
The Finance Medal
The International Business Medal
The Management Medal
The Marketing Medal
The Supply Chain and Business Technology Management Medal

25.3.3 Gina Cody School of Engineering and Computer Science

The Aerospace Engineering Medal
The Building Engineering Medal
The Matthew Douglass Medal for Civil Engineering
The Computer Engineering Medal
The Phoivos Zilogas Medal for Electrical Engineering
The Jaan Saber Medal for Industrial Engineering
The Mechanical Engineering Medal
The Software Engineering Medal

25.3.4 Faculty of Fine Arts

The Art Education Prize
The R. Bella Rabinovitch Art History Prize
The Cinema Prize
The Contemporary Dance Prize
The Computation Arts Prize
The Design Prize
The Lydia Sharman Award
The Music Prize
The Yves Gaucher Prize in Studio Arts
The Betty Goodwin Prize in Studio Arts
The Guido Molinari Prize in Studio Arts
The Gabor Szilasi Prize in Studio Arts
The Irene F. Whittome Prize in Studio Arts
The Theatre Prize

25.4 SPECIAL AWARDS (AWARDS ARE GIVEN ONLY WHEN MERITED)

The Concordia Medal: Presented by the Concordia University Alumni Association to an undergraduate graduating student who has displayed distinctive leadership ability through both academic and non-academic achievements and has won the outstanding commendation of his/her fellows and of the faculty. The award is presented at the Spring Convocation Ceremonies.

The Dean of Students Medal: Presented by the Dean of Students to a graduating student in an undergraduate or graduate program who has demonstrated a high level of engagement in student or community life while overcoming social, physical or intellectual stigma and maintaining academic excellence. The focus of the award is on the accomplishments and not the challenge and is meant to reward a student for having made a difference either within Concordia or in the outside community through involvement in volunteerism or the development of an initiative that addresses a problem within society. The award is presented at the Spring Convocation Ceremonies.

The Malone Medal: Presented in honour of Rev. Patrick G. Malone, S.J., and awarded to the undergraduate graduating student whose efforts and dedication best exemplify the values of the University within the *internal* Concordia community. The award is presented at the Spring Convocation Ceremonies.

The O'Brien Medal: Presented in honour of Dr. J.W. O'Brien and awarded to the undergraduate graduating student whose efforts and dedication best exemplify the values of the University within the larger *external* community. The award is presented at the Spring Convocation Ceremonies.

The Provost's Medal for Outstanding Achievement: Presented by the Office of the Provost and awarded to the undergraduate graduating student whose commitment and spirit towards academic excellence, leadership, athleticism, and civic responsibility reflect the values exemplified by Concordia University and the Office of the Provost. The award is presented at the Spring Convocation Ceremonies.

University Skills

Section 26

Complementary University Credits (CUC)

Complementary University Credits are additional to the Faculty degree and certificate requirements stipulated in the University Undergraduate Calendar. These credits are not assessed in any GPA calculation and are not transferable to any degree or Faculty certificate.

Courses

Complementary University Credit

UNSS 200 *Self-Management Strategies* (1.5 credits)

Prerequisite: Faculty recommendation. Based on the principle of self-efficacy, this course is an introduction to self-management and self-assessment, exploring personal goal setting, time and stress management, mindfulness and motivation. Students gain an in-depth perspective of their individual strengths, develop strategies to deal with personal challenges, and enhance their motivation through exploring career directions. Each student works on an individual project designed to foster self-monitoring and self-reflection within the context of working towards success. A final portfolio compiled by each participant documents individual progress through the term. Successful completion of this pass/fail course depends on excellent attendance and timely completion of all assigned work.

NOTE: This course does not count for credit in any University program.

UNSS 201 *Successful Study Strategies* (1.5 credits)

Prerequisite: UNSS 200 and Faculty recommendation. This course focuses on enhancing each student's potential for academic success through developing strategies for active learning. Students explore techniques to enhance their understanding and retention of course material, including the principles of effective note-taking, active reading, preparing for exams and improving memory and concentration. Students are encouraged to apply these strategies in their other courses; for this reason, it is strongly recommended that this course be taken in conjunction with at least one other course. A final portfolio compiled by each participant demonstrates study strategies applied to discipline-specific coursework and reflects on the student's progress through the term. Successful completion of this pass/fail course depends on excellent attendance and timely completion of all assigned work.

NOTE: This course does not count for credit in any University program.

Complementary University Non-Credit

SKIL 401 *Digital Skills* (0 credit)

This course comprises a series of future-skills workshops where students receive digital skills training relevant to the labour market. Possible topics include Excel, data analytics and visualization, coding, and user design experience. By the end of this course, students will be able to apply newly acquired digital skills to specific workplace activities. This course is marked on a pass/fail basis.

SKIL 402 *Professional Skills* (0 credit)

This course comprises a series of future-skills workshops where students receive professional skills training relevant to the labour market. Possible topics include business financials, business writing, networking, design thinking, project management, and presentation skills. By the end of this course, students will be able to apply newly acquired professional skills to specific workplace activities. This course is marked on a pass/fail basis.

SKIL 403 *Placement Skills* (0 credit)

This course comprises a series of future-skills workshops where students develop the necessary skill sets and documents to secure a work-integrated learning experience. Possible topics include resumés, cover letters, interviewing, negotiating contracts, and finding work in the gig economy. By the end of this course, students will be able to apply newly acquired skills to secure a work-integrated learning experience. This course is marked on a pass/fail basis.

SKIL 404 *Work-Integrated Experience* (0 credit)

Prerequisite: SKIL 401, 402, 403. This course involves completing a work-integrated learning experience directly related to students' skill development. Students are provided guidance and support in preparing for the work-integrated learning experience and identifying a relevant opportunity. The placement coordinator monitors the student during the experience and formally evaluates them, with input from the employer. Students are paid for the work performed. This course is marked on a pass/fail basis.

Faculty of Arts and Science

31.001 FACULTY OF ARTS AND SCIENCE	31.180 JOURNALISM
31.002 PROGRAMS AND ADMISSION REQUIREMENTS	31.200 MATHEMATICS AND STATISTICS
31.003 DEGREE REQUIREMENTS	31.220 PHILOSOPHY
31.004 GENERAL EDUCATION ADULT EDUCATION (<i>See 31.090.2</i>)	31.230 PHYSICS
31.010 APPLIED HUMAN SCIENCES	31.240 POLITICAL SCIENCE
31.030 BIOLOGY	31.250 PSYCHOLOGY RECREATION AND LEISURE STUDIES (<i>See 31.010</i>)
31.050 CHEMISTRY AND BIOCHEMISTRY	31.270 RELIGIONS AND CULTURES
31.060 CLASSICS, MODERN LANGUAGES AND LINGUISTICS	31.310 SOCIOLOGY AND ANTHROPOLOGY SOUTHERN ASIA STUDIES (<i>See 31.270</i>) TEACHING ENGLISH AS A SECOND LANGUAGE (<i>See 31.090.1</i>)
31.070 COMMUNICATION STUDIES	31.330 THEOLOGICAL STUDIES URBAN PLANNING AND URBAN STUDIES (<i>See 31.130.1</i>) WOMEN'S STUDIES (<i>See 31.560</i>)
31.080 ECONOMICS	31.515 CO-OPERATIVE EDUCATION
31.090 EDUCATION	31.520 LIBERAL ARTS COLLEGE
31.100 ENGLISH ENGLISH AS A SECOND LANGUAGE (<i>See 31.090.1</i>)	31.525 LOYOLA COLLEGE FOR DIVERSITY AND SUSTAINABILITY
31.110 ÉTUDES FRANÇAISES	31.530 SCHOOL OF IRISH STUDIES
31.120 HEALTH, KINESIOLOGY, AND APPLIED PHYSIOLOGY	31.540 SCHOOL OF COMMUNITY AND PUBLIC AFFAIRS
31.130 GEOGRAPHY, PLANNING AND ENVIRONMENT	31.550 SCIENCE COLLEGE
31.160 HISTORY INTERDISCIPLINARY ELECTIVE GROUPS (<i>See 31.170</i>)	31.560 SIMONE DE BEAUVOIR INSTITUTE and WOMEN'S STUDIES
31.170 INTERDISCIPLINARY STUDIES INTERDISCIPLINARY STUDIES IN SEXUALITY (<i>See 31.560</i>)	

Section 31

FACULTY OF ARTS AND SCIENCE

Section 31.001

Dean

PASCALE SICOTTE, PhD *Université de Montréal*

Associate Dean, Academic Programs

RICHARD COURTEMANCHE, PhD *Université de Montréal*

Associate Dean, Research

PATRICK LEROUX, PhD *Université de Paris III – Sorbonne Nouvelle; Provost's Distinction*

Associate Dean, Graduate Studies

FRANCESCA SCALA, PhD *Carleton University*

Associate Dean, Student Academic Services

PHILIPPE CAIGNON, PhD *Université de Montréal; Provost's Distinction*

Associate Dean, Planning and Academic Facilities

JOHN A. CAPOBIANCO, PhD *University of Geneva*

Associate Dean, Faculty Affairs

JILL DIDUR, PhD *York University*

Location

Loyola Campus

Administration Building, Room: AD 320

514-848-2424, ext. 2080

Sir George Williams Campus

GM Building, Room: 1040

514-848-2424, ext. 2080

Structure

The Faculty of Arts and Science, comprised of the former Loyola Faculty of Arts and Science, the former Sir George Williams Faculty of Arts, and the former Sir George Williams Faculty of Science, was brought into being on July 1, 1977.

For administrative purposes, the Faculty consists of departments, programs, colleges, institutes, and schools.

The departments and other units of which the Faculty is comprised are as follows:

Departments

Applied Human Sciences

Biology

Chemistry and Biochemistry

Classics, Modern Languages and Linguistics

Communication Studies

Economics

Education

English

Études françaises

Geography, Planning and Environment

Health, Kinesiology, and Applied Physiology

History

Journalism

Mathematics and Statistics

Philosophy

Physics

Political Science

Psychology

Religions and Cultures

Sociology and Anthropology

Theological Studies

Colleges

Liberal Arts College
Loyola College for Diversity and Sustainability
School of Irish Studies
School of Community and Public Affairs
Science College
Simone de Beauvoir Institute

Programs

Certificate in Arts and Science
Certificate in Science Foundations
Individually Structured Program

Objectives

The Faculty of Arts and Science is committed to responsible and innovative leadership in developing and disseminating knowledge and values, and encouraging constructive social criticism. The Faculty achieves these objectives through inclusive and accessible academic programs which stress a broad-based, interdisciplinary approach to learning. We are dedicated to superior teaching and research supported by excellence in scholarship and creative activity, and a tradition of service to the community. The Faculty of Arts and Science serves many interdependent academic communities in an urban environment where students and faculty can pursue their shared commitment to lifelong learning.

Studies in Arts and Science

The Faculty of Arts and Science encourages all students to explore beyond the boundaries of their programs of concentration. This is facilitated by the program structure and graduation requirements of the undergraduate degrees (see §31.002 and 31.003). Undergraduate degrees normally require 90 credits of coursework, consisting of at least one program of concentration (major at 36 to 48 credits; specialization or honours at 60 or more credits). The balance of the degree requirements may be made up of one or more minors (24 to 30 credits), one or more elective groups (15 or 18 credits), or by courses selected from a broad spectrum of disciplines. Students are required to complete at least 24 credits outside their main discipline (defined in this context by the four-letter course prefix) in addition to their program requirements. Credits earned to meet the General Education requirement (see §31.004) may also be counted toward this 24-credit requirement. In programs leading to professional accreditation or in programs that include at least 12 credits from another discipline, the 24-credit requirement can be reduced to 18 credits.

Most major programs are relatively short, allowing maximal development of interests outside the area of concentration. Two areas of concentration can be combined in a double major. Even longer programs (specialization and honours) allow students to diversify their studies for up to one third of their degree requirements.

Program structures thus permit students to obtain a judicious balance between concentrated study and exploration of broader interests. Department and Faculty advisors are available to help students develop a plan of study which accommodates their personal interests and satisfies degree requirements.

Programs of concentration and related minors are published in the Calendar entries for each of the disciplines in the Faculty (§31.010 onward). To facilitate innovative exploration outside these standard disciplines, the Faculty offers many alternatives. First, the University has established six Colleges (\$31.520 to \$31.560) which foster various philosophies and methods of education on an intimate scale. Second, it has created majors which cross disciplinary boundaries (Southern Asia Studies and Women's Studies). In addition, selected students may create their own Individually Structured Program (§31.170) under the direction of the Faculty advisor. Finally, the Faculty offers cross-disciplinary minors (for example, Irish Studies, Southern Asia Studies, and Women's Studies) and a number of Interdisciplinary courses (§31.170) which may be chosen as electives in any program.

A good education — balancing the development of expert knowledge in a narrow domain with broader academic experience — can be obtained in the Faculty of Arts and Science. The programs outlined are best considered as models of what can be planned by imaginative students and their academic advisors.

31.002 PROGRAMS AND ADMISSION REQUIREMENTS

General admission requirements are listed in §13.

Specific requirements for admission to the various programs leading to the BA, BEd, and BSc degrees, and to certificates, are set out in the first column of the following listings. They refer to the table of Cegep pre-Arts and pre-Science profiles defined below. Students lacking one or more of these prerequisites may be admitted, but must include the designated prerequisites among the first 30 credits of their undergraduate program. In certain cases, the prerequisites must be taken in addition to the undergraduate program.

Profile	Requirements
0.00	Diploma of Collegial Studies (DEC – Diplôme d'études collégiales).
0.72	DEC or equivalent and appropriate teaching licence.
0.80	Full-time teaching position with an educational institution recognized by the Ministère de l'Éducation et de l'Enseignement supérieur (MEES) and a Provisional Teaching Authorization from the MEES.

- 3.14 Biology 301, 401, 911, 921 or 101-NYA.
- 4.03 Social Science DEC plus Mathematics 300 and Biology 921 (Social Science DEC includes Introductory Psychology).
- 4.10 DEC in Humanities or equivalent. Any other DEC including courses in Psychology and Quantitative Methods or its equivalent.
- 5.00 Natural Science DEC.
- 6.00 DEC intégré en sciences, lettres et arts.
- 10.1 Mathematics 337 or 103 and 307 or 201-NYA; Biology 301, 401, 911, 921 or 101-NYA; Psychology 101 or 102.
- 10.5 Two Cegep courses or equivalent in the language to be studied. If these courses have not been available in the Cegep attended, the student may be required to complete them at the university level.
- 10.9 Mathematics 103 or 201-NYA and 203 or 201-NYB; Physics 101 or 203-NYA and 201 or 203-NYB and 301 or 203-NYC; Chemistry 101 or 202-NYA and 201 or 202-NYB; Biology 301 or 101-NYA.
- 10.10 Mathematics 103 or 201-NYA and 203 or 201-NYB and 105 or 201-NYC; Physics 101 or 203-NYA and 201 or 203-NYB and 301 or 203-NYC; Chemistry 101 or 202-NYA and 201 or 202-NYB; Biology 301 or 101-NYA.
- 10.12 Mathematics 103 or 201-NYA and 203 or 201-NYB and 105 or 201-NYC.
- 10.13 There are no particular requirements for graduates of an anglophone Cegep other than the DEC. Graduates of a francophone Cegep must hold a DEC with an advanced course in English or have an equivalent background in English.
- A: Interview
- E: Essay
- G: Letter of intent
- K: Submission of a portfolio of representative work
- N: English proficiency test/Placement test
- P: Competency in written and oral French, to be determined by a proficiency test, the results of which may lead to the rejection of the candidate or the requirement of additional university courses.
- Q: Competency in written and oral English, to be determined by a proficiency test, the results of which may lead to the rejection of the candidate or the requirement of additional university courses.
- +: Two letters of reference; Early Childhood and Elementary Education and Teaching English as a Second Language require three letters of reference.

Program titles refer to honours, specialization and major components where these exist. Full information about the programs offered under each title (including combinations with programs in other disciplines) is to be found in the section of the Calendar specified in the third column below.

BA, BSc, BEd

Profile	Program	Calendar Section
0.00	Adult Education	31.090.2
0.00	Anthropology	31.310
0.00	Anthropology and Sociology	31.310
10.9/5.00/6.00	Biochemistry	31.050
10.9/5.00/6.00	Biology	31.030
10.9/5.00/6.00	Biology (Cell and Molecular Biology)	31.030
10.9/5.00/6.00	Biology (Ecology)	31.030
10.9/5.00/6.00	Biology (Environmental and Sustainability Science)	31.030
10.10/5.00/6.00	Biology (Systems and Information Biology)	31.030
0.00	Certificate in Arts and Science	31.170
0.00	Certificate in Science Foundations	31.170
10.9/5.00/6.00	Chemistry	31.050
0.00	Child Studies	31.090
0.00	Classics	31.060
0.00A,E,G,K,+	Communication Studies	31.070

Profile	Program	Calendar Section
0.00A,E,G,+	Communication and Cultural Studies	31.070
0.00A,P,Q	Community, Public Affairs and Policy Studies	31.540
0.00G	Community Service	31.010
0.00G,K	Creative Writing (see also English and Creative Writing)	31.100
0.00A+	Early Childhood and Elementary Education	31.090
0.00	Economics	31.080
0.00	Education: Adult Education	31.090.2
	Education (see Child Studies; Early Childhood and Elementary Education; Teaching English as a Second Language)	
0.00	English (see also Creative Writing; Professional Writing)	31.100
0.00G,K	English and Creative Writing	31.100
0.00	English and History	31.100, 31.160
0.00	English Literature	31.100
10.5	Études françaises	31.110
10.5G	Traduction (Spécialisation, Majeure)	
0.00	Langue française (Spécialisation, Majeure, Mineure, Certificat)	
10.5	Littératures de langue française (Spécialisation, Majeure, Mineure)	
10.5	Linguistique française (Mineure)	
10.9/5.00/6.00	Exercise Science (Clinical Exercise Physiology, Athletic Therapy)	31.120
0.00G	Family Life Education	31.010
0.00	First Peoples Studies	31.540
	French Studies — see Études françaises	
0.00	Geography, Planning and Environment (BA), Human Environment	31.130
10.9/5.00/6.00	Geography, Planning and Environment (BSc), Environmental Geography	31.130
10.9/5.00/6.00	Geography, Planning and Environment (BSc), Environmental and Sustainability Science	31.130
0.00	German	31.060
0.00	History	31.160
0.00	History and English	31.160, 31.100
0.00G	Human Relations	31.010
Appropriate	Interdisciplinary Studies — Individually Structured Program	31.170
0.00G	Interdisciplinary Studies in Sexuality (Major)	31.560
0.00	Interdisciplinary Studies in Sexuality (Minor)	31.560
0.00	Irish Studies	31.530
0.00	Italian	31.060
0.00G,Q	Journalism	31.180
0.00,G ^{Honours}	Judaic Studies	31.270
0.00A,G ^{Honours}	Liberal Arts	31.520
0.00	Linguistics	31.060
10.12/6.00	Mathematics and Statistics (BA)	31.200
10.10/5.00/6.00	Mathematics and Statistics (BSc)	31.200
10.12/6.00	Mathematics (Actuarial — BA)	31.200
10.10/5.00/6.00	Mathematics (Actuarial — BSc)	31.200
10.12/6.00G	Mathematics (Actuarial Mathematics/Finance — BA)	31.200
10.10/5.00/6.00G	Mathematics (Actuarial Mathematics/Finance — BSc)	31.200
10.12/6.00	Mathematics (Computational Finance — BA)	31.200
10.10/5.00/6.00	Mathematics (Computational Finance — BSc)	31.200
10.12/6.00	Mathematics (Pure and Applied — BA)	31.200
10.10/5.00/6.00	Mathematics (Pure and Applied — BSc)	31.200
0.00	Pastoral Care	31.330
0.00	Philosophy	31.220
10.10/5.00/6.00	Physics	31.230
0.00	Political Science	31.240
0.00N	Professional Writing	31.100
10.1/4.03/6.00/	Psychology (BA)	31.250
3.14 + 4.10		
5.00/6.00/10.9	Psychology (BSc)	31.250
5.00/6.00/10.9	Psychology (Behavioural Neuroscience Option)	31.250
0.00G	Recreation and Leisure Studies	31.010
0.00,G ^{Honours}	Religions and Cultures (see also Judaic Studies)	31.270

Profile	Program	Calendar Section
0.00	Sociology	31.310
0.00	Southern Asia Studies	31.270
0.00	Spanish, Hispanic Cultures and Literatures	31.060
10.12/6.00	Statistics (BA)	31.200
10.10/5.00/6.00	Statistics (BSc)	31.200
10.13	Teaching English as a Second Language	
A,G,P,Q,+		31.090.1
0.72	Teaching English as a Second Language (Certificate)	31.090.1
G,Q,+	Theological Studies (see also Pastoral Care)	31.330
3.14G	Therapeutic Recreation	31.010
0.00	Urban Planning	31.130.1
0.00	Urban Studies	31.130.1
0.00	Women's Studies	31.560

Mature Student Entry

Concordia University has a tradition of concern for the education of Mature students; it has always sought to assist students of 21 and over to undertake undergraduate studies. The staff of the Faculty of Arts and Science provide guidance and encouragement to all Mature Entry students as they begin the challenging journey of plunging into courses and programs in a very large urban university after what could have been years away from classes and studying. Mature students who are seeking first-year academic counselling and advice on returning to university studies are encouraged to contact the office of Student Academic Services of the Faculty of Arts and Science at 514-848-2424, ext. 2104.

Extended Credit Program

Students admitted to BA and BEd Extended Credit Programs are required to complete an additional 30 credits for the degree and must include the following 30 credits:

30 elective credits, of which a maximum of 12 may be outside the Faculty of Arts and Science. Certain departments in the Faculty have specific requirements. Students intending to follow programs of concentration within these departments must include the specified components as part of their program.

BA Mathematics: 9 credits in Mathematics — 203³, 204³, 205^{3*}

*Students not having MATH 202³, or the equivalent, must take it in place of one of their elective courses.

BA Psychology: 3 credits in Mathematics
3 credits in Biology
6 credits in Psychology

BA Therapeutic Recreation: BIOL 200³ or 201³ or 202³, or equivalent

Students admitted to the BSc Extended Credit Program are required to complete an additional 30 credits for the BSc degree and must include the following 30 credits:

6 credits in Chemistry 205³, 206³
6 credits in Mathematics 203³, 205^{3*}
12 credits in Physics 204³, 205³, 206³, 224¹, 225¹, 226¹
3 credits in Biology 201³
3 credits in Mathematics 204³ for students intending to enter Systems and Information Biology, or programs of concentration in Mathematics or Physics;** or electives for all other students

*Students not having MATH 201³, or the equivalent, must take it in place of one of their elective courses.

**Students not having MATH 202³, or the equivalent, must take it in place of one of their elective courses.

NOTE: Students in the BA, BEd or BSc Extended Credit Program may not count towards their programs of concentration courses taken as part of the first 30 credits.

31.003 DEGREE REQUIREMENTS

In accordance with the recommendations of the Council of Universities of Quebec, the credit base takes into account the total activity of the student. A student preparing for the BA, BEd, or BSc degree takes a minimum of 90 credits. Each credit represents, for the average student, a minimum of 45 hours spread across lectures, conferences, tutorials, laboratories, studio or practice periods, tests, examinations, and personal work.

Since the Cegep programs are designed to give all students the opportunity to explore different fields and thus acquire a broad general basis for further study, the undergraduate programs in the Faculty of Arts and Science require some degree of concentration in specific areas. Detailed statements about these programs are made under the appropriate disciplinary headings in the sections of the Calendar that follow this general account of degree requirements. They represent four main forms of concentration: the

minor, the *major*, the *specialization*, and *honours*; and a fifth form, the *certificate*. The University's formal definitions of these kinds of programs are set out in §16.2.4; for the convenience of students in Arts and Science, those definitions as they are construed in the Faculty are briefly repeated below.

The *minor* is a program consisting of a *minimum* of 24 specified credits either in a single discipline and professing to give a basic introduction to the methodology and key concepts of that discipline or on a theme spanning more than one discipline and providing a cross-disciplinary or interdisciplinary perspective. A minor cannot in and by itself provide the concentration required of a candidate for a degree and is therefore always taken in combination with another program. In addition to the interdisciplinary and disciplinary minors available in Arts and Science, students may register with approval for selected minors in other Faculties. Available Arts and Science interdisciplinary and disciplinary minors are indicated in the Calendar entry of each department or in §31.170.

The **Faculty of Arts and Science** and the **John Molson School of Business**:

With the approval of the John Molson School of Business, Arts and Science students may take a Minor in Business Studies (see §61.140).

The **Faculty of Arts and Science** and the **Gina Cody School of Engineering and Computer Science**:

With the approval of the Gina Cody School of Engineering and Computer Science, Arts and Science students may take a Minor in Computer Science (see §71.70.5).

All minors in the **Faculty of Fine Arts** are open to suitably qualified students.

The *major* consists of a *minimum* of 36 specified credits taken in an approved sequence of courses. Normally within a major program not more than 36 credits are required from a single discipline or department. In certain programs, however, additional credits are required in cognate disciplines and departments. The major provides a solid grounding in the academic knowledge comprehended within the field of concentration. To enter and remain in it, a student normally does not have to meet a special performance requirement; see, however, Liberal Arts §31.520. Students with appropriate admission requirements, normally after completion of 24 credits, may request permission to be admitted to a second program of concentration in the Faculty, normally a major. Exceptionally, students may complete a second major in the Faculty of Fine Arts with permission of both Faculties. Students may apply to add a major program normally offered as part of a BA degree to a BSc degree or BEd degree or vice-versa. Attainment of acceptable GPA and satisfactory academic standing are required. The Faculty of Arts and Science will consider favourably such requests subject to admission quotas and the student having the appropriate prerequisite and admission profile (see §31.002). The student record and official transcript indicate all programs of concentration. Specific courses can only be used to fulfill the requirements of one program.

Students completing the requirements of a BA, BEd, BSc, and/or BFA will elect one degree for graduation.

The *specialization* consists of a *minimum* of 60 specified credits, normally not more than 54 credits of which are mandated from a single discipline or department. A specialization provides a comprehensive education in the field of concentration, but to enter and remain in it, a student normally does not have to meet a special performance requirement unless otherwise indicated in the program. Students interested in subsequent "classification" by the Government of Quebec may be advised to follow a specialization or an honours program. Second programs of concentration (minor or major) may be combined with a specialization program according to regulations described above for those programs.

The *honours* program consists of a *minimum* of 60 specified credits taken in an approved sequence of courses. Normally within an honours program not more than 60 credits are mandated from a single discipline or department in the Arts and 72 credits in the Sciences. Additional credits may be required in cognate disciplines and departments. Superior academic performance is required for admission to and continuation in the honours program, the precise level of such performance being determined by Senate. See §16.2.4 and *Faculty Honours Regulations* set out below for matters governing honours programs at Concordia. An honours degree or equivalent, because it testifies to a student's comprehensive education in a particular field, intellectual commitment to that field, and achievement of a high level of academic performance, has traditionally been required of entrants to postgraduate programs.

Graduation Requirements

1. A candidate for graduation must have successfully completed a program of concentration in the form of an *honours*, *specialization*, or *major* program.
2. A candidate for graduation must have successfully completed at least 24 credits outside the single discipline defined by the four-letter course prefix from which the degree concentration has been chosen (for exceptions to the 24-credit rule see section 31.001). Within every block of 30 credits taken towards the degree, a student will normally choose no more than 24 credits from any one discipline or department.
3. A candidate for graduation must have successfully completed at least 18 credits from courses in Arts and Science in every block of 30 credits taken towards the degree.
4. A candidate for the BA degree must have qualified for admission to, and successfully completed, a program leading to that degree. Specific admission requirements, expressed as Cegep pre-Arts profiles, are given in §31.002. Students wishing to transfer out of one degree program into another must satisfy the admission requirements of the program they seek to enter.
5. Program students in the Faculty of Arts and Science may take ESL courses for credit, up to a maximum of six credits.
6. A candidate for the BSc degree must have qualified for admission to, and successfully completed, a program leading to that degree. Specific admission requirements, expressed as Cegep pre-Science profiles, are given in §31.002. Students wishing to transfer out of one degree program into another must satisfy the admission requirements of the program they seek to enter.
7. A candidate for the BEd degree must have qualified for admission to, and successfully completed, the program leading to that degree. The admission and degree requirements are set out in §31.090.1.

8. In general, the credits obtained for any course may not be used to satisfy the requirements of more than one program. Students first registered in certain certificate programs may however apply credits obtained towards the certificate to a degree program.
 9. Independent students will be permitted to apply *no more* than 30 credits obtained as an Independent student towards any Arts and Science Faculty degree program.
 10. Those students entering the Faculty of Arts and Science as degree students beginning in the academic year 2002-03 must fulfill the General Education requirement outlined in §31.004.
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Supplemental Examinations (Arts and Science)

Supplemental examinations shall be offered only when, as a condition for passing the course, it is required that a student pass the final examination regardless of its weighting; or where the final examination contributes 50% or more of the final grade. A student failing a course which comprises entirely, or in part, a laboratory or similar practicum, may not be eligible to write a supplemental examination.

All courses which a student fails and for which there is no supplemental examination shall be graded "FNS" or "R." A failed student (see §16.3.10 V) may not write supplemental examinations.

Honours Programs

The Faculty of Arts and Science has programs leading to an honours concentration in certain selected fields. To enter an honours program, students may apply either for direct entry on admission or, if already admitted to a program in the Faculty of Arts and Science, to the departmental honours advisor. The Department will notify the Office of the Registrar of the acceptance.

Honours Regulations (Faculty Regulations) see also §16.2.4

In order to qualify for an honours program, a student must comply with the regulations set forth below.

1. An honours student must meet the general program requirements, as well as the specific requirements for an honours program. A student must complete a minimum of 30 credits in the courses from the honours component of the program at this University to receive a degree with honours. In certain cases, these 30 credits may include some specific courses for which transfer credit may not be awarded.
2. Students who through their past studies have demonstrated a high level of performance may apply for direct entry to an honours program on admission. Information specific to the academic unit may be found in the Undergraduate Application for Admission.
3. Students already admitted to a program at Concordia University may apply for entry into an honours program with a minimum cumulative GPA of 3.30 (B+) and assessment GPA of 3.30 (B+). It is normally advisable that students have completed 30 Concordia credits in their program before applying for admission to the honours program. Averages are calculated on Concordia courses only and some departments may have a higher cumulative GPA and assessment GPA requirement.
4. All students must maintain a minimum cumulative GPA of 3.30 as well as a minimum assessment GPA of 3.30 within the honours program (some departments may have a higher cumulative GPA and assessment GPA requirement). The minimum acceptable grade in any course is normally "C."
5. Students who are withdrawn from the honours program may proceed in the corresponding specialization or major program. Reinstatement in the honours program is possible only by appeal to the Faculty Honours Committee.
6. A student is allowed to qualify for only one honours degree in either a single or combined honours program. A student may qualify for a minor or major program in addition to an honours program. In general, the credits obtained for a particular course may be used to satisfy the requirements of only one program.

Students may appeal the determination of their status or interpretation of requirements in the honours program. Such appeals should be addressed to the Associate Dean, Student Academic Services. The Faculty of Arts and Science has an Honours Committee made up as follows: three faculty members; one undergraduate student member; one Student Academic Services counsellor (non-voting); one representative of the Office of the Registrar (non-voting); and the Associate Dean, Student Academic Services, who chairs the Honours Committee.

The Faculty Honours Committee considers applications from departmental honours advisors submitted on behalf of the students for exceptions to the honours regulations. It also adjudicates disputes between students and departments concerning honours programs. Since the Faculty Honours Committee cannot hear appeals contesting its own judgments, students and departments who wish to appeal a decision of the Faculty Honours Committee should address this appeal to the Dean of the Faculty.

31.003.1 Academic Performance Regulations

Objectives

The objectives of these regulations are to ensure that the Faculty can certify that all of its graduates have achieved an acceptable level of scholarship.

Assessment Grade Point Average (AGPA)* Requirements and Consequences

*See §16.3.10 for definition of AGPA.

Acceptable standing requires that a student obtain an AGPA of at least 2.00.

NOTE: Although a "C-" grade (1.70 grade points) is designated as satisfactory in §16.1.11, an AGPA of 2.00 is required for acceptable standing.

Students in acceptable standing may continue their programs of study, following the advice of their academic departments.

Conditional standing results when a student obtains an AGPA of less than 2.00, but at least 1.50. A student is not permitted to obtain two consecutive conditional standing assessments.

Students in conditional standing may not write supplemental examinations.

Students in conditional standing will not be permitted to register for further study until their program has been approved by the appropriate advisor in their department.

They must obtain acceptable standing at the time of their next assessment.

Failed standing results when a student obtains an AGPA of less than 1.50, or conditional standing in two consecutive periods of assessment.

Failed students may not write supplemental examinations.

Failed students are required to withdraw from their program. Students who are in failed standing for a second time will be dismissed from the University. In subsequent years, should they wish to return to University studies, they must contact the Office of the Registrar for information concerning conditions and procedures for seeking readmission. Decisions of the relevant authority in the Faculty to which application is made are final.

Failed students who are not dismissed may apply for readmission through the Dean's Office of the Faculty to which they wish to be readmitted. If readmitted, they will be placed on academic probation. They must return to acceptable standing at the time of their next assessment. Other conditions will be determined at the time of readmission.

Graduation Requirements

Students must satisfy all course requirements, be in acceptable standing, and have a minimum final graduation GPA of 2.00.

The standings of potential graduates who have attempted fewer than 12 credits since their last assessment are determined on the basis that these credits constitute an extension of the last assessment period.

Potential graduates who fail to meet the requirements of acceptable standing, but meet the requirements of conditional standing, will have the following options:

a) register for an additional 12 credits and, at the next assessment, meet the requirements for acceptable standing;
or

b) register for fewer than 12 additional credits.

In this case, standing will be determined on the basis that these extra credits constitute an extension of the last assessment period.

For both option a) and option b), the additional courses taken must be approved by the appropriate member of the Dean's Office, in consultation with the student's department where necessary.

Dean's Office

Dean's Office is to be understood as being the appropriate member of the Dean's Office, normally the Associate Dean, Student Academic Services, or delegate.

31.003.2 Registration Regulations

Lapsed Program

Students enrolled in an honours, specialization, or major program in the Faculty of Arts and Science who have not registered for a course for nine consecutive terms or more will have a lapsed notation entered on their student record. Lapsed students must meet with the appropriate advisor in order to continue in their program and to be made aware of possible program modifications.

31.003.3 In Progress "IP" Notations

Students should refer to §16.3.6 for Procedures and Regulations.

The In Progress "IP" notation is reserved for the following courses offered by the Faculty of Arts and Science:

ACTU 492 ³	Reading Course in Actuarial Mathematics
ACTU 493 ⁶	Honours Project in Actuarial Mathematics
AHSC 435 ³	Fieldwork Practice
AHSC 436 ³	Internship in Youth and Family Work
AHSC 437 ⁶	Internship in Recreation and Leisure Studies
AHSC 438 ⁹	Internship in Therapeutic Recreation
AHSC 439 ⁶	Internship in Human Relations
ANTH 315 ⁶	Field Research
ANTH 495 ⁶	Honours Essay
BIOL 490 ⁶	Independent Study
CATA 365 ⁶	Athletic Therapy Field Internship I
CATA 475 ⁶	Athletic Therapy Clinical Internship I
CATA 485 ³	Athletic Therapy Field Internship II
CATA 495 ³	Athletic Therapy Clinical Internship II
CHEM 419 ⁶	Independent Study and Practicum
CHEM 450 ⁶	Research Project and Thesis

COMS 394 ³	Communication Studies Apprenticeship I
COMS 395 ³	Communication Studies Apprenticeship II
COMS 496 ³	Directed Study I
COMS 497 ³	Directed Study II
ENGL 474 ³	Honours Essay
ENGL 480 ³	Independent Studies
FTRA 420 ⁶	Stage de formation : de l'anglais au français
FTRA 421 ⁶	Stage de formation : du français à l'anglais
FTRA 422 ³	Stage de formation : de l'anglais au français I
FTRA 423 ³	Stage de formation : du français à l'anglais I
FTRA 424 ³	Stage de formation : de l'anglais au français II
FTRA 425 ³	Stage de formation : du français à l'anglais II
GEOG 490 ³	Internship in Geography
GEOG 491 ⁶	Honours Essay
HIST 304 ³	Tutorial Preparation for the Honours Essay
HIST 493 ⁶	Honours Essay Tutorial
JOUR 450 ³	Journalism Practicum
JOUR 451 ³	Independent Study
KCEP 383 ³	Clinical Exercise Physiology Internship I
KCEP 483 ³	Clinical Exercise Physiology Internship II
MAST 398 ³	Reading Course in Mathematics and Statistics
MATH 495 ³	Reading Course in Pure and Applied Mathematics
MATH 496 ⁶	Honours Project in Pure and Applied Mathematics
PHYS 497 ³	Specialization Research Project
POLI 397 ³	Internship
POLI 495 ⁶	Honours Thesis
PSYC 311 ³	Research Methods and Designs II
PSYC 387 ³	Directed Research in Psychology
PSYC 485 ⁶	Specialization Project
PSYC 495 ⁶	Honours Thesis
RELI 410 ⁶	Honours Thesis
RELI 496 ³	Independent Studies in Religion
SCOL 290 ³	Directed and Independent Study I
SCOL 391 ⁶	Directed and Independent Study II
SCOL 490 ⁶	Directed and Independent Study III
SCPA 411 ³	Internship
SOCI 409 ⁶	Honours Seminar
SOCI 415 ⁶	Field Research
STAT 498 ³	Reading Course in Statistics
STAT 499 ⁶	Honours Project in Statistics
URBS 483 ³	Directed Studies/Practicum in Urban Planning I
URBS 484 ³	Directed Studies/Practicum in Urban Planning II
URBS 491 ⁶	Honours Thesis or Project
WSDB 496 ⁶	Directed Research

31.004 GENERAL EDUCATION

Coordinator

RICHARD COURTEMANCHE, PhD *Université de Montréal; Associate Dean, Academic Programs*

Location

Loyola Campus

Faculty of Arts and Science
7141 Sherbrooke St. W.
514-848-2424, ext. 2088
Email: sas.fas@concordia.ca

Objectives

An education for life requires the ability to read, write, speak, reason, compute, and listen effectively. This is true for all students, whether they are in the social sciences, humanities, natural sciences, or any other Faculty in the University. The General Education requirement is meant to provide breadth to the student's program of study.

Regulations

A candidate for graduation must satisfy the Arts and Science General Education requirement by successfully completing a minimum of six credits from course offerings outside the candidate's disciplinary sector.

The disciplinary sectors comprising the Faculty of Arts and Science are Humanities, Social Science, and Science. The academic units within each sector are as follows:

HUMANITIES: Classics; Modern Languages and Linguistics; Communication Studies; English; Études françaises; History; Irish Studies; Journalism; Liberal Arts College; Philosophy; Theological Studies

SOCIAL SCIENCE: Applied Human Sciences; Economics; Education; Geography, Planning and Environment; Loyola College for Diversity and Sustainability; Political Science; Religions and Cultures; School of Community and Public Affairs; Simone de Beauvoir Institute; Sociology and Anthropology

SCIENCE: Biology; Chemistry/Biochemistry; Health, Kinesiology, and Applied Physiology; Mathematics and Statistics; Physics; Psychology; Science College

Courses falling under the administrative umbrella of Interdisciplinary Studies are considered for General Education requirement purposes to fall within the Social Sciences.

Students may also count courses offered by the John Molson School of Business, the Gina Cody School of Engineering and Computer Science, and the Faculty of Fine Arts toward their General Education requirement.

Students in a 90-credit degree who successfully complete an honours program or a specialization program from the Science disciplinary sector and who complete the Minor in Multidisciplinary Studies in Science offered by the Science College are considered to have met the General Education requirement.

Students enrolled in two areas of concentration which are both within the same disciplinary sector are required to take six credits outside of the sector. For example, students enrolled in a BA Major in History and a BA Major in Theological Studies, both of which fall within the Humanities, must fulfill the requirement by successfully completing either six credits from the Social Science or Science sector, or three credits from the Social Science sector and three credits from the Science sector, or six credits from outside the Faculty of Arts and Science.

Students enrolled in two areas of concentration drawn from different disciplinary sectors will be considered as having satisfied the General Education requirement. For example, students enrolled in a BA Major in Sociology (Social Science) and a BA Major in English (Humanities) will be considered as having satisfied the General Education requirement.

Students enrolled in an undergraduate certificate program are exempt from the General Education requirement as are students pursuing a second or subsequent undergraduate degree.

ESL courses or introductory English language courses are not considered as substitutions for this requirement.

Faculty

Chair

PETER MORDEN, PhD *University of Waterloo*; Associate Professor

Professors

JAMES F. GAVIN, PhD *New York University*

RAYE KASS, PhD *University of Toronto*

VARDA MANN-FEDER, DEd *McGill University*

LISA OSTIGUY, PhD *University of Iowa*

ROSEMARY REILLY, PhD *McGill University*

Associate Professors

NATASHA BLANCHET-COHEN, PhD *University of Victoria*

JAMES CONKLIN, PhD *Concordia University*

GILBERT ÉMOND, PhD *Université du Québec à Montréal*

ELIZABETH FAST, PhD *McGill University*

DARLA FORTUNE, PhD *University of Waterloo*

SHANNON HEBBLETHWAITE, PhD *University of Guelph*

WARREN LINDS, PhD *University of British Columbia*

PATTI RANAHAN, PhD *University of Victoria*

HILARY ROSE, PhD *University of Georgia*

FELICE YUEN, PhD *University of Waterloo*

Assistant Professor

SHAWN WILKINSON, PhD *McGill University*

Senior Lecturers

STEVEN HENLE, PhD *New York University*

ROBERT HOPP, MA *University of Iowa*

Lecturer

MICHELLE VEZINA, MA *University of Waterloo*

For the complete list of faculty members, please consult the Department website.

Location

Loyola Campus

7141 Sherbrooke St. W., Room: VE 223

514-848-2424, ext. 3330 or 2260

Department Objectives

The strategic objective of the Department of Applied Human Sciences is to improve quality of life and well-being. This is accomplished through the integration of theory and practice to promote effective practitioner skill. The Department of Applied Human Sciences is an interdisciplinary and applied academic unit which generates knowledge and provides practice-based education in human relations, recreation and leisure studies, therapeutic recreation, human systems intervention, family life education and community service. Involvement in practical contexts beyond the University provides an important link with members of the community, thereby offering a genuine environment for the exchange of knowledge and expertise.

Programs

Students in Human Relations, Recreation and Leisure Studies, and Therapeutic Recreation are required to complete the appropriate entrance profiles. The entrance profile is 0.00G for Human Relations; 0.00G for Recreation and Leisure Studies; and 3.14G for Therapeutic Recreation. Please Note: Students may complete the 3.14 profile at Concordia after admission (see Programs and Admission Requirements).

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

60 BA Specialization in Human Relations

- 15 AHSC 220³, 230³, 232³, 260³, 270³
15 AHSC 311³, 330⁶, 380³, 382³

Students must follow one of the following concentrations: Individual and Small Group Processes; Family Science and Youth; Community Development; or Organization Development and Change.

Individual and Small Group Processes Concentration

- 6 AHSC 225³, 400³
6 AHSC 436⁶ or 439⁶
9 Elective credits chosen from the Individual focus list
AHSC 312³, 314³, 315³, 316³, 319³, 451⁶
9 Elective credits chosen from the Group focus list
AHSC 313³, 322³, 335³, 355³, 403³, 460⁶, 470³
Three of the 18 elective credits must be chosen at the 400 level

Family Science and Youth Concentration

- 18 AHSC 312³, 313³, 320³, 355³, 456³, 465³
6 AHSC 436⁶
6 Elective credits chosen from AHSC 314³, 316³, 319³, 322³, 398³, 400³

Community Development Concentration

- 6 AHSC 343³, 445³
6 AHSC 439⁶
18 Elective credits with at least three credits at the 400 level, chosen from AHSC 225³, 335³, 400³, 403³, 411³, 415³, 460⁶, 470³, 475³

Organization Development and Change Concentration

- 6 AHSC 332³, 425³
6 AHSC 439⁶
18 Elective credits with at least three credits at the 400 level, chosen from AHSC 315³, 335³, 370³, 400³, 403³, 411³, 415³, 460⁶, 470³, 475³

60 BA Specialization in Recreation and Leisure Studies

- 12 AHSC 220³, 230³, 241³, 260³
21 AHSC 321³, 350³, 361³, 371³, 380³, 382³, 385³
9 AHSC 427³, 431³, 442³
6 AHSC 437⁶
12 Elective credits chosen from either Recreation Programming or Recreation Administration

Recreation Programming

- With at least three credits at the 400 level, chosen from AHSC 281³, 310³, 311³, 323³, 333³, 360³, 403³, 421³, 422³, 444³, 450³, 460⁶, 490³, 491³

Recreation Administration

- With at least three credits at the 300 level, chosen from MANA 201³, 202³, 298³, 300³, 343³, 362³, 374³

60 BA Specialization in Therapeutic Recreation

- 15 AHSC 220³, 230³, 241³, 260³, 281³
24 AHSC 321³, 350³, 361³, 380³, 381³, 382³, 383³, 384³
9 AHSC 427³, 432³, 450³
9 AHSC 438⁹
3 Elective credits chosen from AHSC 360³, 385³, 422³, 442³, 444³

42 BA Major in Human Relations

- 15 AHSC 220³, 230³, 232³, 260³, 270³
9 AHSC 311³, 330⁶
3 AHSC 435³

Students must follow one of the following concentrations: Individual and Small Group Processes; Community Development; or Organization Development and Change.

Individual and Small Group Processes Concentration

- 6 AHSC 225³, 400³
3 Elective credits chosen from the Individual focus list
AHSC 312³, 314³, 315³, 316³, 319³, 451⁶
3 Elective credits chosen from the Group focus list
AHSC 313³, 322³, 335³, 355³, 403³, 460⁶, 470³
3 Elective credits at the 400 level chosen from the Individual focus list or the Group focus list

- Community Development Concentration*
- 6 AHSC 343³, 445³
 - 9 Elective credits with at least three credits at the 400 level, chosen from AHSC 225³, 335³, 400³, 411³, 415³, 460⁶, 475³
- Organization Development and Change Concentration*
- 6 AHSC 332³, 425³
 - 9 Elective credits with at least three credits at the 400 level, chosen from AHSC 315³, 335³, 370³, 403³, 411³, 415³, 470³, 475³
-
- 42 BA Major in Recreation and Leisure Studies**
- 12 AHSC 220³, 230³, 241³, 260³
 - 15 AHSC 321³, 350³, 361³, 371³, 385³
 - 6 AHSC 427³, 442³
 - 9 Elective credits, with at least three credits at the 400 level, chosen from AHSC 281³, 310³, 311³, 323³, 333³, 360³, 403³, 421³, 422³, 444³, 450³, 460⁶
- 30 Minor in Human Relations**
- 12 AHSC 220³, 230³, 232³, 260³
 - 6 AHSC 330⁶
 - 12 Elective credits chosen from AHSC 225³, 270³, 311³, 312³, 313³, 314³, 315³, 316³, 319³, 322³, 335³, 451⁶, 460⁶, 470³, 475³
-

Certificate in Community Service

The Department of Applied Human Sciences offers a 30-credit program leading to the Concordia University Certificate in Community Service. Students may transfer into the certificate program credits earned in an incomplete degree or certificate program or as an Independent student, as approved by a departmental undergraduate advisor, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the program.

Admission Requirements

Students are required to complete the 0.00G entrance profile to enter the certificate.

Mature Entry students require the prerequisite: ENGL 212³.

30 Certificate in Community Service

NOTE: AHSC 230³, 232³, and 270³ are prerequisites for courses included in this certificate.

Phase I

- 6 AHSC 260³, 370³

Phase II

- 9 AHSC 315³, 330⁶

Phase III

- 6 Chosen from AHSC 332³ and 425³; or 343³ and 445³; or 460⁶

- 9 Elective credits chosen from AHSC 220³, 225³, 311³, 314³, 316³, 319³, 335³

NOTE: In the event that a student is awarded an exemption from a required course, it will be necessary for the student to replace that course with another relevant to the program, chosen in consultation with the coordinator of undergraduate programs.

Certificate in Family Life Education

The Department of Applied Human Sciences offers a 30-credit program leading to the Concordia University Certificate in Family Life Education. Students may transfer into the certificate program credits earned in an incomplete degree or certificate program or as an Independent student, as approved by a departmental undergraduate advisor, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the program.

Admission Requirements

Students are required to complete the 0.00G entrance profile to enter the certificate.

Mature Entry students require the prerequisite: ENGL 212³.

30 Certificate in Family Life Education

NOTE: AHSC 220³, 230³, and 232³ are prerequisites for courses included in this certificate.

Phase I

- 12 AHSC 260³, 312³, 313³, 355³

Phase II

- 6 AHSC 330⁶

Phase III

- 3 AHSC 435³

- 9 Elective credits chosen from AHSC 225³, 270³, 311³, 314³, 315³, 316³, 319³, 335³, 360³, 460⁶

NOTE: In the event that a student is awarded an exemption from a required course, it will be necessary for the student to replace that course with another relevant to the program, chosen in consultation with the coordinator of undergraduate programs.

Courses

AHSC 220 **Lifespan Growth and Development for Practitioners** (3 credits)

This survey course provides an interdisciplinary overview of biopsychosocial patterns of development over the lifespan, from conception to death. Students learn about theories of human development, with an emphasis on typical normative development, and on application of theory to practice. The course material covers key issues in development, major milestones of development, and major life events. In addition, students are given opportunities to think critically and to become better able to interpret and assess research within the field.

NOTE: Students who have received credit for PSYC 230 may not take this course for credit.

NOTE: Students registered in a Psychology program may not take this course for credit.

AHSC 223 **Relationships Across the Lifespan** (3 credits)

This course is designed to provide a theoretical overview of how relationships are formed, sustained, and developed/changed in each stage of human life. A variety of theories and perspectives are explored.

NOTE: AHSC students may not take this course for credit.

NOTE: Students who have received credit for AHSC 220 or for this topic under an AHSC 298 number may not take this course for credit.

AHSC 225 **Principles of Experiential and Action Learning and the Reflective Practitioner** (3 credits)

This course introduces students to the ways in which theories of learning (including experiential, transformational, integral and action learning) relate to and can inform efforts to bring improvement and change to individuals and groups. The course explores the importance of personal engagement in learning, and illustrates how ongoing reflection strengthens a learning process. It enables students to create clear personal visions, set relevant learning goals, create and organize related activities, and assess their progress. The course provides learning process models and ways to identify personal stylistic differences which affect personal learning progress and strategies.

AHSC 230 **Interpersonal Communication and Relationships** (3 credits)

This course is designed to provide knowledge and skill in building and maintaining interpersonal relationships characterized by mutual understanding and respect. Students can expect to enhance their understanding of themselves and their personal styles. The course focuses on effective communication behaviour. Students can expect to improve their abilities to attend to verbal and non-verbal communication; exchange constructive feedback with others; address and deal constructively with conflict; and communicate across differences, such as gender and race. Conceptual perspectives include the contextual influences in relationship dynamics and the role of affect in interpersonal communication. The course also examines value considerations.

AHSC 232 **Working in Task Groups** (3 credits)

Prerequisite: AHSC 230. This course is an introduction to understanding interaction and developmental processes of small groups and skill-building for effective participation. It enables students to learn frameworks for observing a group's process, member roles that facilitate positive group processes and task accomplishment, and models of intervention in small groups. The course provides opportunities for students to integrate the theory they learn with their experiences in a task group.

AHSC 241 **Recreation and Leisure in Contemporary Society** (3 credits)

This course introduces students to the theories and relationships of play, perceptions of free and discretionary time, concepts of leisure, and the historical foundations for the discipline. The concepts are presented as integral components of today's lifestyle. In addition, the organized recreation system is examined, with an introduction to the leisure services delivery system. The students also examine the role that leisure plays in current societal issues.

AHSC 260 **Program Planning, Design and Evaluation** (3 credits)

The course prepares students to construct effective interactive programs designed for specific client populations. Using program design principles and practices, students match learning activities to desired program outcomes, while considering participant qualities and contextual features. Emphasis is placed on assessment, design, and evaluation knowledge and skills.

AHSC 270 **Introduction to Human Relations Theory and Research** (3 credits)

This course is an introduction to general systems theory and change from an interventionist perspective, as well as an orientation to various unique human systems. It focuses on understanding applied social science research and examines general strategies of intervention and salient models of practice, exposing students to varied domains of application. The course also features attention to values and ethical issues associated with specific practice and intervention strategies and the role of social justice and anti-oppressive approaches.

AHSC 281 **Introduction to Therapeutic Recreation** (3 credits)

An examination of the fundamental concepts of therapeutic recreation. Included is the study of the historical foundations and the basic terminology, purposes, and theories of therapeutic recreation.

AHSC 298 **Selected Topics in Applied Human Sciences** (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

AHSC 310 *Tourism in Canada* (3 credits)

This course presents an examination of the tourism industry in Canada, including concepts, research, practices, and promotion. Topics covered include destination motivation, commercial recreation, business travel, trends in tourism development, government agencies, the economics of promotion, social objectives, market segmentation, and ethical and legal considerations.

AHSC 311 *Respecting Diversity in Human Relations* (3 credits)

Prerequisite: 24 university credits including AHSC 230. This course examines the role of interconnected identity-related differences, such as age, culture, disability, ethnicity, gender, geographical location, health status, history, language, power, race, religion, sexual orientation, social class, and privilege in human relationships and human systems. Students learn about histories of oppression and marginalization in Canada, theories of diversity and difference, as well as the impact of social justice movements and being and becoming an ally. Students are given opportunities to develop critical thinking and analytic skills and respect for difference and diversity.

NOTE: Students who have received credit for AHSC 245 may not take this course for credit.

AHSC 312 *Sexuality in Human Relations* (3 credits)

Prerequisite: 24 university credits including AHSC 220, 230 or enrolment in the Major or Minor in Interdisciplinary Studies in Sexuality. This course provides students with knowledge of physical and psychosocial aspects of sexuality in relationships through life and examines values, attitudes, and issues related to the development and expression of sexuality. Topics include gender, family, cultural and media influences; historically and culturally based attitudes; prevention and sexually transmitted diseases; self-perception and identity in sexuality; and emotion and sexuality. The course aims to foster respect for persons and diversity.

NOTE: Students who have received credit for AHSC 253 may not take this course for credit.

AHSC 313 *Family Communication* (3 credits)

Prerequisite: AHSC 220, AHSC 230. This course is a requirement for students enrolled in the Certificate in Family Life Education. This course is an examination of patterns, effective approaches, and issues in communication among persons in primary partnerships and families. It also explores topics such as diversity in forms of "family," decision-making, problem-solving, power relations, gender issues, managing differences in expectations, and the influences of cultural, social, and economic contexts.

NOTE: Students who have received credit for AHSC 254 may not take this course for credit.

AHSC 314 *Adolescence: Issues and Intervention* (3 credits)

Prerequisite: AHSC 220. This course links knowledge of adolescent development to a more detailed examination of related adolescent patterns and issues, including peer relations and friendship, parental and family relations, identity, sexuality and gender, and socio-economic and cultural influences. Directed towards students interested in working with adolescents, the course combines theoretical and practical knowledge relating to adolescents, their parents and their concerns for the purpose of enhancing the adolescent experience.

AHSC 315 *Interviewing* (3 credits)

Prerequisite: AHSC 230. This course reviews different forms and concepts relevant to interviewing for use in work and community settings. It examines communication influences on the interviewer and interviewee and the limitations of different interview approaches. It enables students to structure and design interviews, to build rapport, and to manage information flow.

NOTE: Students who have received credit for AHSC 256 may not take this course for credit.

AHSC 316 *Adulthood: Patterns and Transitions* (3 credits)

Prerequisite: AHSC 220. This course examines relationships, transitions, and developmental change through early adulthood and middle age. Relevant adult development theories are reviewed. Students explore the nature and significance of close relationships, life transitions, choices and contextual influences. This course includes a consideration of the societal values inherent in notions of maturity, optimal environments, and interventions to enhance quality of life.

AHSC 319 *Older Adulthood: Issues and Intervention* (3 credits)

Prerequisite: AHSC 220. This course explores developmental change patterns and differences among people in older adulthood. Topics include retirement and pensions, concepts of health, fitness, well-being and models of health care, housing and transportation, leisure, family and social relations, ethnicity and aging, loss and grief, death and dying. Designed for persons interested in working with older adults, the course fosters awareness of myths, stereotypes and ageism, and emphasizes an attention to community social support and interventions which are enabling.

AHSC 320 *Family and Youth Legislation* (3 credits)

Prerequisite: AHSC 220. This course reviews all aspects of federal and provincial legislation that impact on practice with families. Legislation governing marriage, divorce and custody, family violence, child and youth protection and placement, youth crime, child advocacy and the challenges of working with families in relation to the legislation, are presented with a particular focus on the rights of children and the legal responsibilities of practitioners.

AHSC 321 *Historical Foundations of Leisure and Recreation* (3 credits)

Prerequisite: 24 university credits including AHSC 241. This course offers an overview of leisure and recreation throughout history, highlighting selected major trends among different historical eras. This includes the historical and philosophical roots of leisure, the conditions in society that have affected leisure, the responses to those conditions, and the role of leisure in contemporary life.

This course offers an opportunity to analyze the values, beliefs and ethics relating to leisure that shape modern traditions and cultures.

NOTE: Students who have received credit for AHSC 215, HIST 215, PHIL 255 or for this topic under an AHSC 298 number may not take this course for credit.

AHSC 322 *Fundamentals of Child- and Youth-Care Work* (3 credits)

Prerequisite: AHSC 220. The objectives of this course are to provide students with an understanding of the scope and status of child- and youth-care work, to sensitize them to the necessary competencies and daily challenges of this work in a range of settings, and to review relevant theory. An overview of the history of the field is provided, as well as a review of seminal writings and recent literature on best practices.

NOTE: Students who have received credit for AHSC 402 or for this topic under an AHSC 398 number may not take this course for credit.

AHSC 323 *Gender and Leisure* (3 credits)

Prerequisite: 24 university credits including AHSC 241 or 242. This course focuses on theory and empirical research concerning the relationships between gender and leisure. This includes topics such as the effect of gender on leisure meanings, constraints to leisure, and participation in leisure. In addition, this course explores the cultural influences of leisure related to gender identity and gender relations. As part of this, the course explores the role that leisure plays as a significant site for the social construction and contestation of gender. Emphasis is placed on understanding ways in which gender relations and gender role expectations affect and are affected by leisure.

AHSC 330 *Leadership and Facilitation in Small Groups* (6 credits)

Prerequisite: AHSC 232, 260. This course develops facilitative skills and approaches to leadership in small groups. Students learn effective ways to observe and to interpret the significance of group behaviour for the purpose of intervening effectively. It introduces students to program design theory for human and social service organizations and program design principles and practices relevant to small group learning. The course highlights factors optimizing participation, patterns of communication and influence, decision-making, problem-solving, collaborative planning, conflict management, and effects of gender and other identity-related differences. Students identify their leadership styles and group facilitation skills to develop flexibility in adapting to diverse group situations.

AHSC 332 *Organization Development I* (3 credits)

Prerequisite: AHSC 230, 270. This course introduces students to the characteristics of organizations as open systems. The evolution of organization development and the principle theories and perspectives that have helped to define the field are studied. Organization development methods as well as criteria for examining organizational effectiveness, underlying beliefs, values, and assumptions are examined. It introduces students to training and design theories relevant to organizational learning. Key concepts covered are organization vision, mission and goals, and organization norms and culture.

NOTE: Students who have received credit for AHSC 420 or 423 may not take this course for credit.

AHSC 333 *Leisure and the Environment* (3 credits)

Prerequisite: 24 university credits including AHSC 241 or 242. This course examines the state of the natural environment, and explains how leisure service providers play a crucial leadership role in fulfilling the needs of both the public and the environment.

AHSC 335 *Power and Conflict Resolution in Human Systems* (3 credits)

Prerequisite: 24 university credits. This course gives students a theoretical and practical overview of the role of power and conflict in human relationships and human systems — groups, organizations, and communities. The concept of power is explored in depth since the use of power is central in both the creation and the resolution of conflict. The course focuses on the development of analytical tools that serve to identify the different elements leading to, maintaining or escalating conflicts. Particular attention is given to ethics associated with the use of power and management of conflict.

AHSC 343 *Community Development I* (3 credits)

Prerequisite: AHSC 230, 270. This course examines the field of community development through the presentation of basic models. The examination of these models in historical and environmental contexts focuses on understanding how they reflect different views of social relationships. Students explore different approaches to working with communities and the implications for practice. The course introduces students to design theory relevant to community development. Students also examine ways of analyzing and defining community resources, problems, and issues.

NOTE: Students who have received credit for AHSC 440 or 443 may not take this course for credit.

AHSC 350 *Leisure Education in Therapeutic Recreation and Leisure Services* (3 credits)

Prerequisite: AHSC 241, 260. This course offers an introduction to the field of leisure education in therapeutic recreation and leisure services. The history and underlying philosophy of the concept is presented. The roles of the school, community, and community-serving agencies are examined. Existing models are analyzed and discussed.

AHSC 355 *Foundations of Family Life Education* (3 credits)

Prerequisite: AHSC 232; AHSC 260 and 313 previously or concurrently. This course examines Family Life Education from its inception as a field of practice to its current status in North America. It highlights complex related issues and the role of the educator, including attention to personal values and ethical principles of the practitioner. Topics include distinctions between prevention education and therapeutic intervention, and an overview of the range of different family life education programs and current practices.

AHSC 360 Play, Adult Learning and Development (3 credits)

Prerequisite: 24 university credits including AHSC 220. This course examines the concept of play in adult learning and development. Gender, age, ethnic and social class diversity are explored as they relate to adult play behaviour.

AHSC 361 Leisure Services Leadership (3 credits)

Prerequisite: AHSC 230, 241. This course offers an analysis of leadership theory and its application to leisure services. Major topics are the principles and practices of leadership, group dynamics, leadership skill development and program planning, and the unique role of the leisure leader.

AHSC 370 Organizational Development and Change: Models and Methods (3 credits)

Prerequisite: AHSC 270, 332. The focus of this course is on the practice of human system intervention from a pragmatic as well as a theoretical perspective. The course emphasizes collaborative strategies for effecting change in human systems within a broad range of intervention alternatives. It focuses on the interventionist's role in effective change strategy development, initiation, management, and evaluation. The course is taught with a special focus on personal and professional values and ethical issues related to human systems intervention.

AHSC 371 Community Recreation Planning (3 credits)

Prerequisite: AHSC 241, 260. The course focuses on the application of recreation planning, theory, and skills. It examines methods and procedures used to assess client needs, design and deliver programs and services, and evaluate their impact. Practical experience is gained through a combination of field experience, project planning, and group work.

AHSC 380 Quantitative Research Methods for Practitioners (3 credits)

Prerequisite: 24 university credits including AHSC 260. This course gives an overview of a range of data collection and analysis strategies which are relevant to collaborative and participative intervention practice. It examines practical considerations for selecting specific quantitative approaches and prepares students to formulate and administer intervention-related questionnaires, to conduct basic quantitative analyses, and to present data results to interested individuals and groups. The course also examines basic ethical requirements in conducting applied social research.

AHSC 381 Concepts in Therapeutic Recreation Programming (3 credits)

Prerequisite: 24 university credits including AHSC 241, 260, 281. This course explores current therapeutic recreation practices with emphasis on rehabilitation in community and clinical settings such as hospitals, group homes, psychiatric centres, rehabilitation clinics, and correctional centres. Leisure planning and assessment models are studied to identify the modes of recreational activity which may be used as an intervention.

AHSC 382 Qualitative Research Methods for Practitioners (3 credits)

Prerequisite: 24 university credits including AHSC 260. This course gives an overview of a range of qualitative approaches to practical projects and interventions. It prepares students to design and conduct interviews (including making decisions about respondent selection) with individuals and in focus groups, as well as participant observation. It also enables students to analyze qualitative data from these sources as well as documentary sources in light of practical project purposes. The course highlights special ethical considerations in conducting qualitative forms of applied social research.

AHSC 383 Therapeutic Recreation and Physical Disabilities (3 credits)

Prerequisite: AHSC 220, 281. This course gives an overview of the role and impact of therapeutic recreation services for individuals with physical disabilities and limitations. It analyzes the barriers to recreation participation along with the planning and designing of a safe and accessible recreational environment.

AHSC 384 Therapeutic Recreation: Cognitive Disabilities and Illness (3 credits)

Prerequisite: AHSC 220, 281. This course gives an overview of the role of therapeutic recreation services for individuals with cognitive disabilities and limitations or illness. It focuses on the etiology, impact, and barriers related to specific conditions. It also studies legislation trends and resources for community recreation integration and the role of transitional programs.

AHSC 385 Social Psychology of Leisure (3 credits)

Prerequisite: 24 university credits including AHSC 241. This course deepens students' understanding of how personal and social factors shape individuals' perceptions and experiences of recreation and leisure. Students engage in a critical review of current theory and research focusing on the relationship between leisure and individual functioning, and applications to human problems associated with leisure.

NOTE: Students who have received credit for AHSC 285, PSYC 286 or for this topic under an AHSC 298 number may not take this course for credit.

AHSC 398 Selected Topics in Applied Human Sciences (3 credits)**AHSC 399 Selected Topics in Applied Human Sciences** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

AHSC 400 Advanced Facilitation and Ethics (3 credits)

Prerequisite: AHSC 330. This course examines in-depth special challenges in facilitating groups (e.g. youth groups, workplace training, and education programs) and develops advanced skills in facilitation and the development of process tools and designs. Special consideration is given to planning for diversity, working with difficult group dynamics, and other factors. Ethical principles and practices of working with people are also explored.

AHSC 403 Cultivating Creativity and Social Innovation (3 credits)

Prerequisite: AHSC 232 or 361. This course explores the multi-faceted nature of creativity and its cultivation as a method of personal and professional development. Drawing upon current theories and conceptions about creativity, both individual and social, this course identifies strategies to enhance creativity in human systems in order to improve engagement and quality of life. Social innovation as a dimension of community and organizational creativity is examined in depth.

AHSC 411 Social Change and Analysis Methods (3 credits)

Prerequisite: AHSC 260; 332 or 343. This course is designed to enhance students' knowledge and practical abilities in social analysis and community-based research methods as tools for promoting social change in community and organizational contexts. It includes hands-on opportunities to design and present social analysis methods. Course readings include practical and analytical materials.

AHSC 415 Organizational and Community Sustainability (3 credits)

Prerequisite: 45 university credits; AHSC 270 or LOYC 320. This course addresses the requirements and processes necessary to build organizational and community sustainable goals in co-operation with surrounding communities. It provides an introduction to the development of integrated social sustainability and sustainable organizational practices, including sustainability evaluations, the assessment of organizational sustainability status and goals, goal setting, and change processes within a broader, sustainable community context. It acknowledges an integration of multiple layers of organizational (private and public organizations) and community sustainability including recycling and waste awareness, best sustainable practices in industries and logistics, biodiversity, human diversity and social innovation in the context of sustainable development of communities and organizations.

AHSC 421 Political and Legal Aspects of Leisure Services (3 credits)

Prerequisite: 30 university credits including AHSC 241. This course provides students with a theoretical understanding of the complexity of providing leisure services in the province of Quebec. The course examines the administration of leisure services in municipal, regional, provincial, and federal governments. The course examines law as it applies to aspects of recreational activities in the areas of organization, supervision, and participation. The course covers the Quebec Civil Code, the Canadian Constitution, and the Quebec and Canadian Charter of Rights and Freedoms as they apply to the study of leisure.

AHSC 422 Youth and Leisure (3 credits)

Prerequisite: 30 university credits including AHSC 220, 241, 260. This course develops an understanding of the leisure needs of youth from emotional, physical, psychological, and sociological perspectives. Major areas of discussion include leisure preferences and needs assessment, strategies for programming, dealing with youth-at-risk, and recreational opportunities for youth. Lectures and laboratory.

AHSC 425 Organization Development II (3 credits)

Prerequisite: AHSC 330 previously or concurrently; AHSC 332. This course provides students with the opportunity to apply organization development concepts and strategies to effect change in organizations. Using theoretical, case, and experiential approaches, the focus of instruction progressively guides the student through the stages of organization development. Concepts covered include entry and contracting, identifying organizational issues and goals for change, collecting and analyzing pertinent organizational data, and diagnosis and feedback to the client. Opportunities for the development of change-agent skills are provided through the emphasis on in-class applications.

NOTE: Students who have received credit for AHSC 420 may not take this course for credit.

AHSC 427 Administration of Therapeutic Recreation and Leisure Services (3 credits)

Prerequisite: 60 university credits including AHSC 361; AHSC 371 or 381. This course offers an analysis of the processes involved in planning and managing therapeutic recreation and leisure service delivery systems. Topics to be studied include principles of planning, organization, budgeting, and supervision.

AHSC 431 Recreation and Leisure Studies Seminar (3 credits)

Prerequisite: 60 university credits including AHSC 321, 361, 371, 385. This is a third-year interdisciplinary seminar in which students can tie together all they have learned in the Recreation and Leisure Studies program. Additionally, students are set on a course of study that should continue after they graduate so that they can keep up with future developments in this area.

AHSC 432 Seminar in Therapeutic Recreation (3 credits)

Prerequisite: 60 university credits including AHSC 321, 361, 381, 383, 384. This is a third-year interdisciplinary seminar in which students can tie together all that they have learned in the Therapeutic Recreation program. Additionally, students are set on a course of study that should continue after they graduate so that they can keep up with future developments in this area.

AHSC 435 Fieldwork Practice (3 credits)

Prerequisite: AHSC 330. This course must be taken in final year. This course provides an opportunity for students to integrate theory into practice in the design, facilitation and evaluation of small group process. Students lead one small task or learning group in a community, an organizational or an institutional setting. The fieldwork is combined with class sessions for orientation, supervision, reflection and evaluation.

AHSC 436 Internship in Youth and Family Work (6 credits)

Prerequisite: 60 university credits including AHSC 330; AHSC 322 or 355; and AHSC 465 previously or concurrently; permission of the Department. This course is one of two internship options for students enrolled in the Specialization in Human Relations. This internship provides students with a supervised opportunity to apply learning from the BA Specialization in Human Relations to work with youth and families in a range of settings such as child welfare, schools, non-profit organizations, residential care, or outreach. The specific objectives are to teach about planning, education, and intervention in human service work, to promote self-reflection as a critical component of ethical practice, and to provide a basis for further career planning and/or graduate work in youth and family practice.

NOTE: Students who have received credit for AHSC 439 or for this topic under an AHSC 499 number may not take this course for credit.

AHSC 437 Internship in Recreation and Leisure Studies (6 credits)

Prerequisite: 60 university credits including AHSC 361, 371; permission of the Department. This course provides students with an opportunity to design, implement, and evaluate programs; to facilitate groups in a variety of settings; and to establish working relationships with field personnel. In consultation with their supervisors, students select a site related to their learning interests. Students learn to develop and manage their own project and to self-assess their work. The course includes fieldwork, seminars, and team meetings.

AHSC 438 Internship in Therapeutic Recreation (9 credits)

Prerequisite: 60 university credits including AHSC 361, 381, 383, 384; permission of the Department. This course provides students with an opportunity to design, implement, and evaluate programs, to facilitate groups in a variety of settings, and to establish working relationships with field personnel. In consultation with their supervisors, students select a site related to their learning interests. Students learn to develop and manage their own project and to self-assess their work. The course includes fieldwork, seminars, and team meetings.

AHSC 439 Internship in Human Relations (6 credits)

Prerequisite: 60 university credits including AHSC 330; and either AHSC 225 and 400, 332 and 425, or 343 and 445 previously or concurrently; permission of the Department. This course is one of two internship options for students enrolled in the Specialization in Human Relations. This course provides students with an opportunity to design, implement, and evaluate small group leadership in several settings, and to negotiate working relationships with site personnel. Students will be solely responsible for facilitating several task or learning groups in community, work, or educational settings. The sites will be selected according to students' learning interests and in consultation with the course instructor. The course includes supervisory team meetings and internship seminar sessions.

NOTE: Students who have received credit for AHSC 436 or for this topic under an AHSC 499 number may not take this course for credit.

AHSC 442 Community Development and Leisure (3 credits)

Prerequisite: 30 university credits including AHSC 361; 371 or 381. This course involves the examination of philosophical and theoretical community development approaches in the field of leisure studies. Students explore the numerous elements of community development practice including citizen engagement, relationship building, and community capacity. Students develop their understanding of current trends in community development and critically examine its implications for practice in the context of leisure.

AHSC 444 The Older Adult and Leisure (3 credits)

Prerequisite: 30 university credits including AHSC 220, 241, 260. This course examines the aging process in the physical, cognitive, and affective domains. It familiarizes the student with the characteristics of the aging population as related to leisure, recreation, and lifestyle. It focuses on developing and understanding the impact of lifelong leisure in the aging process. The course reviews issues related to the phenomenon of leisure in retirement and discusses the process of delivering leisure services to older individuals.

AHSC 445 Community Development II (3 credits)

Prerequisite: AHSC 330 previously or concurrently; AHSC 343. This course focuses on how to intervene in community contexts; identify community structures and inter-group dynamics relevant to intervention planning; gather and organize data for use by communities; develop intervention plans that involve the community each step of the way and that foster leadership within its ranks; and evaluate an intervention. Attention is given to cultural diversity and value differences.

NOTE: Students who have received credit for AHSC 440 may not take this course for credit.

AHSC 450 Therapeutic Recreation Assessment and Leisure Counselling (3 credits)

Prerequisite: 30 university credits including AHSC 281. This course focuses on the use of assessment applied to individual leisure abilities, interests and needs, and the application of counselling theory to the field of therapeutic recreation and leisure services. A variety of assessment tools are analyzed/interpreted. Theories, models, and methods of therapeutic recreation and leisure counselling are discussed.

AHSC 451 *Counselling Skills and Concepts* (6 credits)

Prerequisite: 45 university credits including AHSC 220, 230. This course advances students' understanding of core counselling theories and develops an understanding for theoretical and value frameworks of the helping relationship. It fosters the application of essential helping relationship skills applicable in everyday relationships in work and social settings. Skill areas include attending skills, such as attending to non-verbal behaviour, reflection of content, reflection of feeling, paraphrasing and summarizing; and influencing skills, such as interpretation and analysis. Also highlighted are ethical issues and attention to cultural differences.

NOTE: Students who have received credit for AHSC 351 may not take this course for credit.

AHSC 456 *Advanced Family Life Education* (3 credits)

Prerequisite: AHSC 355. This course covers families' decision-making processes related to the utilization of financial, personal, environmental, and social resources, including time, money, material assets, energy, friends, neighbours, and space, to meet their goals. In particular, this course focuses on how families develop, exchange, and allocate resources throughout the lifespan with the expectation that effective resource management decisions are made from positions of knowledge and understanding.

AHSC 460 *Health Promotion* (6 credits)

Prerequisite: 30 university credits including AHSC 230. This course helps students to develop intervention skills and theoretical understanding in the area of health promotion. It is of particular interest to students whose career interests involve lifestyle planning, health promotion, and stress management. Topics include health and wellness, stress and illness, psychological and physical self-appraisal processes, psychosomatic processes and disorders, understanding addictions and their management, health-promotion interventions, behavioural self-management, and issues in medical/psychological health compliance. Healthy workplace practices and the promotion of community wellness are emphasized.

AHSC 465 *Parent-Child Relations* (3 credits)

Prerequisite: 45 university credits including AHSC 232, 313, 380. This course provides an advanced understanding of parenting theories, research, and applications in the context of parent-child relations over the life span. Topics include parenting rights and responsibilities, parenting practices and programs, high-risk parenting, and parental assessment.

NOTE: Students who have received credit for this topic under an AHSC 498 number may not take this course for credit.

AHSC 470 *Basic Human Relations Laboratory* (3 credits)

Prerequisite: 60 university credits including AHSC 330. This is an intensive format six-day learning session through which students may expect to increase their awareness of how their behaviour affects others, increase their skill and understanding of effectively and responsibly communicating to and exchanging feedback with others, increase their understanding of leadership and authority relations, and deepen their understanding of group dynamics.

AHSC 475 *Organizational and Community Leadership: A Systems Approach* (3 credits)

Prerequisite: AHSC 330. This course is an introduction to the practice of leadership in organizations and communities with a human systems approach and perspective. It examines a range of theoretical concepts current in organizational leadership practice including systems thinking, team-based leadership, transformational models of leadership, and strategy formulation from a leadership perspective. It provides an opportunity for students to examine ethics, values, and abilities required in organizational leadership today.

NOTE: Students who have received credit for AHSC 375 may not take this course for credit.

AHSC 490 *Independent Study I* (3 credits)

Prerequisite: 30 university credits; permission of the Department. Students work on topics in consultation with a study supervisor. The study may include readings, field studies, and/or research.

AHSC 491 *Independent Study II* (3 credits)

Prerequisite: 30 university credits; permission of the Department. A student who has received credit for AHSC 490 may register for AHSC 491.

AHSC 498 *Advanced Topics in Applied Human Sciences* (3 credits)**AHSC 499 *Advanced Topics in Applied Human Sciences*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

Faculty

Chair

SELVADURAI DAYANANDAN, PhD *Boston University*; Professor

Distinguished Professor Emerita

ELAINE B. NEWMAN, PhD *Harvard University*

Professors

CHRISTOPHER BRETT, PhD *Johns Hopkins University*

GRANT BROWN, PhD *Memorial University of Newfoundland*

EMMA DESPLAND, PhD *University of Oxford*

DYLAN FRASER, PhD *Université Laval*

JAMES GRANT, PhD *University of Guelph*

PATRICK J. GULICK, PhD *University of California, Davis*

MICHAEL T. HALLETT, PhD *University of Victoria*

VINCENT MARTIN, PhD *University of British Columbia*; Provost's Distinction

PEDRO PERES-NETO, PhD *University of Toronto*

MICHAEL SACHER, PhD *McGill University*

PASCALE SICOTTE, PhD *Université de Montréal*

VLADIMIR TITORENKO, PhD *Institute for Genetics and Selection of Industrial Microorganisms, Moscow*

ADRIAN TSANG, PhD *York University*

ROBERT WELADJI, PhD *Norwegian University of Life Sciences*

MALCOLM WHITEWAY, PhD *University of Alberta*; Provost's Distinction

WILLIAM ZERGES, PhD *Princeton University*

Associate Professors

DAVID KWAN, PhD *University of Cambridge*

JIN SUK LEE, PhD *University of British Columbia*

JEAN-PHILIPPE LESSARD, PhD *University of Tennessee*

ALISA PIEKNY, PhD *University of Calgary*

DAVID WALSH, PhD *Dalhousie University*

Assistant Professors

BRANDON HELFIELD, PhD *University of Toronto*

AASHIQ H. KACHROO, PhD *Indian Institute of Science (Bangalore)*

ERIC PEDERSEN, PhD *McGill University*

LAURENT POTVIN-TROTTIER, PhD *Harvard University*

CARLY D. ZITER, PhD *University of Wisconsin-Madison*

Senior Lecturers

IAN FERGUSON, PhD *Concordia University*

MADOKA GRAY-MITSUMUNE, PhD *University of British Columbia*

Lecturer

DONALD GRAY STIRLING, PhD *University of Maryland*

Affiliate Professor

ANNE-HÉLÈNE PRIEUR-RICHARD, PhD *Université des Sciences et Techniques du Languedoc, Montpellier*

Affiliate Associate Professors

CATHERINE BACHEWICH, PhD *York University*

DAVID MARCOGLIESE, PhD *Wake Forest University*

PATRICK PARÉ, MSc *Université Laval*

CUNLE WU, PhD *McGill University*

Affiliate Assistant Professors

TONIA DE BELLIS, PhD *Concordia University*

CHIARA GAMBERI, PhD *University of Verona*

ANTOINE O.H.C. LEDUC, PhD *Concordia University*

For the complete list of faculty members, please consult the Department website.

Location

Loyola Campus

Richard J. Renaud Science Complex, Room: SP 375.19
514-848-2424, ext. 3400

Department Objectives

The Biology Department is dedicated to teaching and research that advance understanding of life from molecules and cells to organisms, populations, and entire ecosystems. The Department's programs inspire students with an appreciation of the rich diversity of the living world.

Students acquire a comprehensive grounding in modern biology through classroom study as well as extensive hands-on training in research methodology. A variety of specialized laboratories and equipment supports both research and teaching activities.

Programs

The Biology Department offers Honours and Specialization programs in Biology, Cell and Molecular Biology, Ecology, Environmental and Sustainability Science, and Systems and Information Biology, as well as Major and Minor programs in Biology. Students planning a career or graduate studies in the biological sciences normally follow the appropriate honours or specialization program. The major program is designed for students who wish to study biology and either obtain a more general education or pursue an additional program in another discipline. The major program can be combined with a major in another department.

Students registered in the Honours, Specialization, or Major in Biology may select Biology electives in various subject areas in order to obtain a broad overview of the discipline. However, it is possible for students to pursue in-depth studies in specific areas such as animal biology, plant biology, or microbiology and biotechnology.

The minor program can only be taken by students registered in another degree program and provides an opportunity to gain a basic exposure to the main sub-disciplines of Biology or to pursue one such area in some depth.

Students are strongly encouraged to take advantage of academic counselling services available in the Biology Department in order to select the program and courses that best meet their needs. Students may transfer among programs after the first year of study since the core courses in all programs are quite similar.

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

Students seeking admission to the honours program may apply either for direct entry on the University application form or, once in the program, to the departmental honours advisor normally following the completion of 30 credits.

72 BSc Honours in Biology

- 27 BIOL 225³, 226³, 261³, 266³, 367³, 490⁶; CHEM 221^{3*}, 271³
3 Chosen from BIOL 322³; CHEM 212³
12 Chosen from BIOL 227³, 330³, 337³, 340³, 364³, 366³, 371³, 382³, 385³

30 Chosen from Biology credits** at the 300 and/or 400 levels with at least nine credits at the 400 level

NOTE: Biology lab requirement: Students must take at least nine credits from Biology courses with lab components (BIOL 227, 330, 337, 340, 368, 382, 450, 466).

NOTE: Students seeking admission to the honours program may apply either for direct entry on the University application form or, once in another program, to the departmental honours advisor normally following the completion of 30 credits. Admission, retention, and graduation in an honours program requires that the student has a cumulative and last assessment GPA of at least 3.30 with no grade below C.

72 BSc Honours in Cell and Molecular Biology

- 51 BIOL 225³, 226³, 261³, 266³, 364³, 366³, 367³, 368³, 466³, 490⁶; CHEM 212³, 221^{3*}, 222^{3*}, 271³, 375³, 477³
21 Chosen from BIOL 227³; Biology credits** at the 300 and/or 400 levels, with at least 12 credits at the 400 level

NOTE: Biology lab requirement: Students must take at least nine credits from Biology courses with lab components (BIOL 227, 330, 337, 340, 368, 382, 450, 466).

NOTE: Students seeking admission to the honours program may apply either for direct entry on the University application form or, once in another program, to the departmental honours advisor normally following the completion of 30 credits. Admission, retention, and graduation in an honours program requires that the student has a cumulative and last assessment GPA of at least 3.30 with no grade below C.

72 BSc Honours in Ecology

- 30 BIOL 225³, 226³, 261³, 266³, 322³, 367³, 490⁶; CHEM 221^{3*}, 271³
12 Chosen from BIOL 227³, 330³, 337³, 340³, 364³, 366³, 371³, 382³, 385³
12 Chosen from BIOL 321³, 350³, 351³, 353³, 354³; GEOG 363³
9 Chosen from BIOL 450³, 451³, 452³, 457³, 459³, 473³; GEOG 463³

9 Chosen from Biology credits** at the 300 and/or 400 levels

NOTE: Biology lab requirement: Students must take at least nine credits from Biology courses with lab components (BIOL 227, 330, 337, 340, 368, 382, 450, 466).

NOTE: Students seeking admission to the honours program may apply either for direct entry on the University application form or, once in another program, to the departmental honours advisor normally following the completion of 30 credits. Admission, retention, and graduation in an honours program requires that the student has a cumulative and last assessment GPA of at least 3.30 with no grade below C.

69 BSc Honours in Environmental and Sustainability Science

33 Credits of core courses:

9 BIOL 225³, 226³; GEOG 290³

3 GEOG 264³

6 GEOG 272³; GEOL 210³

6 CHEM 212³ or 217³; CHEM 283³

6 BIOL 322³; GEOG 363³

3 BIOL 487³

36 Credits in Environmental Biology Stream:

9 Chosen from BIOL 227³, 261³, 321³, 351³, 353³; CHEM 271³; GEOG 371³, 374³; URBS 338³

6 Chosen from BIOL 330³, 337³, 340³, 354³, 367³; GEOG 375³, 377³, 378³; GEOL 302³

3 GEOG 463³ or 465³

12 Chosen from BIOL 422³, 423³, 450³, 451³, 452³, 457³, 459³, 473³; CHEM 458³; GEOG 470³, 475³, 476³, 478³, 479³

6 BIOL 490⁶

NOTE: Students seeking admission to the honours program may apply either for direct entry on the University application form or, once in another program, to the departmental honours advisor normally following the completion of 30 credits. Admission, retention, and graduation in an honours program requires that the student has a cumulative and last assessment GPA of at least 3.30 with no grade below C.

73 BSc Honours in Systems and Information Biology

24 BIOL 261³, 266³, 322³, 367³, 368³; CHEM 212³, 221^{3*}, 271³ (*Molecular Biology module*)

13 COMP 232³, 248^{3,5}, 249^{3,5}, 352³ (*Computer Science module*)

12 BIOL 422³, 479³, 480³, 481³ (*Genomics and Biological Data Sciences module*)

3 ENCS 333³

6 Chosen from BIOL 490⁶; BIOL/COMP 493⁶ (*Research Experience module*)

15 Chosen from BIOL 225³, 226³ or any Biology credits** at the 300/400 level or from the list of approved Computer Science (COMP) and Computer Engineering (COEN) courses (see below for list) with at least 9 credits at the 400 level

NOTE: Students seeking admission to the honours program may apply either for direct entry on the University application form or, once in another program, to the departmental honours advisor normally following the completion of 30 credits. Admission, retention, and graduation in an honours program requires that the student has a cumulative and last assessment GPA of at least 3.30 with no grade below C.

60 BSc Specialization in Biology

21 BIOL 225³, 226³, 261³, 266³, 367³; CHEM 221^{3*}, 271³

3 Chosen from BIOL 322³; CHEM 212³

12 Chosen from BIOL 227³, 330³, 337³, 340³, 364³, 366³, 371³, 382³, 385³

24 Chosen from Biology credits** at the 300 and/or 400 levels with at least six credits at the 400 level

NOTE: Biology lab requirement: Students must take at least nine credits from Biology courses with lab components (BIOL 227, 330, 337, 340, 368, 382, 450, 466).

66 BSc Specialization in Cell and Molecular Biology

45 BIOL 225³, 226³, 261³, 266³, 364³, 366³, 367³, 368³, 466³; CHEM 212³, 221^{3*}, 222^{3*}, 271³, 375³, 477³

21 Chosen from BIOL 227³; Biology credits** at the 300 and/or 400 levels, with at least 12 credits at the 400 level

NOTE: Biology lab requirement: Students must take at least nine credits from Biology courses with lab components (BIOL 227, 330, 337, 340, 368, 382, 450, 466).

60 BSc Specialization in Ecology

24 BIOL 225³, 226³, 261³, 266³, 322³, 367³; CHEM 221^{3*}, 271³

12 Chosen from BIOL 227³, 330³, 337³, 340³, 364³, 366³, 371³, 382³, 385³

9 Chosen from BIOL 321³, 350³, 351³, 353³, 354³; GEOG 363³

6 Chosen from BIOL 450³, 451³, 452³, 457³, 459³, 473³; GEOG 463³

9 Chosen from Biology credits** at the 300 and/or 400 levels

NOTE: Biology lab requirement: Students must take at least nine credits from Biology courses with lab components (BIOL 227, 330, 337, 340, 368, 382, 450, 466).

63 BSc Specialization in Environmental and Sustainability Science

33 Credits of core courses:

9 BIOL 225³, 226³; GEOG 290³

3 GEOG 264³

- 6 GEOG 272³; GEOL 210³
 6 CHEM 212³ or 217³; CHEM 283³
 6 BIOL 322³; GEOG 363³
 3 BIOL 487³
- 30 Credits in Environmental Biology Stream:*
- 9 Chosen from BIOL 227³, 261³, 321³, 351³, 353³; CHEM 271³; GEOG 371³, 374³; URBS 338³
 6 Chosen from BIOL 330³, 337³, 340³, 354³, 367³; GEOG 375³, 377³, 378³; GEOL 302³
 3 GEOG 463³ or 465³
 12 Chosen from BIOL 422³, 423³, 450³, 451³, 452³, 457³, 459³, 473³; CHEM 458³; GEOG 470³, 475³, 476³, 478³, 479³

- 61 BSc Specialization in Systems and Information Biology**
- 21 BIOL 261³, 266³, 322³, 367³; CHEM 212³, 221^{3*}, 271³ (*Molecular Biology module*)
 13 COMP 232³, 248^{3.5}, 249^{3.5}, 352³ (*Computer Science module*)
 9 BIOL 479³, 480³, 481³ (*Genomics and Biological Data Sciences module*)
 3 ENCS 333³
- 15 Chosen from BIOL 225³, 226³ or any Biology credits** at the 300/400 level or from the list of approved Computer Science (COMP) and Computer Engineering (COEN) courses (see below for list) with at least 9 credits at the 400 level which may include BIOL 490⁶ or 493⁶
- 45 BSc Major in Biology**
- 21 BIOL 225³, 226³, 261³, 266³, 367³; CHEM 221^{3*}, 271³
 3 Chosen from BIOL 322³; CHEM 212³
 9 Chosen from BIOL 227³, 330³, 337³, 340³, 364³, 366³, 371³, 382³, 385³ with at least six credits from courses with lab components (227, 330, 337, 340, 382)
 12 Chosen from Biology credits** at the 300 and/or 400 levels with at least three credits at the 400 level
- 24 Minor in Biology**
- 9 BIOL 225³, 226³, 227³
 3 Chosen from BIOL 206³, 261³
 12 Biology elective credits

*Students entering the program with Cegep Organic Chemistry must replace these credits with an equivalent number of credits in Biology program electives.

**In addition to BIOL courses at the 300 and 400 levels, these courses can include the following CHEM courses: 212, 222 (counting as a 300-level elective), 326, 335, 375, 425, 470, 471, 472, 475, 476, 477, 478, 481. CHEM 498 may be included if the topic is approved by formal student request through the Biology departmental advisor.

List of available and approved COMP/COEN courses

- | | |
|----------|--|
| COMP 335 | Introduction to Theoretical Computer Science (3 credits) |
| COMP 339 | Combinatorics (3 credits) |
| COMP 348 | Principles of Programming Languages (3 credits) |
| COMP 353 | Databases (4 credits) |
| COMP 472 | Artificial Intelligence (4 credits) |
| COMP 478 | Image Processing (4 credits) |
| COEN 432 | Applied Evolutionary and Learning Algorithms (3 credits) |
| COEN 433 | Biological Computing and Synthetic Biology (3 credits) |
| COEN 434 | Microfluidic Devices for Synthetic Biology (3 credits) |

Biology Co-operative Program

Director

MADOKA GRAY-MITSUMUNE, Senior Lecturer

The Biology co-operative program is offered to students who are enrolled in the BSc Honours or Specialization in Biology; Cell and Molecular Biology; Ecology; Environmental and Sustainability Science; and Systems and Information Biology. Students interested in applying for the Biology co-op should refer to §24 where a full description of the admission requirements is provided.

Academic content is identical to that of the regular program, but study terms are interspersed with three work terms.

Students are supervised personally and must meet the requirements specified by the Faculty of Arts and Science and the Institute for Co-operative Education in order to continue their studies in the co-op format.

Liaison between the student, the employers and the Institute for Co-operative Education is provided by the Biology co-op committee, which includes the student's advisors.

Please refer to §24 for additional information.

Courses

BIOL 200 *Fundamentals of Human Biology* (3 credits)

A series of lectures, demonstrations, and seminars to provide non-biologists with a general survey of the fundamental principles of life, with special emphasis on the structures and functions of human beings. Lectures only.

NOTE: Students registered in a Biology or Biochemistry program may not take this course for credit. Students who have completed Cegep Biology 921/931 may not take this course for credit.

BIOL 201 *Introductory Biology* (3 credits)

Fundamentals of plant and animal biology: basic physics and chemistry of life; cell and tissue structures and functions; anatomy and physiology of human systems; survey of plant and animal taxonomy, ecology, heredity, and evolution. Lectures and laboratory.

NOTE: Students with Cegep Biology 301 or equivalent may not take this course for credit. Students entering BIOL programs without Cegep Biology 301 or equivalent must take this course, but not for program credit.

BIOL 202 *General Biology* (3 credits)

This course presents the fundamentals of biology including the basic physics and chemistry of life, the structure and functions of cell and tissues, and aspects of anatomy, physiology, taxonomy, heredity and evolution, with examples ranging from micro-organisms to humans. Lectures only.

NOTE: Students with Cegep Biology 301, 101-NYA or BIOL 201 may not take this course for credit. Students enrolled in BSc programs may not take this course for credit.

BIOL 203 *Fundamental Nutrition* (3 credits)

This course deals with food composition (carbohydrates, lipids, proteins, vitamins, and minerals), its absorption and utilization, energy balance, special diets, and food technology. Lectures only.

NOTE: Students registered in a Biology or Biochemistry program may not take this course for credit.

BIOL 205 *(also listed as LOYC 205)****Introduction to Sustainability*** (3 credits)

This course begins with an introduction to the science of ecology and to the concept of sustainability as an ecological principle. The concept of sustainability is then broadened to include humans, as students are introduced to ethics, economics, and resource management from an eco-centric point of view. Students are encouraged to think critically about current environmental problems and to take action on an individual project.

NOTE: Students who have received credit for BIOL 208, LOYC 205 or for this topic under a BIOL 298 number may not take this course for credit.

NOTE: Students registered in a Biology program may not take this course for program credit.

BIOL 206 *Elementary Genetics* (3 credits)

A survey of classical and contemporary developments in the study of heredity, with particular attention to human examples. This course is open to the general student body. Lectures only.

NOTE: Students who have received credit for BIOL 261 may not take this course for credit.

NOTE: Students transferring into a Biology program may retain degree credit for this course.

BIOL 225 *Form and Function of Organisms* (3 credits)

Prerequisite: Cegep Biology 301 or 101-NYA or BIOL 201. An introduction to plant and animal form and function is presented. This course provides an overview of basic physiological and morphological aspects of plants and animals that allow survival and reproduction. Topics in animal biology include animal architecture, internal fluids, homeostasis, digestion and nutrition, nervous and chemical coordination; topics in plant biology include plant organization, photosynthesis, respiration, water relations, and growth regulation. Reproduction and development of both plants and animals are introduced. Lectures only.

BIOL 226 *Biodiversity and Ecology* (3 credits)

Prerequisite: Cegep Biology 301 or 101-NYA or BIOL 201. This course introduces the evolution, biodiversity, and ecology of organisms. The origin and diversity of life, from prokaryotes, through simple eukaryotes to multi-cellular organisms are introduced. Natural selection, speciation, and phylogeny, stressing evolutionary relationships in conjunction with changing conditions on earth, are presented. The course introduces major concepts in ecology: the physical and chemical environment, population structure, life histories, species interactions, communities, and ecosystems. Lectures only.

BIOL 227 *Laboratory Studies in Biodiversity* (3 credits)

Prerequisite: BIOL 225; BIOL 226 previously or concurrently. This course reviews the diversity of organisms and introduces methods used in their study. The tutorials focus on key evolutionary mechanisms associated with organism diversity, model organisms that illustrate it and phylogenies that integrate diversity. The laboratory exercises are in basic protocols and may include bacterial classification; the structural diversity of protists; reproductive diversity among fungi; invertebrate internal morphology and behaviour; arthropod and mollusk classification; exercises in vertebrate homology; and studies on plant structure, development and physiology. Laboratory and tutorial.

BIOL 261 *Molecular and General Genetics* (3 credits)

Prerequisite: Cegep Biology 301 or 101-NYA or BIOL 201; 202 NYA or CHEM 205; 202-NYB or CHEM 206. Basic genetic principles, including mechanisms of meiosis and mitosis, Mendelian genetics, recombination, gene mapping, and chromosome rearrangements; an introduction to molecular genetics, including nucleic acid structure and biosynthesis transcription and translation; the course also includes an introduction to recombinant DNA technology and to concepts of population genetics. Lectures and tutorials.

BIOL 266 *Cell Biology* (3 credits)

Prerequisite: Cegep Biology 301 or 101-NYA or BIOL 201; 202-NYB or CHEM 205; 202-NYB or CHEM 206. Structure and functions of the cell and its organelles: cytoskeleton, chromosomes, cell cycle and cell division, organelle biogenesis, molecular motors, trafficking of proteins and membranes, signal transduction, trans-membrane transport, cancer, apoptosis. Lectures only.

BIOL 298 *Selected Topics in Biology* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

BIOL 321 *Evolution* (3 credits)

Prerequisite: BIOL 225, 226. Through readings, discussions, and lectures, students explore the evidence for evolution, as well as current theories for the mechanisms that cause evolutionary change. Topics covered include principles of inheritance and variation, adaptation through natural selection, random processes in evolution, and the role of molecular and macroevolutionary processes in shaping current patterns of biodiversity. Lectures and tutorials.

BIOL 322 *Biostatistics* (3 credits)

Prerequisite: Nine BIOL credits in a Biology major, honours, or specialization program; or enrolment in a BSc Environmental and Sustainability Science program; or permission of the Department. This course examines statistical methods for the biological sciences; experimental design; data description; binomial, Poisson and Normal distributions; statistical inference; hypothesis testing; chi-square; one and two sample tests of the mean; analysis of variance including 2-way and nested ANOVAs; correlation; regression; and analogous non-parametric techniques. Lectures and laboratory.

NOTE: Students who have received credit for COMM 215, ECON 222, GEOG 362, MAST 333, PSYC 316, SOCI 213 or STAT 250 may not take this course for credit.

BIOL 330 *Vertebrate Biology* (3 credits)

Prerequisite: BIOL 225, 226. This course explores how the anatomy, physiology, life history, ecology and behaviour of vertebrates interact to generate animals that function effectively in their environments, and how different vertebrate groups have evolved over the past few hundred million years. Major vertebrate groups discussed are cartilaginous fishes, bony fishes, amphibians, reptiles, birds and mammals. Other special topics on vertebrate biology considered include the role of ecology in vertebrate speciation, vertebrate adaptations to extreme environments, seasonal migrations, human evolution, as well as conservation issues facing different vertebrate groups worldwide.

NOTE: Students who have received credit for BIOL 387 may not take this course for credit.

BIOL 337 *Invertebrate Biology* (3 credits)

Prerequisite: BIOL 225, 226, 227. This course surveys the diversity of invertebrates and their functional systems, emphasizing the basic themes that define each phylum and those that are common to all animals. The course focuses on evolution, life histories, physiology, and anatomy of the major phyla and the diversity of the minor phyla. Lectures and laboratory.

NOTE: Students who have received credit for this topic under a BIOL 398 number may not take this course for credit.

BIOL 340 *Plant Biology* (3 credits)

Prerequisite: BIOL 225, 226. This course surveys the biology of the plant kingdom. Topics include the evolution of the major groups and a comparative analysis of the form (anatomy), function (physiology), and life history of plants. Examples from the local flora are emphasized. Lectures and laboratory.

BIOL 350 *The Ecology of Individuals* (3 credits)

Prerequisite: BIOL 225, 226. This course is designed to introduce students to the diversity of adaptations possessed by individuals which enables them to interact successfully with the abiotic and biotic environment. Major topics include responses to temperature, water, gas exchange, light, and other species. In addition, sensory ecology and escape in time and space are covered. Physiological adaptations are emphasized. Lectures only.

BIOL 351 *Basic Population Ecology* (3 credits)

Prerequisite: BIOL 226. This course introduces the processes which determine the distribution and abundance of individuals in populations. Population growth, density-dependent and density-independent population regulation, survivorship, life history parameters, the population dynamics of competition, predation and parasitism, and the roles of predation and competition in affecting community structure are discussed. Lectures and tutorials.

BIOL 353 *Communities and Ecosystems* (3 credits)

Prerequisite: BIOL 225, 226. This course presents an introduction to biological communities, the processes that maintain them and their emergent properties. Topics include the interactions between abiotic and biotic factors in determining community composition, the concepts of niche and habitat, succession theory, community diversity and stability, energy flow and nutrient cycling. Examples emphasize both aquatic and terrestrial ecosystems, and the major global biomes. Lectures only.

BIOL 354 *Behavioural Ecology* (3 credits)

Prerequisite: BIOL 226. Behavioural ecology is the study of behavioural adaptation. The topics include foraging, anti-predator, fighting, mating, reproductive and social behaviour. Students are introduced to optimality and game theories. Lectures and tutorials.

BIOL 364 *Cell Physiology* (3 credits)

Prerequisite: BIOL 266; CHEM 271. This course covers general and specialized processes at the molecular and cellular level in eukaryotes and prokaryotes; protein folding and degradation, signalling by nerves, bioenergetics (respiration and photosynthesis), cell motility, muscle contraction, eukaryotic cilia and flagella, sensory perception, and fundamental immunology. Lectures only.

BIOL 366 *Mechanisms of Development* (3 credits)

Prerequisite: BIOL 261, 266. This course explores the mechanisms of cellular interactions and genetic control that govern cell differentiation and development in a range of organisms, from simple model systems to mammals. Specific questions address how cell movement and cell recognition take place, how the genome is restricted in differentiation, how cytoplasmic signals influence differentiation, how gradients affect development, how genes control segmentation, and how growth factors and hormones influence development. The role of genetic engineering in the understanding of developmental processes is discussed. The course is based on gaining an understanding of the basic concepts, mechanisms, and experimental tools used in developmental research. Lectures only.

BIOL 367 *Molecular Biology* (3 credits)

Prerequisite: BIOL 261; CHEM 271. This course examines DNA structure, recombinant DNA methodologies, gene structure, transcriptional and post-transcriptional regulation, RNA processing events, translation, chromatin modification, chromatin remodelling and DNA replication. The experimental evidence supporting these concepts is also discussed. Lectures and tutorials.

BIOL 368 *Genetics and Cell Biology Laboratory* (3 credits)

Prerequisite: BIOL 261, 266; CHEM 212 or 217 or BIOL 227. This course introduces students to the basic laboratory techniques of cell biology, microbiology, bacterial genetics, and molecular biology. Experiments include cell membrane functions in red blood cells, bacterial identification, mutagenesis, genetic transformation, gene mapping, DNA isolation and recombinant DNA techniques. Through tutorials, students learn the theory behind techniques and their use in research. Special focus is placed on lab manipulation skill, data organization, and data interpretation. Laboratory and tutorials.

BIOL 371 *Microbiology* (3 credits)

Prerequisite: Six credits chosen from BIOL 226, 261, CHEM 271; or permission of the Department. This course provides an in-depth study of the structure and function of microbes. It emphasizes the genetic and biochemical characteristics of microbes which distinguish them from plants and animals. Consideration is also given to the impact of microbes on the global environment and on the quality of human life. Lectures only.

BIOL 380 *Nutrition* (3 credits)

Prerequisite: CHEM 221, 271. The concept of a balanced diet is studied in relation to caloric content and to protein, lipid, carbohydrate, vitamin, and mineral requirements. The consequences of dietary deficiencies are examined. Special topics such as dieting, organic foods, vitamins, food additives, and toxins are discussed. Lectures only.

BIOL 382 *Comparative Animal Physiology* (3 credits)

Prerequisite: BIOL 225, 226, 266. This course offers a comparative analysis of physiological processes across diverse animal groups at the cellular and systems levels. Topics include endocrinology, muscle contraction, sensory integration, nervous systems, respiration, digestion, and circulation. Lectures and laboratory.

BIOL 385 *Entomology* (3 credits)

Prerequisite: BIOL 225; BIOL 226 previously or concurrently, BIOL 227 recommended. This course introduces the student to the variety and complexity of insect life. Basic classification is followed by a more detailed study of morphology and anatomy, together with some physiological considerations. Other topics such as adaptations for aquatic life and social behaviour are discussed. Laboratories include the identification of insects collected by students, as well as structured laboratory sessions which complement the lectures. Lectures and laboratory.

BIOL 398 *Intermediate Topics in Biology* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

BIOL 421 *(also listed as PHIL 441)****Philosophical Foundations of Biology*** (3 credits)

Prerequisite: Within 45 credits of graduating with a BSc in a Department of Biology honours, specialization or major program. This course helps students critically engage biology's philosophical foundations. Topics typically include the nature of scientific reasoning, testing, and evidence in biology; how best to discover, define, and apply biological concepts; and how to structure the aims of biology to fit our diverse and changing societies.

NOTE: Students who have received credit for PHIL 441 may not take this course for credit.

BIOL 422 *Advanced Statistics for Biological Sciences* (3 credits)

Prerequisite: BIOL 322. Within 45 credits of graduating with a BSc in a Department of Biology honours or specialization. This course presents, explains and provides practice with modern statistical tools applied to biological sciences for data exploration

and hypotheses testing. The course provides students with the theoretical and practical knowledge to decide which techniques are best suited for particular biological problems, to report statistical results in an effective manner, and to apply their understanding to new biological questions. Examples and applications are drawn from a wide range of biological fields including ecology, epidemiology, genetics, molecular biology and genomics. Lectures and laboratory.

NOTE: Students who have received credit for this topic under a BIOL 498 number may not take this course for credit.

BIOL 423 *Scientific Communication* (3 credits)

Prerequisite: BIOL 490 previously or concurrently; permission of the Department. This course is designed to help students improve the clarity, fluency and accuracy of their written and oral scientific work. The course assignments and lessons are designed to develop and improve the following scientific communication skills: (i) research paper writing; (ii) oral presentations; (iii) scientific posters; and (iv) scientific communications to lay persons. Lectures only.

NOTE: This is primarily a graduate course with a limited number of places for undergraduate students depending upon availability.

NOTE: Students who have received credit for this topic under a BIOL 498 number may not take this course for credit.

BIOL 443 *Plant Molecular Genetics* (3 credits)

Prerequisite: BIOL 367. This course covers a survey of specialized topics in plant molecular genetics including plant disease resistance, flower induction, signal transduction, bioinformatics and genetically modified organisms (GMOs) which have strongly influenced plant improvement in modern agriculture through genetic engineering. Lectures only.

BIOL 450 *Techniques in Ecology* (3 credits)

Prerequisite: BIOL 227, 322 or equivalent, and a minimum of six credits from BIOL 321, 350, 351, 353, 354. This course introduces students to a variety of techniques of experimental design, data collection, and quantitative analysis. Students participate in a series of modules, each of which presents experimental and analytical techniques appropriate for one area of modern research in ecology, behaviour, or evolution. Some modules require students to collect and subsequently analyze original data from field or laboratory settings. Modules and their contents may vary from year to year. Tutorials and laboratory.

BIOL 451 *Field Ecology* (3 credits)

Prerequisite: BIOL 322 or equivalent, BIOL 353. This course is designed to give students practical experience working with field-based community ecology. It involves one or two weeks of fieldwork in a research station (mandatory sleepover), followed by weekly meetings during the fall term. Students learn about sampling methods, experimental design, and statistical tools with the aim of estimating and comparing patterns of biological diversity. Students design and implement their own short study in the field. In the weekly meetings, students process samples collected in the field, perform analysis, present their results in the form of oral presentation as well as written assignment. Students reside in a field station during the field-based portion of the course. They are expected to cover the cost of room and board, and other necessary fees. The location and cost of the fieldwork may change from year to year. Interested students must contact the instructor to obtain detailed information.

BIOL 452 *Population and Conservation Genetics* (3 credits)

Prerequisite: BIOL 261; three credits chosen from BIOL 321, 351, 353, 367. Conservation genetics employ the principles of population genetics and systematics to address problems related to conservation of biodiversity. This course examines the main factors that affect genetic variation within and among populations, including natural selection, random genetic drift, mutation and gene flow. The impact of human activities on levels and patterns of genetic variation in both plant and animal communities is discussed. The utility of molecular markers in determining conservation units is examined. Several case studies from the current literature are used to illustrate the many applications of modern molecular techniques in conservation genetics. The course comprises lectures, student presentations, and use of software in genetic data analysis.

BIOL 457 *Conservation Biology* (3 credits)

Prerequisite: A minimum of nine credits chosen from BIOL 321, 350, 351, 353, 354. This course introduces students to the scientific principles of conservation biology, an interdisciplinary science which aims at identifying and managing environmental problems. Topics may include pollution, climate change, farming, renewable resources, designing nature reserves and conserving biodiversity. Course assignments emphasize effective scientific communication, collaboration and problem-solving skills. Lectures and tutorials.

BIOL 459 *Aquatic Ecology* (3 credits)

Prerequisite: BIOL 322 or equivalent, BIOL 353. The course begins with the molecular structure of water and its relationship to life in aquatic ecosystems. Lectures deal with primary and secondary production in streams, lakes, oceans and estuaries. The role of fish in aquatic communities is introduced in the second half of the course and is the subject of a field trip. Lectures, field trips, and laboratory.

BIOL 461 *Advanced Genetics* (3 credits)

Prerequisite: BIOL 367. Through lectures and directed readings in classical and contemporary genetics, students are exposed to research literature and problems in this area. Students probe in greater depth areas of particular interest in order to develop a critical sense and deepen an understanding of past and current work in this field. Lectures only.

BIOL 462 *Immunology* (3 credits)

Prerequisite: BIOL 266, 364, 367. The role of the immune system in maintenance of body homeostasis is presented with particular reference to cells and tissues of the immune system, their organization as well as their structural and functional relationships.

Topics include: maturation and differentiation of B and T lymphocytes; structure and properties of antibodies; immune responses to antigens; genetic aspects of anti-body synthesis; immunological considerations in AIDS, cancer, and autoimmune diseases. Lectures and seminars.

BIOL 463 Comparative Genomics and Genome Evolution (3 credits)

Prerequisite: BIOL 367. This course covers modern comparative genomics including the nature and scope of the various genome projects, gene discovery and data mining, molecular phylogenies, origin of the eukaryotic cell, evolution of gene regulatory networks, concerted evolution, and haplotype mapping. Lectures and seminars.

NOTE: Students who have received credit for this topic under a BIOL 498 number may not take this course for credit.

BIOL 466 Advanced Techniques in Molecular Biology (3 credits)

Prerequisite: BIOL 367, 368. This course covers the theory and practice of modern experimental procedures in molecular biology, including use of restriction enzymes, gene cloning and hybridizations, DNA sequencing, site-directed mutagenesis, RT-PCR, and yeast two-hybrid analysis. Laboratory and tutorials.

BIOL 467 Advanced Cell Biology (3 credits)

Prerequisite: BIOL 266, 364. This course examines selected topics in cell and molecular biology including the growth and division of differentiated and non-differentiated eukaryotic cells. The focus is on the control of cell cycling under normal and abnormal states, such as cancer and viral infection. Lectures only.

NOTE: Students who have received credit for BIOL 464 or this topic under a BIOL 498 number may not take this course for credit.

BIOL 468 Gene Structure (3 credits)

Prerequisite: BIOL 367. This course covers fundamental principles and essential concepts underlying the present understanding of gene expression in eukaryotes. Topics may include the role of RNA transcription, RNA localization, RNA transport and microRNAs in eukaryotic gene regulation; the role of DNA methylation, alternative splicing, the histone code and chromatin remodelling in genomic imprinting and epigenetics; and large scale approaches to understanding gene expression such as high throughput sequencing methods, genome wide profiling of mRNA expression, proteomics, and ChIP and ChIP-ChIP analysis. Lectures only.

BIOL 472 Virology (3 credits)

Prerequisite: BIOL 266, 367. The life cycles of viruses are discussed with emphasis on the molecular basis of their entry into, reproduction in, and exit from host cells. These life cycles are related to the pathogenicity of different groups of viruses to provide an understanding of the variety of viral diseases.

NOTE: Students who have received credit for this topic under a BIOL 498 number may not take this course for credit.

BIOL 473 Environmental Microbiology (3 credits)

Prerequisite: BIOL 371 or 353. This course surveys microbial diversity and ecophysiology with emphasis on how the activities and interactions of individual organisms influence Earth systems at the ecosystem scale. Topics may include the origin and evolution of the biosphere, microbial interactions and ecosystems, nutrient cycling, molecular and genomic methods in environmental microbiology, microbial associations with plants and animals, and the application of microorganisms to environmental sustainability and bioremediation, human welfare, health, and biotechnology. Lectures only.

NOTE: Students who have received credit for this topic under a BIOL 498 number may not take this course for credit.

BIOL 474 Cellular Neuroscience (3 credits)

Prerequisite: BIOL 364. This course familiarizes students with current theory and research in cellular neuroscience through student presentations and discussions of original scientific literature. Topics include neural circuitry, brain genomics, neuronal structure, synaptic plasticity, neurotransmission, and molecular basis of neurological disease. Lectures only.

NOTE: Students who have received credit for this topic under a BIOL 498 number may not take this course for credit.

BIOL 475 (also listed as COEN 433)

Biological Computing and Synthetic Biology (3 credits)

Prerequisite: BIOL 367. This is an interdisciplinary course offered to students who are either in Biology or Electrical and Computer Engineering programs. Students are introduced to the emerging field of synthetic biology and learn to design computational machines that can be implemented in biological media. The term is divided into two phases. In Phase I, Biology students learn basic computer hardware and software concepts, while Engineering students are introduced to gene structure and recombinant DNA technology. In Phase II, all students learn the principles and various applications of cell-based computational machines. Students work in teams to create a project proposal to describe the design of a computational machine using gene regulatory networks. Lectures only.

NOTE: Students who have received credit for COEN 433 or for this topic under a BIOL 498 number may not take this course for credit.

BIOL 476 (also listed as COEN 434)

Microfluidic Devices for Synthetic Biology (3 credits)

Prerequisite: BIOL 367. Students are introduced to microfluidic components (pumps, valves, automation), programming microfluidics, paradigms, and applications for chemical and biological analysis. Introduction to synthetic biology; biological parts and their properties, network structure and pathway engineering, synthetic networks, manipulating DNA and measuring responses, basic

behaviour of genetic circuits, building complex genetic networks; integration of microfluidics and synthetic biology; economic implications. Lectures: three hours per week.

NOTE: Students who have received credit for COEN 434 or for this topic under a BIOL 498 number may not take this course for credit.

BIOL 479 Computational Biology (3 credits)

Prerequisite: BIOL 261; COMP 352. In this course, students are introduced to the fundamental computational and statistical techniques used to address problems from biology and the life sciences. Students are introduced to dynamic programming for pairwise and multiple sequence alignment, enrichment statistics for biological pathway analysis, statistical classification for predicting clinical end-points including patient prognosis in breast cancer, Hidden Markov Models (HMM) used to predict the locations of genes in a genome, and probabilistic models for detecting mutations in next generation sequencing data. The lectures are supplemented by programming and analytic exercises to implement these statistical and computational frameworks.

BIOL 480 Bioinformatics (3 credits)

Prerequisite: BIOL 367; within 30 credits of graduating with a BSc in a Department of Biology honours or specialization program and permission of the Department. This course provides students from Biology with instruction in the basic techniques of bioinformatics, computational biology and biological data science. There are three major goals. The first goal is to introduce common bioinformatic software, databases and tools for analyzing molecular data. The second is to provide students with methods from computational biology to test hypotheses using programming techniques. The third is to provide an introduction to methods from data science for exploring large biological data sets using visualization, statistics and machine learning. Lectures and laboratory.

NOTE: This is primarily a graduate course with a limited number of places for undergraduate students depending upon availability.

BIOL 481 Genome Structure (3 credits)

Prerequisite: BIOL 367 and permission of the Department. This course provides an overview of genome analysis including cloning systems; sequencing strategies; methods of detecting genes and approaches to mapping genomes. It covers the theory and design of the different approaches, and the analysis of genomic data generated from them. Lectures only.

NOTE: This is primarily a graduate course with a limited number of places for undergraduate students depending upon availability.

BIOL 482 Functional Genomics (3 credits)

Prerequisite: BIOL 367 and permission of the Department. This course focuses on the functional analysis of expressed genes and their products. Course content includes transcription profiling using microarrays and RNA-Seq, systematic identification of proteins using mass spectrometry, functional analysis by gene knock-outs, localization of gene products by gene knock-ins, recombinant protein synthesis and protein-protein interactions using affinity co-purification and protein complementation assays. Lectures only.

NOTE: This is primarily a graduate course with a limited number of places for undergraduate students depending upon availability.

BIOL 484 Industrial and Environmental Biotechnology (3 credits)

Prerequisite: BIOL 367 and permission of the Department. This course provides an in-depth evaluation of current biotechnology tools used in pharmaceutical and forestry industries, and in environmental remediation. New technologies and genomic approaches that can be applied to these processes are also discussed. Lectures only.

NOTE: This is primarily a graduate course with a limited number of places for undergraduate students depending upon availability.

BIOL 485 Agriculture and Agri-Food Biotechnology (3 credits)

Prerequisite: BIOL 367 and permission of the Department. This course provides an overview on the use of biotechnology in agriculture and in the agri-food industry. Plant genomics and genetic manipulation of plants are emphasized. Also discussed are biotechnology methods used in reducing agricultural pollutants and converting agricultural surplus to energy. Lectures only.

NOTE: This is primarily a graduate course with a limited number of places for undergraduate students depending upon availability.

BIOL 486 High-throughput Instrumentation (3 credits)

Prerequisite: BIOL 367 and permission of the Department. This course provides an in-depth look at high-throughput instruments used in biotechnology and genomics. Students are exposed to technologies such as massively parallel sequencing, high-throughput genotyping, construction of DNA microarrays, proteomics, robotics platform, mass spectrometry, fluorescence-activated cell sorting, chemical screening, microfluidics, surface plasmon resonance, protein microarrays.

NOTE: This is primarily a graduate course with a limited number of places for undergraduate students depending upon availability.

**BIOL 487 (also listed as CHEM 487 and GEOG 487)
Capstone Seminar in Environmental Science** (3 credits)

Prerequisite: Completion of the core courses of the BSc Environmental and Sustainability Science. The course is designed to integrate the knowledge from several courses and provide students an opportunity to apply this knowledge to a current issue in environmental sciences through experiential learning. Students work in small groups made up from participants of all streams and critically evaluate an environmental issue using the expertise of all participants. Examples could be the reclamation of a former mining site, plans for expansion of a landfill or plans for a new water treatment plant. Aspects evaluated include, but are not limited to, land use, impact on vegetation and biota, availability of critical chemical data (e.g. trace metals, water/runoff quality, and impact on the local population). The result is a detailed environmental assessment report prepared by students.

NOTE: Students who have received credit for CHEM 487 or GEOG 487 may not take this course for credit.

BIOL 490 *Independent Study* (6 credits)

Prerequisite: Within 30 credits of graduating with a BSc in a Department of Biology honours or specialization program and permission of the Department. In this course, the student undertakes a special research project selected in consultation with, and conducted under, the supervision of a faculty member of the Department. The project is intended to develop the student's knowledge of standard scientific procedures, including methods of researching scientific literature, the planning and execution of experimental and analytical procedures, the writing of a formal report, and the presentation of a seminar on the project.

NOTE: Work in this course must be carried out over two consecutive terms: either the summer session and fall term or fall term and winter term.

BIOL 493 *(also listed as COMP 493)****Computational Biology Team Project*** (6 credits)

Prerequisite: Minimum of 54 credits in the Honours or Specialization in Systems and Information Biology programs; BIOL 367; COMP 352; or permission of the Department. Students form teams or join existing teams (such as those in research labs) and work under faculty supervision to solve a computational biology research problem or to carry out a computational biology research project. The research problem or project involves the utilization of knowledge of biology and of computing, involves computing lab and/or wet lab practice and contributes to any of the areas of computational biology. The project fosters teamwork and allows students to develop their project management, technical writing and oral presentation skills.

NOTE: Students who have received credit for COMP 493 may not take this course for credit.

BIOL 498 *Advanced Topics in Biology* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

Faculty

Chair

CHRISTINE DEWOLF, PhD *Imperial College of Science, Technology and Medicine; Professor*

Distinguished Professors Emeriti

MARK DOUGHTY, PhD *University of London*
ANN M. ENGLISH, PhD *McGill University; Provost's Distinction*
OSWALD S. TEE, PhD *University of East Anglia*

Professors

JOHN A. CAPOBIANCO, PhD *University of Geneva*
PAT FORGIONE, PhD *University of Ottawa*
YVES GÉLINAS, PhD *Université du Québec à Montréal*
PAUL JOYCE, PhD *Dalhousie University*
JUNG KWON (JOHN) OH, PhD *University of Toronto*
PETER PAWELEK, PhD *McGill University*
GILLES H. PESLHERBE, PhD *Wayne State University*
CHRISTOPHER WILDS, PhD *McGill University*

Associate Professors

LOUIS CUCCIA, PhD *McGill University*
GEORGE DÉNÈS, PhD *Université de Rennes I*
BRANDON FINDLAY, PhD *University of Manitoba*
HEIDI M. MUCHALL, PhD *University of Essen*
XAVIER OTTENWAELDER, PhD *Université Paris-XI (Orsay)*
JUSTIN B. POWLOWSKI, PhD *University of Minnesota*
INGO SALZMANN, PhD *Humboldt University of Berlin*
CAMERON SKINNER, PhD *McGill University*
DAJANA VUCKOVIC, PhD *University of Waterloo*

Assistant Professors

ASHLEE HOWARTH, PhD *University of British Columbia*
MAREK MAJEWSKI, PhD *University of British Columbia*
RAFIK NACCACHE, PhD *Concordia University*
MELISSA PASSARELLI, PhD *Pennsylvania State University*

Senior Lecturers

SÉBASTIEN ROBIDOUX, PhD *McGill University*
CERRIE ROGERS, PhD *University of British Columbia*

Lecturer

GREGOR KOS, PhD *Vienna University of Technology*

For the complete list of faculty members, please consult the Department website.

Location

Loyola Campus

Richard J. Renaud Science Complex, Room: SP 201.01
514-848-2424, ext. 3366

Department Objectives

Chemistry is the science that examines the structure of substances and the reactions to produce novel and useful products. Biochemistry is that part of chemistry which deals with chemical changes occurring in biologically relevant systems; i.e. changes taking place in living cells that are responsible for life processes.

The mission of the Department is fourfold: (i) excellence in teaching and research in the fields of chemistry and biochemistry; (ii) develop and maintain strong undergraduate and graduate teaching programs; (iii) develop and maintain state-of-the-art quality research; and (iv) meet the high standards of the scientific and industrial communities. The Department's programs have strengths in both the applied and theoretical fields.

Programs

Students are responsible for satisfying their particular degree requirements.

The Department helps students to ensure that they adhere to the academic code of conduct while taking the Department's courses. Attendance at a 45-minute seminar on academic integrity is required of all students registered in any department course. The seminar is offered several times near the beginning of each term.

The Ordre des chimistes du Québec (OCQ) has fully accredited the curricula of i) Honours in Chemistry; ii) Honours in Biochemistry; iii) Specialization in Biochemistry; iv) Specialization in Chemistry. Upon satisfactory completion of any of the above-mentioned programs, a graduate is eligible for membership in the OCQ. A working knowledge of French is required.

Students should note that CHEM 450 has a performance prerequisite and is essential for honours programs. CHEM 419 has a performance prerequisite for the specialization programs. Students who cannot meet these prerequisites will not be able to complete the programs but may complete a major. For more details, students should consult with the Department.

Courses that consist of both laboratories and lectures require that a satisfactory performance be obtained in each of the components for successful completion of the course.

The superscript indicates credit value.

45 Core Component for Chemistry

CHEM 217³, 218³, 221^{3*}, 222^{3*}, 234³, 235³, 241³, 242³, 271³, 293³, 312³, 324³, 325³, 333³, 341³

*For Cegep equivalents these courses must be replaced with an equivalent number of other Organic Chemistry credits.

45 Core Component for Biochemistry

BIOl 261³, 266³, 364³, 368³; CHEM 217³, 218³, 221^{3*}, 222^{3*}, 234³, 235³, 241³, 271³, 293³, 324³, 375³³

*For students entering with the Cegep equivalents, these credits must be replaced with an equivalent number of other Organic Chemistry credits (for students in the specialization or honours) or with an equivalent number of credits in Chemistry or related disciplines, as approved by the departmental advisor (for students in the major).

60 BSc Honours in Chemistry

45 Core component for Chemistry

3 CHEM 495³

6 CHEM 450⁶

6 Additional credits at the 400 level in Chemistry

NOTE: Students seeking admission to the honours program may apply either for direct entry on the University application form or, once in the program, to the departmental honours advisor normally following the completion of 30 credits. Students must meet the University regulations concerning the honours degree. Honours students in second year and beyond are encouraged to attend departmental seminars.

72 BSc Honours in Biochemistry

45 Core component for Biochemistry

3 CHEM 477³ or BIOl 466³

18 CHEM 312³, 325³, 335³, 450⁶; BIOl 367³

6 Credits of 400-level courses in the Biochemistry area (CHEM 470³, 471³, 472³, 475³, 476³, 478³, 481³, and when appropriate, CHEM 498³); three credits may be replaced by a 400-level course in Chemistry or a 400-level course in Cell and Molecular Biology (BIOl 443³, 461³, 462³, 463³, 467³, 468³, 472³, and when appropriate, BIOl 498³).

NOTE: Students seeking admission to the honours program may apply either for direct entry on the University application form or, once in the program, to the departmental honours advisor normally following the completion of 30 credits. Students must meet the University regulations concerning the honours degree. Honours students in second year and beyond are encouraged to attend departmental seminars.

69 BSc Honours in Environmental and Sustainability Science

33 Credits of core courses:

9 BIOl 225³, 226³; GEOG 290³

3 GEOG 264³

6 GEOG 272³; GEOL 210³

6 CHEM 212³ or 217³; CHEM 283³

6 BIOl 322³; GEOG 363³

3 CHEM 487³

36 Credits in Environmental Chemistry Stream:

3 CHEM 312³

3 Chosen from CHEM 218³, 234³, 235³

9 Chosen from BIOl 261³; CHEM 221³, 222³, 241³, 271³; GEOG 375³, 378³; of which six credits must be CHEM

6 Chosen from BIOl 367³; CHEM 375³; CIVI 361^{3,5*}; GEOG 377³

- 9 Chosen from BIOL 459³; CHEM 458³, 470³, 472³, and when appropriate CHEM 498³; CIVI 467³, 468³, 469^{3,5}; GEOG 470³, 475³, 476³, 478³; GEOL 440³

- 6 CHEM 450⁶

**Environmental and Sustainability Science students missing the prerequisites may apply to have all or some of these waived by the Department of Building, Civil and Environmental Engineering.*

NOTE: Students seeking admission to the honours program may apply either for direct entry on the University application form or, once in the program, to the departmental honours advisor normally following the completion of 30 credits. Students must meet the University regulations concerning the honours degree. Honours students in second year and beyond are encouraged to attend departmental seminars.

60 BSc Specialization in Chemistry

45 Core component for Chemistry

- 3 CHEM 495³

- 6 CHEM 419⁶ or, with departmental permission, CHEM 450⁶

- 6 Additional credits at the 400 level in Chemistry

NOTE: Students in the specialization program must maintain a GPA of 2.00 or better in the core program, to be evaluated annually.

69 BSc Specialization in Biochemistry

45 Core component for Biochemistry

- 18 CHEM 312³, 325³, 335³, 477³; BIOL 367³, 466³

- 6 Credits of 400-level courses in the Biochemistry area (CHEM 470³, 471³, 472³, 475³, 476³, 478³, 481³, and when appropriate, CHEM 498³); three credits may be replaced by a 400-level course in Chemistry or by a 400-level course in Cell and Molecular Biology (443³, 461³, 462³, 463³, 467³, 468³, 472³, and when appropriate, BIOL 498³).

NOTE: CHEM 477³ or BIOL 466³ plus a non-biochemistry program elective can be replaced by CHEM 419⁶ or 450⁶.

NOTE: Students in the specialization program must maintain a GPA of 2.00 or better in the core program, to be evaluated annually.

63 BSc Specialization in Environmental and Sustainability Science

33 Credits of core courses:

- 9 BIOL 225³, 226³; GEOG 290³

- 3 GEOG 264³

- 6 GEOG 272³; GEOL 210³

- 6 CHEM 212³ or 217³; CHEM 283³

- 6 BIOL 322³; GEOG 363³

- 3 CHEM 487³

30 Credits in Environmental Chemistry Stream:

- 3 CHEM 312³

- 3 Chosen from CHEM 218³, 234³, 235³

- 9 Chosen from BIOL 261³; CHEM 221³, 222³, 241³, 271³; GEOG 375³, 378³; of which six credits must be CHEM

- 6 Chosen from BIOL 367³; CHEM 375³; CIVI 361^{3,5*}; GEOG 377³

- 9 Chosen from BIOL 459³; CHEM 458³, 470³, 472³, and when appropriate CHEM 498³; CIVI 467³, 468³, 469^{3,5}; GEOG 470³, 475³, 476³, 478³; GEOL 440³

**Environmental and Sustainability Science students missing the prerequisites may apply to have all or some of these waived by the Department of Building, Civil and Environmental Engineering.*

NOTE: Students in the specialization program must maintain a GPA of 2.00 or better in the core program, to be evaluated annually.

45 BSc Major in Chemistry

45 Core component for Chemistry. Substitution of courses from within the Core program by other courses in Chemistry or related disciplines (Mathematics, Physics, Biology, Geology) up to a maximum of nine credits, will be accepted, if previously approved by a departmental program advisor. It is expected that such substitutions will be in accord with the overall program of study being followed by the student.

45 BSc Major in Biochemistry

45 Core component for Biochemistry

24 Minor in Chemistry

24 Chosen from the Department's offerings, with due regard to prerequisites, such that the courses chosen form a coherent pattern which complements the student's other areas of study. The course pattern chosen must have been previously approved by a departmental program advisor.

Chemistry and Biochemistry Co-operative Program

Director

XAVIER OTTENWAELDER, Associate Professor

The Chemistry and Biochemistry co-operative program is offered to students who are enrolled in the BSc Honours or Specialization in Chemistry and Biochemistry; and Environmental and Sustainability Science. Students interested in applying for the Chemistry

and Biochemistry co-op should refer to §24 where a full description of the admission requirements is provided. Academic content is identical to that of the regular program, but study terms are interspersed with three work terms. Students are supervised personally and must meet the requirements specified by the Faculty of Arts and Science and the Institute for Co-operative Education, in order to continue their studies in the co-op format. Liaison between the student, the employers and the Institute for Co-operative Education is provided by the Chemistry and Biochemistry co-op committee, which includes the student's advisors. Please refer to §24 for additional information.

Chemistry and Biochemistry C.Edge (Career Edge) Option

The Chemistry and Biochemistry C.Edge option is offered through the Institute for Co-operative Education. Like the co-operative program, C.Edge allows students to gain practical experience through work terms related to their field of study. It is limited to one or two work terms, normally in the summer. Students interested in applying for the C.Edge option should refer to §24 where a full description is provided.

Courses

A student may be exempted from one or more of the introductory courses, on the basis of work done at the Cegep level. Where exemptions are given, replacement courses must be chosen with the approval of a department advisor. In the case of certain programs approved by the Ordre des chimistes du Québec, the courses must be replaced with an equivalent number of credits in the same subdiscipline as the exemptions.

Students who have successfully completed the Cegep equivalent for CHEM 205, 206, 221 and/or 222 should verify on their Concordia student record that they have received an exemption. Similarly, students who have successfully completed the equivalent course(s) at another university should verify on their Concordia student record that they have received credit or exemption as appropriate for this course. If not, they should see the departmental advisor.

CHEM 203 *Forensic Analysis* (3 credits)

This course introduces the non-science student to the fundamentals of chemical analysis as it is used in modern forensics. It introduces the basic concepts of the scientific method, molecules and chemical reactions, primarily focusing on chemical analysis. The key techniques used in modern forensics are presented with applications in drug, DNA, fingerprint, explosive and combustion/arson analysis.

NOTE: This course is not a prerequisite for any Chemistry course. Students in programs leading to the BSc degree may take this course as an elective, but may not take this course for credit to be applied to their program of concentration.

CHEM 204 *From Alchemy to Modern Chemistry: A Historical Evolution of Chemistry* (3 credits)

This course examines the development of chemistry before the 20th century from the Greek, Chinese and Islamic religions and philosophies to the development of measurement and instrumentation to analyze matter. The objective is to understand the roots of modern chemistry, and look at contributions and principles that are representative of the period in which they emerged.

NOTE: This course is not a prerequisite for any Chemistry course. Students in programs leading to the BSc degree may take this course as an elective, but may not take this course for credit to be applied to their program of concentration.

CHEM 205 *General Chemistry I* (3 credits)

Stoichiometry, states of matter, atomic structure, electron structure of atoms, the periodic table, periodic properties, bonding, solids. Lectures and laboratory.

NOTE: This course presumes a good grounding in secondary-school mathematics. Students lacking such grounding or non-science students seeking only an awareness of chemistry are advised to enrol in CHEM 208.

NOTE: Students in programs leading to the BSc degree may not take this course for credit to be applied to their program of concentration.

CHEM 206 *General Chemistry II* (3 credits)

Prerequisite: CHEM 205. Thermochemistry, solutions and their properties, equilibrium, ionic equilibrium, pH, buffers, kinetics, reaction mechanisms, other selected topics related to biochemistry, biology, and engineering. Lectures and laboratory.

NOTE: Students in programs leading to the BSc degree may not take this course for credit to be applied to their program of concentration.

CHEM 208 *Chemistry in Our Lives* (3 credits)

This course is designed as an introduction to chemistry for non-science students. It concentrates on establishing the chemical concepts and vocabulary necessary to understand the many roles chemistry plays in people's daily lives. Issues to be presented will range from design and testing of drugs to protection of the ozone layer. The chemical phenomena, methodology, and theory will be presented as needed to understand the various issues covered in the course. Lectures only.

NOTE: This course is not a prerequisite for any Chemistry course. This course may not be taken for credit by science students.

CHEM 209 *Discovering Biotechnology* (3 credits)

The course begins with an exploration of the roles of genes and proteins in life processes. It then proceeds to an examination of the basic scientific principles behind manipulation of biological molecules to produce desired changes. Students are introduced to

the specific applications of the technology to medicine, agriculture, and the environment. Economic and ethical issues raised by biotechnology are also examined.

NOTE: This course is intended for non-scientists, and may not be taken for credit by Biochemistry or Biology students.

CHEM 212 *Analytical Chemistry for Biologists* (3 credits)

Prerequisite: CHEM 205, 206; PHYS 204, 206, 224, 226; MATH 205; or equivalents for all prerequisite courses. This course introduces the basic concepts of analytical chemistry to students in the biological sciences. Topics include treatment of analytical data; chemical equilibria and titrations; introduction to spectroscopy; separation science; electrochemistry. Lectures and laboratory.

NOTE: This course may not be taken for credit by students registered in a Chemistry or Biochemistry program.

CHEM 217 *Introductory Analytical Chemistry I* (3 credits)

Prerequisite: CHEM 205, 206; PHYS 204, 206, 224, 226; MATH 203, 205; or equivalents for all prerequisite courses. Precipitation methods and solubility products; activity, chemical equilibria and titration curves of neutralization and complexation systems; treatment of analytical data. Lectures and laboratory.

CHEM 218 *Introductory Analytical Chemistry II* (3 credits)

Prerequisite: CHEM 217. Chemical equilibria and titration curves of oxidation-reduction, precipitation, and non-aqueous systems; potentiometry and potentiometric titrations; introduction to spectroscopy with emphasis on molecular and atomic absorption spectroscopy, fluorescence spectroscopy. Lectures and laboratory.

CHEM 221 *Introductory Organic Chemistry I* (3 credits)

Prerequisite: CHEM 205, 206. Basic aspects of orbitals and their role in covalent bonding; delocalization of electrons. Alkanes: structure, nomenclature, isomerism, reactions. Introductory stereochemistry: enantiomers, diastereomers, conformers, Fischer and Newman projections, specification of chirality, E/Z isomerism. Conformations of cyclic compounds. Alkylhalides: S_N1; S_N2; E1; E2 reaction mechanisms. Free-radical reactions, organometallic compounds. Chemistry of alkenes, alkynes, and dienes. Lectures and laboratory.

CHEM 222 *Introductory Organic Chemistry II* (3 credits)

Prerequisite: CHEM 221. Introduction to the use of IR and NMR spectroscopy for the identification of simple organic compounds. Benzene and aromatic compounds: aromaticity, electrophilic aromatic substitution, nucleophilic aromatic substitution, substituent effects. Chemistry of aldehydes and ketones: nucleophilic addition, oxidation, reduction, and condensation reactions, tautomerism. Chemistry of carboxylic acids and their derivatives. Chemistry of alcohols, ethers, and related compounds. Amines: basicity, reactions. Lectures and laboratory.

CHEM 234 *Physical Chemistry I: Thermodynamics* (3 credits)

Prerequisite: CHEM 205, 206; PHYS 204, 206, 224, 226; MATH 203, 205; or equivalents for all prerequisite courses. The properties of real gases; fugacities; first, second and third laws of thermodynamics; the Phase Rule; one- and two-component systems; real solutions, and partial molal properties. Lectures and tutorials.

CHEM 235 *Physical Chemistry II: Kinetics of Chemical Reactions* (3 credits)

Prerequisite: CHEM 234. Mathematical treatment of experimental results; theories of reaction rates; unimolecular reactions; the steady-state approximation; factors influencing rates of reactions in solution; acid-base catalysis; catalysis by enzymes and the Michaelis-Menten mechanism; free-radical reactions; photochemical reactions; experimental methods and techniques. Lectures and laboratory.

CHEM 241 *Inorganic Chemistry I: Introduction to Periodicity and Valence Theory* (3 credits)

Prerequisite: CHEM 205, 206; PHYS 204, 206, 224, 226; MATH 203, 205; or equivalents for all prerequisite courses. The structure of the atom: the periodic table; properties of atoms, covalent bonding treatments including Lewis theory, valence shell electron pair repulsion theory of structure, valence bond and molecular orbital theory. Crystal field theory applied to the structure and properties of transition metal complexes. Bonding theories of metallic materials and semi-conductors. Lectures and laboratory.

CHEM 242 *Inorganic Chemistry II: The Chemistry of the Main Group Elements* (3 credits)

Prerequisite: CHEM 241. A survey of the properties and reactions of: hydrogen; Group 1, lithium to cesium; and Group 2, beryllium to radium; including the theory of ionic bonding and structure. The descriptive chemistry of Group 13, boron to thallium; Group 14, carbon to lead; Group 15, nitrogen to bismuth; Group 16, sulphur to polonium; Group 17, the halogens; and Group 18, the chemistry of the noble gases. Lectures and laboratory.

CHEM 271 *Biochemistry I* (3 credits)

Prerequisite: CHEM 221. An introduction to the essentials of biochemistry: protein structure, enzymology, carbohydrate metabolism, electron transport, integration and regulation of metabolism. Lectures, tutorials and laboratory.

CHEM 283 *Air, Water and Soil Processes* (3 credits)

Prerequisite: CHEM 212 or 217; or equivalent. This course is an introduction to environmental chemistry. It provides a solid understanding of environmental processes in the atmosphere, hydrosphere and soil including exchange processes at their interfaces. Students learn how sources and sinks of pollutants work and how to calculate fluxes between environmental compartments. The course also examines the analytical methods employed for monitoring these processes.

NOTE: Students who have received credit for this topic under a CHEM 298 number may not take this course for credit.

CHEM 293 *Spectroscopy and Structure of Organic Compounds* (3 credits)

Prerequisite: CHEM 222. This course examines the identification of organic compounds using methods based on electronic, vibrational, nuclear magnetic resonance and mass spectroscopies. In each case, there is an introduction to the principles of the spectroscopy and a discussion of how its spectra vary with structure. Particular emphasis is placed upon the UV-visible spectra of conjugated molecules; the identification of functional groups by IR spectroscopy; the use of NMR spectroscopy, including 2D methods, for the determination of stereochemistry; and the use of mass spectrometry for ascertaining molecular constitution. The use of computer simulation and information retrieval for structure determination is introduced. Lectures and laboratory.

NOTE: Students who have received credit for CHEM 393 may not take this course for credit.

CHEM 298 *Selected Topics in Chemistry* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

CHEM 312 *Intermediate Analytical Chemistry* (3 credits)

Prerequisite: CHEM 218. A continuation of CHEM 217 and 218, with emphasis on instrumental methods of analysis. Emission spectroscopy; X-ray spectroscopy; voltammetry and polarography; amperometric titrations; coulometry and coulometric titrations, conductometry; chromatography with particular emphasis on gas chromatography, and high performance liquid chromatography. Laboratory is taken concurrently and provides experience in analytical techniques described in lectures. Lectures and laboratory.

CHEM 324 *Organic Chemistry III: Organic Reactions* (3 credits)

Prerequisite: Students must have completed a minimum of 15 credits in chemistry including CHEM 222 and CHEM 293. Topics in this course include a mechanistic survey of reactions of major synthetic utility, the determination of reaction mechanisms, and the importance of reactive intermediates including carbocations, carbanions, radicals, and carbenes. Lectures and laboratory.

CHEM 325 *Organic Chemistry IV: Organic Structure and Stereochemistry* (3 credits)

Prerequisite: Students must have completed a minimum of 15 credits in chemistry including CHEM 222 and CHEM 293. This course focuses on organic structure and stereochemistry including the relationship of stereochemistry to physical properties and chemical reactivity, and the determination of organic structure and stereochemistry by chemical and spectroscopic means. The concept of molecular symmetry is also introduced. Lectures and laboratory.

CHEM 326 *Natural Products* (3 credits)

Prerequisite: CHEM 324. The structures, mechanisms of action, and biosynthetic origins of biologically important compounds such as fatty acids, polyketides, terpenes, steroids, alkaloids, and beta-lactam antibiotics are discussed. The role of traditional organic chemistry in the development of modern biochemistry and biotechnology is illustrated with examples from medicine and agriculture. Lectures only.

CHEM 327 *Organic Chemistry of Polymers* (3 credits)

Prerequisite: CHEM 222. Introduction to the fundamental aspects of polymers and polymerization. Methods of preparation, reaction mechanisms and kinetics of polymer synthesis including condensation polymerization; addition polymerization: free radical, anionic, cationic; heterogeneous (Ziegler-Natta) and homogeneous (metallocenes) coordination polymerization. Polymer characterization and uses. Lectures and problem sessions.

CHEM 333 *Introduction to Quantum Theory* (3 credits)

Prerequisite: CHEM 234, 241. The course introduces students to the concept of quantum mechanics and the electronic structure of atoms and molecules. Topics include the origins and postulates of quantum theory, the Schrödinger equation and applications to simple systems such as the harmonic oscillator, rigid rotor and the hydrogen atom. The course looks at the quantum mechanical treatment of the chemical bond and provides an introduction to spectroscopy. Lectures only.

CHEM 335 *Biophysical Chemistry* (3 credits)

Prerequisite: CHEM 234, 235, 271, 293. This course examines the physical basis for the structures of biomolecules (energetics of protein folding), the organization and structures of bio-membranes and biologically relevant systems, and intermolecular interactions (e.g. ligand binding). Both fundamental theory and techniques used to characterize these physical properties are covered. Lectures and laboratory.

CHEM 341 *Inorganic Chemistry III: The Transition Metals* (3 credits)

Prerequisite: CHEM 217, 218, 241, 242. Theories of bonding in transition metal complexes, including ligand field theory, applied to structure, physical properties, and reactivity of transition metal complexes: organometallic chemistry and catalysis. Metals in biological systems. Lectures and laboratory.

CHEM 375 *Biochemistry II* (3 credits)

Prerequisite: CHEM 221, 222, 271. A survey of selected pathways in intermediary metabolism, including their regulation and physiological significance, lipid, amino acid and nucleoside metabolism, cholesterol biosynthesis, urea cycle and the biochemistry of protein synthesis. Lectures and laboratory.

CHEM 398 *Selected Topics in Chemistry* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

CHEM 415 *Analytical Separations* (3 credits)

Prerequisite: CHEM 218, 312. High performance liquid separations on an analytical (non-preparative) scale are surveyed. Fundamental separation mechanisms and application of the techniques are discussed. Emphasis is placed on separations of biologically relevant analytes which include peptides, proteins and nucleic acids. Lectures only.

NOTE: Students who have received credit for this topic under a CHEM 498 number may not take this course for credit.

CHEM 419 *Independent Study and Practicum* (6 credits)

Prerequisite: Must have completed 60 credits including the 45-credit Core program, or equivalent, with a GPA of 2.00 (C) or better in Core program courses. In collaboration with and under the direction of a member of Faculty, the student carries out independent study and practical work on a problem chosen from the student's area of concentration. The student presents his or her work to the Department in the form of a scientific poster and submits a written report to the supervisor.

NOTE: During the academic session before the one in which this project is to be undertaken, the student must have obtained the consent of the Department, by consultation with the CHEM 419 coordinator, and must have also been accepted by a faculty supervisor. Independent study and practical work.

CHEM 421 *Physical Organic Chemistry* (3 credits)

Prerequisite: CHEM 222, 235; CHEM 324 or 325. Determination of organic reaction mechanisms using kinetics, activation parameters, acid-base catalysis, Bronsted catalysis law, solvent effects, medium effects, isotope effects, substituent effects, and linear free energy relationships. Lectures only.

CHEM 424 *Organic Synthesis* (3 credits)

Prerequisite: CHEM 324; 30 credits in chemistry or permission of the Department. This course is designed to introduce students to advanced methods in organic molecule synthesis. It includes an introduction to retrosynthetic analysis, a survey of some important classes of reactions, with particular emphasis on mechanistic understanding and rationale for observed selectivity when appropriate. The strategic use of specific reactions in complex molecule synthesis is highlighted.

CHEM 425 *Nucleic Acid Chemistry* (3 credits)

Prerequisite: CHEM 222, 271. This course introduces students to various topics in nucleic acid chemistry. The topics include nomenclature, structure and function of RNA and DNA; techniques and methods to investigate nucleic acid structure; DNA damage and repair; interaction of small molecules and proteins with nucleic acid; oligonucleotide-based therapeutics (antisense, antigene, RNAi); synthesis of purines, pyrimidines and nucleosides; and solid-phase oligonucleotide synthesis. Lectures only.

NOTE: Students who have received credit for this topic under a CHEM 498 number may not take this course for credit.

CHEM 426 *Reactive Intermediates* (3 credits)

Prerequisite: CHEM 293 previously or concurrently. This course offers an introduction to reactive intermediates with an emphasis on structure and stability as found in modern (physical) organic chemistry. While the focus is on radicals and carbenes, carbocations are discussed near the end of the term. The material covered is relevant to chemistry and biochemistry. Lectures only.

NOTE: Students who have received credit for CHEM 393 or for this topic under a CHEM 498 number may not take this course for credit.

CHEM 427 *Polymer Chemistry and Nanotechnology* (3 credits)

Prerequisite: CHEM 222 or permission of the Department. This course introduces some basic aspects of polymer chemistry with an emphasis on polymer synthesis. Various methods are discussed, including classical step growth, free radical, and ring opening polymerization; and other more recent methods such as living anionic, living cationic, and living controlled/radical polymerization. Additionally, the design and development of functional polymers as building blocks to develop nanomaterials for bio-related applications, particularly drug delivery applications, are presented. Other topics may include amphiphilic block copolymers, self-assembly, micellar nanocarriers, cellular imaging, multifunctional drug delivery, cross-linked nanogels/hydrogels, materials science, and biomedical engineering. Lectures only.

NOTE: Students who have received credit for this topic under a CHEM 498 number may not take this course for credit.

CHEM 428 *Medicinal Chemistry* (3 credits)

Prerequisite: CHEM 293, 324. This course provides an introduction to the small molecule drug discovery process, addressing early target identification, hit discovery, lead optimization, preclinical considerations, up to clinical trials. The course focuses primarily on the rational design and synthesis of drugs that employ multidisciplinary approaches to satisfy a multitude of specificity and safety requirements. The emphasis is on organic synthesis within the special context of medicinal chemistry that illustrates the challenges involved in leveraging the opportunities presented by high throughput, parallel and/or combinatorial synthesis in light of physical limitations imposed by processing large numbers of compounds. Case studies from the current literature are used to highlight how new technologies and strategies have overcome some of those limitations and are used to highlight recent innovations in the field. The course also charts the evolution of powerful techniques from structural research (NMR, X-ray crystallography, and computational modelling) as fully integrated medicinal chemistry tools for modern drug-discovery to highlight key advances.

CHEM 431 *Computational Chemistry for Chemists and Biochemists* (3 credits)

Prerequisite: CHEM 234, 241, 333 or 335, or permission of the Department. This course presents the concepts, tools, and techniques of modern computational chemistry, and provides a very broad overview of the various fields of application across chemistry and biochemistry. The course is divided into two parts: 1) Molecular structure, which covers molecular mechanics and

elementary electronic structure theory of atoms and molecules; and 2) *Chemical reactivity*, which covers applications of quantum chemistry and molecular dynamics techniques to studies of chemical reactions. The applications discussed include organic molecules and their reactions, peptides and proteins, drug design, DNA, polymers, inorganics, and materials. The course includes a practical component where students acquire hands-on experience with commonly used computational chemistry computer software. Lectures and laboratory.

NOTE: Students who have received credit for this topic under a CHEM 498 number may not take this course for credit.

CHEM 435 *Interfacial Phenomena* (3 credits)

Prerequisite: CHEM 234, 235. This course examines the physical chemistry of interfaces including surface and interfacial tensions, the absorption of surface active substances/surface excess properties, and surfactant self-assembly. Topics covered may include Gibbs and Langmuir monolayers, micelle formation, emulsions, foams, surfactant liquid crystals, layer-by-layer polymer self-assembly, and biological membranes. Techniques for characterization and applications (biological and industrial) of these systems are addressed. Lectures only.

NOTE: Students who have received credit for this topic under a CHEM 498 number may not take this course for credit.

CHEM 436 *Molecular Modelling of Proteins* (3 credits)

Prerequisite: CHEM 234, 271. This course offers a hands-on introduction to the computer tools used to predict the structure of a protein from its amino acid sequence, and to gain insight into its function. Students learn modelling techniques such as sequence alignment, homology modelling, computer visualization, molecular dynamics, and molecular docking. Computer laboratory with pre-lab lectures.

NOTE: Students who have received credit for this topic under a CHEM 498 number may not take this course for credit.

CHEM 443 *Organometallic Chemistry* (3 credits)

Prerequisite: CHEM 324 previously or concurrently; CHEM 341; or permission of the Department. This course covers the structure and properties of organometallic compounds, their main reactions and their application in catalysis and organic chemistry. Lectures only.

NOTE: Students who have received credit for this topic under a CHEM 498 number may not take this course for credit.

CHEM 450 *Research Project and Thesis* (6 credits)

Prerequisite: 60 credits including either the 45-credit Core Chemistry and Biochemistry program, or the 33-credit Core Environmental and Sustainability Science program, or equivalent and enrolment in one of these programs, with a program GPA of 3.3 or better; or written permission of the Department. The student works on a research project in the student's area of concentration, selected in consultation with and conducted under the supervision of a faculty member of the Department. The student writes a thesis on the results and defends it before a departmental committee.

NOTE: During the academic session before the one in which this project is to be undertaken, the student must have obtained the consent of the Department, by consultation with the CHEM 450 coordinator, and must have also been accepted by a faculty supervisor.

CHEM 451 *Nanochemistry* (3 credits)

Prerequisite: CHEM 217, 218, 221, 222, 234, 235, 241. This modular course covers the areas of production, characterization and applications of nanoscale structures and materials. Each module is taught by a different professor as well as guest lecturers. Topics may include (but are not limited to) size dependent properties, synthesis of organic and inorganic nanostructures, self-assembled structures, chemical patterning and functional nanopatterns, biomaterials. Nanometer scale fabrication techniques such as lithographic methods, nano-stamping and patterned self-assembly are discussed. Modern analysis techniques such as atomic force microscopy and electron microscopy, which are used to map and measure at the single molecule level, are introduced. Applications such as photonics, optical properties, biodetection and biosensors, micro- and nano-fluidics, nanoelectronics and nanomachines are presented. The course includes a term project carried out using the nanoscience facilities held in the Department research labs.

NOTE: Students who have received credit for this topic under a CHEM 498 number may not take this course for credit.

CHEM 458 *Aquatic Biogeochemistry* (3 credits)

Prerequisite: CHEM 217, 218, 312; or enrolment in a BSc Environmental and Sustainability Science program and CHEM 212 or 217. The major aim of this course is to present a quantitative treatment of the variables that determine the composition of natural waters. Chemical equilibrium is the central theme of the course, but consideration is also given to kinetics, steady-state and dynamic models. Related themes include global chemical cycles, air and water pollution, as well as current research topics in water chemistry and chemical oceanography. Lectures only.

NOTE: Students who have received credit for CHEM 418 or for this topic under a CHEM 498 number may not take this course for credit.

CHEM 470 *Environmental Biochemistry* (3 credits)

Prerequisite: CHEM 271, 375; BIOL 367; or permission of the Department. This course examines the biochemical effects of environmental stresses on organisms, and adaptations that allow organisms to face these stresses. Emphasis is placed on biochemical responses to toxic compounds such as aromatics, halogenated aliphatics, drugs, and heavy metals. Other topics may include adaptations to stresses such as temperature extremes, pathogens, and ionizing radiation. Applications to related biotechnological processes are also considered.

NOTE: Students who have received credit for this topic under a CHEM 498 number may not take this course for credit.

CHEM 471 *Enzyme Kinetics and Mechanism* (3 credits)

Prerequisite: CHEM 271, 375. Steady-state kinetics, including the use of initial velocity studies and product inhibition to establish a kinetic mechanism; nonsteady-state kinetics, isotope effects, energy of activation, detailed mechanisms of selected enzymes. Lectures only.

CHEM 472 *Chemical Toxicology* (3 credits)

Prerequisite: CHEM 222, 271. Introduction to the general principles of toxicology with emphasis on the toxic effects of chemicals in humans. Dose-response relationship, types and routes of exposure, absorption and disposition of toxic substances, toxicokinetics, types of toxic response, and factors affecting toxic response. Toxicity testing, risk assessment, and interpretation of toxicological data. Lectures only.

CHEM 473 *Protein-Protein Interactions* (3 credits)

Prerequisite: CHEM 271, 375; or permission of the Department. This course provides an advanced examination of current topics in research related to understanding protein-protein interactions in vitro and in vivo. Topics may include biological roles of protein-protein interactions; evolution of protein-protein interactions and correlated mutations; stable vs. transient interactions and their biological significance; interactomics; structural characteristics of protein-protein interaction interfaces; targeted disruption of protein-protein interactions and drug design; experimental approaches to measuring protein-protein interactions.

NOTE: Students who have received credit for this topic under a CHEM 498 number may not take this course for credit.

CHEM 475 *Protein Engineering and Design* (3 credits)

Prerequisite: CHEM 271, 375 or permission of the Department. This course examines the principles behind protein design, how techniques of protein engineering are used, and the methods used to assess protein properties. Examples include studies of protein stability, structure-function relationships, and applications to drug design. Lectures only.

CHEM 476 *Structure and Function of Biomembranes* (3 credits)

Prerequisite: BIOL 266; CHEM 375 or permission of the Department. This course discusses what is known about how the membranes of biological organisms are assembled and the roles that these membranes play in a number of important processes. Emphasis is placed on the transport of proteins to and through biomembranes and the roles that membranes play in metabolite and ion transport. Where applicable, the significance of these processes is illustrated by examining the roles of membranes in health and disease. Lectures only.

NOTE: Students who have received credit for this topic under a CHEM 498 number may not take this course for credit.

CHEM 477 *Advanced Laboratory in Biochemistry* (3 credits)

Prerequisite: CHEM 271, 375. Theory and practice of techniques in enzymology and protein chemistry, including steady-state and stopped-flow enzyme kinetics, ligand binding, immunological techniques, proteomics, computer modelling, and chemical modification of proteins. Tutorials and laboratory.

CHEM 478 *Hormone Biochemistry* (3 credits)

Prerequisite: CHEM 271, 375. This course deals with an in-depth study of the vertebrate hormones and involves a study of the precise chemical structure and properties of each hormone, its biosynthesis and mode of secretion from the cell. The circulating form of the hormone is examined, as well as the nature of the hormone receptor. The cellular mechanism of action and the relationship of the hormone's action to the intact animal are investigated. Lectures only.

CHEM 481 *Bioinorganic Chemistry* (3 credits)

Prerequisite: CHEM 271, 241. Role of metals in biochemical systems. Essential trace elements, zinc enzymes, oxygen transport and storage, metalloproteins and biological electron transfer, structure-function relationships in heme enzymes, nitrogen fixation; model compounds for metallo-proteins and metalloenzymes. Lectures only.

CHEM 487 *(also listed as BIOL 487 and GEOG 487)****Capstone Seminar in Environmental Science*** (3 credits)

Prerequisite: Completion of the core courses of the BSc Environmental and Sustainability Science. The course is designed to integrate the knowledge from several courses and provide students an opportunity to apply this knowledge to a current issue in environmental sciences through experiential learning. Students work in small groups made up from participants of all streams and critically evaluate an environmental issue using the expertise of all participants. Examples could be the reclamation of a former mining site, plans for expansion of a landfill or plans for a new water treatment plant. Aspects evaluated include, but are not limited to, land use, impact on vegetation and biota, availability of critical chemical data (e.g. trace metals, water/runoff quality, and impact on the local population). The result is a detailed environmental assessment report prepared by students.

NOTE: Students who have received credit for BIOL 487 or GEOG 487 may not take this course for credit.

CHEM 493 *Magnetic Resonance Spectroscopy* (3 credits)

Prerequisite: CHEM 222, 293. This course is designed to provide the background in magnetic resonance theory necessary to understand modern high-resolution NMR experiments and instrumentation. The basic theory in the introductory section also applies to electron spin resonance (ESR). Relaxation and through-bond and through-space interactions, and experiments to investigate them are considered. Spin manipulations and behaviour in multiple-pulse, Fourier transform NMR techniques used for common spectral editing and two-dimensional experiments are discussed. Lectures only.

CHEM 494 *Mass Spectrometry* (3 credits)

Prerequisite: CHEM 218, 222, 271. Production and interpretation of mass spectra. Topics include ionization methods (electron impact, chemical ionization and fast-atom bombardment); interpretation of mass spectra; introduction to quantitative analysis by mass spectrometry. Lectures only.

CHEM 495 *Advanced Molecular Characterization* (3 credits)

Prerequisite: CHEM 241, 293; six credits of 300-level CHEM courses. This course presents advanced techniques to characterize the geometric and electronic structures of molecules. This includes spectroscopic (rotational, vibrational, electronic, photoelectron, NMR, EPR, Mössbauer), diffraction and electrochemical methods. The course introduces the techniques and applies them to concrete case studies. Lectures only.

CHEM 498 *Advanced Topics in Chemistry* (3 credits)

CHEM 499 *Advanced Topics in Chemistry* (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

CLASSICS, MODERN LANGUAGES AND LINGUISTICS

Section 31.060

Faculty

Chair

MADELYN J. KISSOCK, PhD *Harvard University*; Associate Professor (*Linguistics*)

Professors

ANTHONY COSTANZO, MA *University of Washington* (*Italian*)
JOSÉ ANTONIO GIMÉNEZ-MICÓ, PhD *Université de Montréal* (*Spanish*)
MARK HALE, PhD *Harvard University* (*Linguistics*)
BRADLEY J. NELSON, PhD *University of Minnesota* (*Spanish*)
CHARLES REISS, PhD *Harvard University* (*Linguistics*)

Associate Professors

ALAN C. BAILE, PhD *McGill University* (*Linguistics*)
M. CATHERINE BOLTON, PhD *McMaster University* (*Classics*)
DARIO BRANCATO, PhD *University of Toronto* (*Italian*)
MIRIAM DÍAZ, PhD *University of Arizona* (*Spanish*)
JANE E. FRANCIS, PhD *Bryn Mawr College* (*Classics*)
DANIELA ISAC, PhD *University of Bucharest* (*Linguistics*)
M. GORETTI RAMÍREZ, PhD *Brown University* (*Spanish*)
ROBERTO VIERECK SALINAS, PhD *Universidad Complutense de Madrid* (*Spanish*)

Senior Lecturers

ELENA BENELLI, PhD *Université de Montréal* (*Italian*)
LIAN DUAN, PhD *Hunan Normal University* (*Chinese*)
RASHA EL HAWARI, PhD *Alexandria University* (*Arabic*)
LUIS OCHOA, MA *McGill University*, MA *Universidad de Salamanca* (*Spanish*)

Lecturer

ALEXANDER DALE, DPhil *University of Oxford* (*Classics*)

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus
Faubourg Tower, Room: FB 1030
514-848-2424, ext. 2310

Department Objectives

Classics programs have two related aims: first, to provide a solid background to the cultures of ancient Greece and Rome through written documents, including historical and literary sources, and archaeological evidence; and second, to train students to read and interpret texts in ancient Greek and Latin.

The Modern Language programs provide a stimulating intellectual milieu for learning and strengthening skills in critical thinking, language proficiency, intercultural understanding, literary studies and contemporary approaches to modern languages and cultures, particularly Spanish, Italian, German, Modern Arabic, and Modern Chinese.

Linguistics is the scientific study of the human language faculty. Teaching and research in the Linguistics programs focus on two areas: linguistics as a branch of cognitive science, encompassing fields such as syntax, phonology and language acquisition; and the nature of language change, with particular emphasis on the Indo-European language family.

Programs

The Department of Classics, Modern Languages and Linguistics offers undergraduate programs leading to the BA degree in Classics, Italian, Spanish, and Linguistics. In addition, it offers Minor and Certificate programs in German, Modern Arabic Language and Culture, and Modern Chinese Language and Culture.

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

Students seeking admission to the honours program may apply either for direct entry on the University application form or, once in the program, to the departmental honours advisor normally following the completion of 30 credits.

All these programs can normally be completed within the regular three-year university sessions.

Classics

60 BA Honours in Classics

30 *Honours Core consisting of:*

- 6 CLAS 201³ and 202³, or 203³ and 204³, or 280⁶, or 290⁶
- 6 CLAS 211³ and 212³
- 6 CLAS 240³ and 242³
- 3 CLAS 260³
- 6 CLAS 383³ and 384³, or 391³ and 392³
- 3 CLAS 490³

Concentration in Ancient History and Archaeology

30 Honours Core (see above)

- 3 CLAS 230³
- 3 Chosen from CLAS 220³, 265³, 353³
- 3 CLAS 264³ or 267³
- 6 CLAS 341³ and 343³
- 6 Chosen from CLAS 363³, 364³, 365³
- 3 CLAS 369³
- 3 CLAS 460³
- 3 Credits in either Classics or another subject chosen in consultation with the Department

Concentration in Classical Languages and Literature

30 Honours Core (see above)

- 6 CLAS 201³ and 202³, or 203³ and 204³, or 280⁶, or 290⁶
- 6 Chosen from CLAS 321³, 322³, 330³
- 6 CLAS 383³ and 384³, or 391³ and 392³
- 6 CLAS 410³ and 411³, or 420³ and 421³
- 6 Chosen from CLAS 410³, 411³, 420³, 421³; LING 446³, 447³, 456³, 457³

NOTE: Students who intend to apply to graduate programs in Classics are strongly encouraged to take the 400-level courses in both Latin and Ancient Greek.

42 BA Major in Classics

15 *Major Core consisting of:*

- 6 CLAS 211³ and 212³
- 6 CLAS 240³ and 242³
- 3 CLAS 260³

Concentration in Ancient History and Archaeology

15 Major Core (see above)

- 3 CLAS 230³
- 3 Chosen from CLAS 220³, 265³, 353³
- 3 CLAS 264³ or 267³
- 6 CLAS 341³ and 343³
- 6 Chosen from CLAS 363³, 364³, 365³
- 3 CLAS 369³
- 3 Credits in either Classics or another subject chosen in consultation with the Department

Concentration in Classical Languages and Literature

15 Major Core (see above)

- 6 CLAS 201³ and 202³, or 203³ and 204³, or 280⁶, or 290⁶
- 6 Chosen from CLAS 321³, 322³, 330³
- 6 CLAS 383³ and 384³, or 391³ and 392³
- 6 CLAS 410³ and 411³, or 420³ and 421³
- 3 Credits in Classics or another subject chosen in consultation with the Department

24 Minor in Classical Languages and Literature

- 6 CLAS 201³ and 202³, or 203³ and 204³, or 280⁶, or 290⁶
- 6 CLAS 211³ and 212³
- 6 Chosen from CLAS 321³, 322³, 330³
- 6 CLAS 383³ and 384³, or 391³ and 392³

- 24 Minor in Classical Civilization**
 6 CLAS 211³ and 212³
 6 CLAS 240³ and 242³
 3 CLAS 260³
 6 Chosen from CLAS 220³, 265³, 353³
 3 CLAS 369³
- 24 Minor in Classical Archaeology**
 3 CLAS 260³
 6 CLAS 264³ and 267³
 6 Chosen from CLAS 363³, 364³, 365³
 3 CLAS 369³
 3 CLAS 460³
 3 Credits in either Classics or another subject chosen in consultation with the Department

Arabic (Modern Standard)

- 24 Minor in Modern Arabic Language and Culture**
 6 MARA 200⁶; or MARA 203³ and 207³
 12 MARA 206⁶, 240⁶
 3 Chosen from MARA 310³, 320³, 365³, 367³, 398³, 450³
 3 Chosen from MARA 250³ or higher; FLIT 362³; HIST 242³, 374³; POLI 391³, 395³; RELI 224³, 316³, 318³, 319³

NOTE: Upon consultation with the Department, students with a background in Arabic may be placed at a more advanced level in the language component of this program. Heritage speakers of Arabic and students with knowledge of the Arabic script must contact the Department for placement assessment.

- 30 Certificate in Modern Arabic Language and Culture**
 6 MARA 200⁶; or MARA 203³ and 207³
 12 MARA 206⁶, 240⁶
 6 Chosen from MARA 310³, 320³, 365³, 367³, 398³, 450³
 6 Chosen from MARA 250³ or higher; FLIT 362³; HIST 242³, 374³; POLI 391³, 395³; RELI 224³, 316³, 318³, 319³

NOTE: Upon consultation with the Department, students with a background in Arabic may be placed at a more advanced level in the language component of this program. Heritage speakers of Arabic and students with knowledge of the Arabic script must contact the Department for placement assessment.

Chinese (Modern)

- 30 Minor in Modern Chinese Language and Culture**
 18 MCHI 200⁶, 206⁶, 240⁶
 12 Chosen from MCHI 250³, 306³, 308³, 310³, 311³, 365³, 366³, 398³, 399⁶; HIST 262³, 367³; POLI 335³; RELI 360³
- 30 Certificate in Modern Chinese Language and Culture**
 18 MCHI 200⁶, 206⁶, 240⁶
 12 Chosen from MCHI 250³, 306³, 308³, 310³, 311³, 365³, 366³, 398³, 399⁶; HIST 262³, 367³; POLI 335³; RELI 360³

German

- 60 BA Honours in German***
 12 GERM 240⁶, or 241³ and 242³; 256³, 257³
 24 GERM 271³, 301³, 302³, 306³, 307³, 308³, 365³, 366³
 21 Credits chosen from 400-level courses in German, of which at least six credits must be from GERM 405³, 406³, 461³, 462³
 3 GERM 490³

NOTE: Students with advanced placement must replace the 200-level language courses with 300- or 400-level courses offered within the same program.

**Admission suspended for 2021-22.*

- 42 BA Major in German***
 12 GERM 240⁶, or 241³ and 242³; 256³, 257³
 15 Credits chosen from GERM 271³, 301³, 302³, 306³, 307³, 308³, 365³, 366³
 15 Credits chosen from 400-level courses in German, of which at least six credits must be from GERM 405³, 406³, 461³, 462³

NOTE: Students with advanced placement must replace the 200-level language courses with 300- or 400-level courses offered within the same program.

**Admission suspended for 2021-22.*

- 30 Minor in German Studies**
 12 Credits chosen from GERM 200⁶, or 201³ and 202³; 240⁶, or 241³ and 242³
 6 Credits chosen from GERM 230³ or 231³ or from courses higher than 242

- 9 Credits chosen from related disciplines in consultation with the Department; some example courses in related disciplines include HIST 235³; PHIL 374³, 385³, 485³, 486³; RELI 235³, 331³. Additional GERM courses may qualify to meet this requirement

- 3 Credits chosen from 400-level courses in German

NOTE: Students with advanced placement must replace the 200-level language courses with 300- or 400-level courses offered within the same program.

Italian

60 BA Honours in Italian

- 6 ITAL 240⁶, or ITAL 241³ and 242³

- 12 Credits chosen from ITAL 301³, 302³, 303³, 310³, 311³, 365³

- 39 Credits in an approved sequence chosen from courses higher than ITAL 302, of which at least 12 credits must be at the 400 level

- 3 ITAL 490³

NOTE: Students with advanced placement must replace the 200-level language courses with 300- or 400-level courses offered within the same program.

42 BA Major in Italian

- 6 ITAL 240⁶, or ITAL 241³ and 242³

- 12 Credits chosen from ITAL 301³, 302³, 303³, 310³, 311³, 365³

- 24 Credits in an approved sequence chosen from courses higher than ITAL 302, of which at least six credits must be at the 400 level

NOTE: Students with advanced placement must replace the 200-level language courses with 300- or 400-level courses offered within the same program.

30 Minor in Italian

- 30 Credits chosen from ITAL, of which at least 15 credits must be at the 300 level and three credits at the 400 level

NOTE: Students with advanced placement must replace the 200-level language courses with 300- or 400-level courses offered within the same program.

Spanish, Hispanic Cultures and Literatures

60 BA Honours in Spanish, Hispanic Cultures and Literatures

- 15 SPAN 240⁶ (or 241³ and 242³), 301³, 302³, 303³

- 12 Credits chosen from SPAN 310³, 311³, 320³, 321³, 362³, 363³, 365³

- 30 Credits chosen from all other courses above SPAN 303, of which at least 21 credits must be at the 400 level

- 3 SPAN 490³

NOTE: Students with advanced placement must replace the 200-level language courses with 300- or 400-level courses offered within the same program.

NOTE: Students registered in an Honours in Spanish, Hispanic Cultures and Literatures program may not take SPAN 308 for program credit.

60 BA Specialization in Spanish, Hispanic Cultures and Literatures

- 15 SPAN 240⁶ (or 241³ and 242³), 301³, 302³, 303³

- 12 Credits chosen from SPAN 310³, 311³, 320³, 321³, 362³, 363³, 365³

- 33 Credits chosen from all other courses above SPAN 303, of which at least 21 credits must be at the 400 level

NOTE: Students with advanced placement must replace the 200-level language courses with 300- or 400-level courses offered within the same program.

42 BA Major in Spanish, Hispanic Cultures and Literatures

- 15 SPAN 240⁶ (or 241³ and 242³), 301³, 302³, 303³

- 6 Credits chosen from SPAN 310³, 311³, 320³, 321³

- 3 Credits chosen from SPAN 362³, 363³, 365³

- 18 Credits chosen from all other courses above SPAN 303, of which at least 12 credits must be at the 400 level

NOTE: Students with advanced placement must replace the 200-level language courses with 300- or 400-level courses offered within the same program.

30 Minor in Spanish, Hispanic Cultures and Literatures

- 21 SPAN 200⁶ (or 201³ and 202³), 240⁶ (or 241³ and 242³), 301³, 302³, 303³

- 9 Credits chosen from courses above SPAN 303, of which at least three credits must be at the 400 level

NOTE: Students with advanced placement must replace the 200-level language courses with 300- or 400-level courses offered within the same program.

33 Minor in Spanish Translation

- 18 SPAN 200⁶ (or 201³ and 202³), 240⁶ (or 241³ and 242³), 301³, 303³

- 6 SPAN 306³, 307³

- 3 Credits chosen from SPAN 362³, 363³, 365³

3 Credits chosen from SPAN 473³, 474³, 475³

3 Credits of 400-level SPAN

NOTE: Students with advanced placement must replace the 200-level language courses with 300- or 400-level courses offered within the same program.

Linguistics

24 Core Program

24 LING 200³, 222³, 315³, 335³, 336³, 371³, 372³, 373³

60 BA Honours in Linguistics

24 Core Program

3 Credits chosen from LING 322³, 353³, 380³

9 LING 421³, 425³, 475³

9 Credits chosen from LING 415³, 435³, 436³, 437³, 471³, 473³

3* Credits chosen from LING 330³, 446³, 447³, 456³, 457³, 461³

9 Additional LING credits

3 LING 490³

*Students may substitute CLAS 201 or 203 for this requirement.

42 BA Major in Linguistics

24 Core Program

3 Credits chosen from LING 322³, 353³, 380³

6 Credits chosen from LING 415³, 421³, 425³, 471³, 473³, 475³, 477³

3 Credits chosen from LING 330³, 435³, 436³, 437³, 446³, 447³, 456³, 457³, 461³

6 Additional LING credits

24 Minor in Linguistics

6 LING 200³, LING 222³

18 Credits in Linguistics

Courses

PROGRAM COURSES:

Classics

CLAS 201 *Introductory Ancient Greek I* (3 credits)

This course presents students with the introductory elements of ancient Greek grammar, syntax, and vocabulary.

NOTE: Students who have received credit for CLAS 280 may not take this course for credit.

CLAS 202 *Introductory Ancient Greek II* (3 credits)

Prerequisite: CLAS 201. This course continues the study of Greek grammar, syntax, and vocabulary, and prepares students to begin reading ancient texts.

NOTE: Students who have received credit for CLAS 280 may not take this course for credit.

CLAS 203 *Introductory Latin I* (3 credits)

This course presents students with the introductory elements of Classical Latin grammar, syntax, and vocabulary.

NOTE: Students who have received credit for CLAS 290 may not take this course for credit.

CLAS 204 *Introductory Latin II* (3 credits)

Prerequisite: CLAS 203. This course continues the study of Classical Latin grammar, syntax, and vocabulary, and prepares students to begin reading ancient texts.

NOTE: Students who have received credit for CLAS 290 may not take this course for credit.

CLAS 210 *Classical Civilization* (3 credits)

This course provides a comprehensive introduction to the civilizations of Ancient Greece and Rome, focusing on history, archaeology, literature and thought from the Late Bronze Age through to the decline of the Roman Empire.

CLAS 211 *Greek Literature* (3 credits)

An introduction to the literature of ancient Greece, this course focuses on Homer and the epic cycle, the Homeric hymns, Hesiod and lyric poetry, tragedy and comedy. The texts are read in English translation.

CLAS 212 *Roman Literature* (3 credits)

An introduction to the major authors of the Roman world, this course focuses on Catullus, Virgil, Horace, Ovid and Lucretius; works of the dramatists, orators and satirists may also be included. The texts are read in English translation.

CLAS 220 Daily Life in Ancient Greece and Rome (3 credits)

This course explores the lifestyles, customs, and daily practices of people in Ancient Greece and Rome through archaeological, historical, and literary sources.

NOTE: Students who have received credit for CLAS 221 or 222 may not take this course for credit.

CLAS 230 (also listed as HIST 219)

Ancient Near East (3 credits)

A political, social, economic, and intellectual history of the ancient Near East, this course surveys the period from the origins of civilization in the middle of the fourth millennium to Alexander the Great's conquest of the Persian Empire in the latter part of the fourth century BC.

NOTE: Students who have received credit for HIST 219 may not take this course for credit.

CLAS 240 (also listed as HIST 223)

Greek History from the Bronze Age to Alexander (3 credits)

This course offers a political, social, economic, and cultural history of Greece from the Minoan-Mycenaean period in the second millennium to the end of Classical Greek civilization in the fourth century BC, with special emphasis placed upon Athens.

NOTE: Students who have received credit for HIST 223 may not take this course for credit.

CLAS 242 (also listed as HIST 225)

History of the Roman Republic (3 credits)

This course offers a political, social, economic, and cultural history of Rome from the city's origins to the establishment of the Roman Empire under the Emperor Augustus.

NOTE: Students who have received credit for HIST 225 may not take this course for credit.

CLAS 260 Introduction to Greek Archaeology (3 credits)

This course provides a general overview of the material remains of ancient Greece from the Bronze Age to the Hellenistic period. It addresses the function, context, dating, and meaning of artifacts, as well as methods of analysis.

NOTE: Students who have received credit for CLAS 266 may not take this course for credit.

CLAS 264 Egyptian Archaeology (3 credits)

This course examines the principal monuments of Egypt from the predynastic through the Pharaonic period, ending with the Roman conquest of Egypt. Aspects considered may include the pyramids and tombs, paintings, writing systems, and archaeological evidence of Egyptian contributions to science, navigation, religion, and culture.

NOTE: Students who have received credit for this topic under a CLAS 298 number may not take this course for credit.

CLAS 265 Mythologies of the Ancient Mediterranean (3 credits)

This course provides a survey of the myths of the ancient Mediterranean. The focus is on Greek and Roman mythology, with attention also given to the mythologies of the Ancient Near East.

NOTE: Students who have received credit for CLAS 261 or 262 may not take this course for credit.

CLAS 267 The Archaeology of the Greek Bronze Age (3 credits)

The Bronze Age in Mainland Greece, Crete, and the Greek Islands.

CLAS 280 Introductory Ancient Greek: Intensive Course (6 credits)

Greek grammar, syntax, and vocabulary are presented in an intensive one-term course that enables students to begin reading ancient texts.

NOTE: Students who have received credit for CLAS 201 or 202 may not take this course for credit. This course covers the same material as CLAS 201 and 202.

CLAS 290 Introductory Latin: Intensive Course (6 credits)

Latin grammar, syntax, and vocabulary are presented in an intensive one-term course that enables students to begin reading ancient texts.

NOTE: Students who have received credit for CLAS 203 or 204 may not take this course for credit. This course covers the same material as CLAS 203 and 204.

CLAS 298 Selected Topics in Classics (3 credits)

CLAS 299 Selected Topics in Classics (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

CLAS 321 Greek Epic Poetry (3 credits)

Prerequisite: CLAS 211. This course provides an in-depth study of Greek epic poetry from the Archaic through to the Hellenistic period. The primary focus is on early Hexameter poetry (Homer, Hesiod, and the Homeric Hymns), as well as the development of the genre in the Hellenistic period as represented by Callimachus and Apollonius of Rhodes. The texts are read in English translation.

CLAS 322 *Latin Literature of the Augustan Period* (3 credits)

Prerequisite: CLAS 212. This course provides an in-depth study of the Golden Age of Latin poetry in the period of transition from Republic to Empire. Authors studied include Virgil, Horace, Propertius, and Ovid. The texts are read in English translation.

CLAS 330 *Greek Drama* (3 credits)

Prerequisite: CLAS 211. Designed as an introduction to Greek drama from the origins of tragedy in the sixth century to New Comedy, this course consists of a detailed study of selected plays of Aeschylus, Sophocles, Euripides, Aristophanes and Menander. Also considered are Aristotle's *Poetics* and production techniques of the Greek theatre. The texts are read in English translation.

CLAS 341 *(also listed as HIST 323)*

Greek History from Alexander to the Roman Conquest (3 credits)

A political, social, economic, and cultural history of the Greek world from Alexander the Great to the Roman conquest of Greece in 146 BCE.

NOTE: Students who have received credit for CLAS 241 or HIST 224 or HIST 323 may not take this course for credit.

CLAS 343 *(also listed as HIST 327)*

History of the Roman Empire (3 credits)

This course offers a political, social, economic, and cultural history of the Roman Empire from Augustus to the end of the Roman Empire in the West.

NOTE: Students who have received credit for CLAS 243 or HIST 226 or HIST 327 may not take this course for credit.

CLAS 353 *Representations of Women in Ancient Greece and Rome* (3 credits)

The ancient Greek and Roman representations of women are examined within their historical and cultural contexts. Focus is placed on the changing social roles, status and images of women in antiquity. Both visual and literary sources are used.

CLAS 363 *Archaeology of Archaic Greece* (3 credits)

Prerequisite: CLAS 260. This course explores the cultural developments of the period (ca. 650 to 450 BCE) through its material remains.

NOTE: Students who have received credit for CLAS 263 or for this topic under a CLAS 298 number may not take this course for credit.

CLAS 364 *Classical Greek Art and Archaeology* (3 credits)

Prerequisite: CLAS 260. An exploration of the monuments and artifacts of Classical Greece, ca. 480 to 380 BCE, this course concentrates on architecture, sculpture, vase painting, artistic production and methods of interpretation.

CLAS 365 *Art and Archaeology of the Hellenistic Age* (3 credits)

Prerequisite: CLAS 260. An investigation of the art and archaeology of the Hellenistic age from the death of Alexander in 323 to the mid-first century BCE, this course examines architecture, sculpture, mosaics, wall painting and the minor arts; emphasis is on the Roman influence on Greek art of the period.

CLAS 369 *Roman Art and Archaeology* (3 credits)

An introduction to the artifacts and monuments of Roman civilization from the sixth century BC through the Empire (third century AD), this course examines artistic styles, techniques, function, iconography and interpretation.

CLAS 370 *Practicum in Archaeology* (3 credits)

Prerequisite: Permission of the Department. This course is designed to give the student on-site fieldwork experience in either survey or excavation work. At least one month in the field is required.

CLAS 383 *Intermediate Ancient Greek I: Prose* (3 credits)

Prerequisite: CLAS 202 or 280. In this course, students read prose works of authors such as Herodotus, Xenophon and Plato in the original Greek texts. Special attention is given to grammatical and syntactical structures of the language.

CLAS 384 *Intermediate Ancient Greek II: Poetry* (3 credits)

Prerequisite: CLAS 383. In this course, students read selected works of the ancient poets in the original Greek texts, with an emphasis on Homer and Euripides. Special attention is given to grammatical and syntactical structures of the language.

CLAS 391 *Intermediate Latin I: Prose* (3 credits)

Prerequisite: CLAS 204 or 290. Prose works of authors such as Caesar, Cornelius Nepos, Cicero and Pliny are read in the original Latin texts. Attention is given to further study of grammatical and syntactical structures of the language.

CLAS 392 *Intermediate Latin II: Poetry* (3 credits)

Prerequisite: CLAS 391. Selected works of the Roman poets are read in the original Latin texts, with emphasis on Catullus, Ovid, Martial and Petronius. Attention is given to further study of grammatical and syntactical structures of the language.

CLAS 398 *Selected Topics in Classics* (3 credits)

CLAS 399 *Selected Topics in Classics* (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

CLAS 410 Advanced Ancient Greek I: Prose (3 credits)

Prerequisite: CLAS 384. Works of the Greek historians, philosophers and orators are studied in depth in the original Greek texts. While authors read vary from year to year, the primary focus is on Herodotus, Thucydides, Plato or Demosthenes. Advanced issues of grammar and syntax in addition to textual constitution, as well as broader issues of historical and literary importance, are discussed.

CLAS 411 Advanced Ancient Greek II: Poetry (3 credits)

Prerequisite: CLAS 410. Works of Greek epic, lyric or dramatic poetry are studied in depth in the original Greek texts. While authors read vary from year to year, the primary focus is on Homer, Aeschylus, Sophocles, Euripides or Pindar. Advanced issues of grammar and syntax in addition to textual constitution, as well as broader issues of historical and literary importance, are discussed.

CLAS 420 Advanced Latin I: Prose (3 credits)

Prerequisite: CLAS 392. Works of the Roman historians, philosophers and orators are studied in depth in the original Latin texts. While authors read vary from year to year, the primary focus is on Cicero, Sallust, Livy or Tacitus. Advanced issues of grammar and syntax in addition to textual constitution, as well as broader issues of historical and literary importance, are discussed.

CLAS 421 Advanced Latin II: Poetry (3 credits)

Prerequisite: CLAS 420. Works of the Roman poets are studied in depth in the original Latin texts. While authors read vary from year to year, the primary focus is on Virgil, Ovid, Horace, Juvenal or Lucretius. Advanced issues of grammar and syntax in addition to textual constitution, as well as broader issues of historical and literary importance, are discussed.

CLAS 460 Ancient Pottery: History, Analysis, and Interpretation (3 credits)

Prerequisite: CLAS 260 and completion of 6 credits at the 300-level in Archaeology. This course introduces students to the most common archaeological artifact, pottery. It addresses the technology and history of Greek and Roman ceramic wares, and uses a hands-on approach to instruct students in strategies for extracting information from pottery sherds.

CLAS 480 Tutorial (3 credits)

Prerequisite: Permission of the Department. This course provides students with the opportunity to study a topic of individual interest under the guidance of a faculty member.

CLAS 490 Honours Thesis (3 credits)

Prerequisite: Permission of the Department. The student works with an individual faculty member in a particular area of archaeology, history or philology to produce an extensive research paper.

CLAS 498 Advanced Topics in Classics (3 credits)**CLAS 499 Advanced Topics in Classics** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

Arabic (Modern Standard)

THE DEPARTMENT RESERVES THE RIGHT TO TRANSFER A STUDENT TO A HIGHER-LEVEL LANGUAGE COURSE IF IT IS DEEMED THAT THE COURSE FOR WHICH THE STUDENT HAS REGISTERED IS NOT APPROPRIATE FOR THE EXTENT OF HIS OR HER KNOWLEDGE OF THE LANGUAGE.

MARA 200 Introduction to Modern Standard Arabic I (6 credits)

This course provides an intensive introduction to the basic elements of Modern Standard Arabic for the student with no knowledge of the language. Instruction addresses all the language competencies of Modern Standard Arabic.

NOTE: Students who have received credit for MARA 203 or 205 or 207 or heritage speakers or students with knowledge of the Arabic script may not take this course for credit.

MARA 203 Modern Standard Arabic for Heritage Speakers I (3 credits)

This course provides an introduction to the basic elements of Modern Standard Arabic for students with basic or limited knowledge of the language. It is designed for heritage speakers with no reading and writing skills in Modern Standard Arabic but with knowledge of dialect vocabulary and oral skills. The course is also for non-heritage students who know the Arabic script but have never studied the Arabic language.

NOTE: Heritage speakers placed into this course can continue with MARA 207 while non-heritage speakers can continue with MARA 206 upon successful completion of this course.

NOTE: Students who have received credit for this topic under a MARA 298 number may not take this course for credit.

MARA 206 Introduction to Modern Standard Arabic II (6 credits)

Prerequisite: MARA 200 or 203 or equivalent. This course continues the introduction to the basic elements of Modern Standard Arabic. Students practise conversation skills on basic general topics.

NOTE: Students who have received credit for MARA 207 may not take this course for credit.

MARA 207 *Modern Standard Arabic for Heritage Speakers II* (3 credits)

Prerequisite: MARA 203 or permission of the Department. This course continues the introduction to the basic elements of Modern Standard Arabic. Students practise conversation skills through basic general topics. This course is designed for Arabic heritage speakers who have completed MARA 203 and/or learners who have basic introductory Arabic competence.

MARA 240 *Intermediate Modern Standard Arabic I* (6 credits)

Prerequisite: MARA 206 or 207 or equivalent. This course provides a review of the basic elements of Modern Standard Arabic and continues to develop the four language skills within their cultural context. Students prepare brief essays and oral presentations.

MARA 250 *Intermediate Modern Standard Arabic II* (3 credits)

Prerequisite: MARA 240 or equivalent. This course is a continuation of MARA 240. It prepares intermediate language students in diverse aspects of reading, writing, and conversation. In addition to improving listening comprehension and speaking skills, this course places increased emphasis on reading and writing.

MARA 301 *Advanced Arabic* (3 credits)

Prerequisite: MARA 250 or equivalent. This course builds upon the student's foundation in the Arabic language. Students learn new grammatical structures and expand their vocabulary, while reviewing the grammatical structures acquired previously. Instruction builds particularly on the student's ability to respond to the works studied with advanced writing and oral strategies.

MARA 308 *Arabic for Business* (3 credits)

Prerequisite: MARA 250 previously or concurrently. This course is designed to give intermediate and advanced students a solid foundation in business vocabulary, correspondence, and basic business practices, as well as the cultural concepts necessary to enable them to express themselves in the Arabic-speaking business world.

NOTE: Students who have received credit for this topic under a MARA 398 number may not take this course for credit.

MARA 310 *Introduction to the Literature of the Arab World* (3 credits)

This course provides an introduction to the works of some of the major writers of contemporary Arabic culture. The course is taught in English and readings are in English translation.

MARA 320 *Modern Arabic Fiction* (3 credits)

This course examines key developments in Arabic fiction related to the contemporary Arabic-speaking world with the aim of highlighting the distinctive texture of its experiences and identities. The chosen texts cover a wide range of topics and convey the complex and rich cultural diversity of the Arab World. The course is taught in English and knowledge of Arabic is not required.

MARA 365 *Culture and Civilization of the Arab World: The Golden Age* (3 credits)

This course provides an overview of the cultural history of the Arab world with an emphasis on the "Golden Age" (eighth to 13th century). Special attention is given to some topics at the core of this period, namely the intellectual dynamics, sciences and arts. The Arab civilization is put into the political, social and religious contexts that allowed it to emerge and flourish. This course is taught in English and no prior knowledge of Arabic is required.

NOTE: Students who have received credit for MARA 365 under a different title may not take this course for credit.

MARA 367 *Culture and Civilization of the Arab World: The Modern Age* (3 credits)

This course presents a comprehensive survey of modern Arab culture, from the "Nahda" or "Revival" of the late-19th and early-20th to the 21st century. It discusses issues necessary to understand the modern Arab world including media and cinema, art, architecture, folklore, and food. The roles played by various minorities and the Arab youth are also studied. This course is taught in English and no knowledge of Arabic is required.

MARA 398 *Special Topics in Arabic Language and Culture* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

MARA 450 *Arabic Women Writers* (3 credits)

This course presents a detailed analysis of a selection of works of modern fiction, non-fiction, and poetry by female Arab writers. It explores modern Arabic women's writing in relation to Arabic literary criticism and feminist theory. The majority of the course is devoted to analyzing texts originally written in Arabic but significant works by Arab women written in French and English are also discussed. This course is taught in English and no prior knowledge of Arabic is required. Advanced-level students — i.e. students placed at the 250 level or higher in Arabic language courses — must do the readings and/or submit their work in Arabic.

NOTE: Students who have received credit for this topic under an ENGL 398 or MARA 398 number may not take this course for credit.

MARA 480 *Tutorial* (3 credits)

Prerequisite: Permission of the Department. This course provides students with the opportunity to study a topic of individual interest under the guidance of a faculty member.

Chinese (Modern)

THE DEPARTMENT RESERVES THE RIGHT TO TRANSFER A STUDENT TO A HIGHER-LEVEL LANGUAGE COURSE IF IT IS DEEMED THAT THE COURSE FOR WHICH THE STUDENT HAS REGISTERED IS NOT APPROPRIATE FOR THE EXTENT OF HIS OR HER KNOWLEDGE OF THE LANGUAGE.

MCHI 200 *Introduction to Modern Chinese I* (6 credits)

This course provides an intensive introduction to the basic elements of Chinese for the student with no knowledge of the language. Emphasis is on basic grammatical concepts, listening comprehension, and sound reproduction. Approximately 300 characters are studied.

NOTE: Students whose first language is Chinese, or who have received a substantial part of their education in Chinese, may not register for this course.

NOTE: Students who have received credit for MCHI 205 may not take this course for credit.

NOTE: Lab practice is compulsory in addition to class time: two hours per week for six-credit sections.

MCHI 206 *Introduction to Modern Chinese II* (6 credits)

Prerequisite: MCHI 200. This course continues the introduction to the basic elements of Chinese, adding approximately 300 further characters.

NOTE: Students whose first language is Chinese, or who have received a substantial part of their education in Chinese, may not register for this course.

NOTE: Lab practice is compulsory in addition to class time: two hours per week for six-credit sections.

MCHI 240 *Intermediate Modern Chinese I* (6 credits)

Prerequisite: MCHI 206 or equivalent. The aim of this course is to consolidate the knowledge acquired in MCHI 200 and 206 and pursue communication skills on basic general topics in all competencies of the language, adding approximately 300 further characters.

MCHI 250 *Intermediate Modern Chinese II* (3 credits)

Prerequisite: MCHI 240 or equivalent. This course is a continuation of MCHI 240. It prepares intermediate language students in diverse aspects of reading, writing, and conversation. In addition to improving listening comprehension and speaking skills, this course places increased emphasis on reading and writing.

NOTE: Students who have received credit for this topic under an MCHI 398 number may not take this course for credit.

MCHI 306 *Introduction to Translation* (3 credits)

Prerequisite: MCHI 240. The emphasis of this course is placed on advanced grammar for the purposes of writing and translation.

NOTE: Students who have received credit for this topic under an MCHI 398 number may not take this course for credit.

MCHI 308 *Chinese for Business* (3 credits)

Prerequisite: MCHI 240. This course provides students with marketable skills including linguistic competence, cross-cultural proficiency, and knowledge about business in China across a variety of fields.

MCHI 310 *Introduction to Modern Chinese Literature* (3 credits)

This course provides an introduction to the works of some of the major writers of contemporary Chinese culture. The course is taught in English and reading materials are in English translation.

MCHI 311 *Classical Chinese Literature* (3 credits)

Taught in English, this course introduces classical Chinese literature from 1500 BCE to the end of the 19th century in its historical and cultural setting. Covering the four major literary genres of poetry, prose, drama and fiction, students learn both key Chinese aesthetic concepts and Western critical theory, with a view to encouraging cross- and intercultural interpretations. Major works are read in English translation.

NOTE: Students who have received credit for this topic under an MCHI 398 number may not take this course for credit.

MCHI 365 *Introduction to Chinese Cultural Traditions* (3 credits)

This course is an introduction to the formation and traditions of Chinese culture. Topics may include Confucian and Taoist philosophy, literature, and the arts. This course is taught in English.

NOTE: Students who have received credit for this topic under an MCHI 398 number may not take this course for credit.

MCHI 366 *Chinese Visual Culture* (3 credits)

Taught in English, this course introduces students to the traditions and achievements of Chinese visual culture. Employing contemporary critical approaches, students explore both mass and high cultures, with a primary focus on the development of Chinese painting from the 10th century to the present, with an emphasis on the interpretation of images.

NOTE: Students who have received credit for this topic under an MCHI 398 number may not take this course for credit.

MCHI 398 *Special Topics in Chinese Language and Culture* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

MCHI 399 *Special Topics in Chinese Language and Culture* (6 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

MCHI 480 *Tutorial* (3 credits)

Prerequisite: Permission of the Department. This course provides students with the opportunity to study a topic of individual interest under the guidance of a faculty member.

German

THE DEPARTMENT RESERVES THE RIGHT TO TRANSFER A STUDENT TO A HIGHER-LEVEL LANGUAGE COURSE IF IT IS DEEMED THAT THE COURSE FOR WHICH THE STUDENT HAS REGISTERED IS NOT APPROPRIATE FOR THE EXTENT OF HIS OR HER KNOWLEDGE OF THE LANGUAGE.

GERM 200 *Introductory German: Intensive Course* (6 credits)

This course provides a comprehensive introduction to most of the basic elements of the German language for the student with no knowledge of German. Practice is provided through short readings, conversation, composition, and lab work.

NOTE: Students who have received credit for GERM 201, 202, or equivalent may not take this course for credit.

NOTE: This course covers the same material as GERM 201 and 202.

GERM 201 *Introductory German I* (3 credits)

This course provides an introduction to the elements of the German language for the student with no knowledge of German.

Practice is provided through short readings, conversation, composition, and lab work.

NOTE: Students who have received credit for GERM 200 or equivalent may not take this course for credit.

GERM 202 *Introductory German II* (3 credits)

Prerequisite: GERM 201 or equivalent. This course is a continuation of GERM 201 and completes the study of the basic elements of the German language. Practice is provided through short readings, conversation, composition, and lab work.

NOTE: Students who have received credit for GERM 200 or equivalent may not take this course for credit.

GERM 230 *Introduction to German Culture* (3 credits)

This course offers a panoramic study of the major components of the culture of German-speaking countries from the Middle Ages to contemporary times. Attention is given to these countries' artistic, social, political, and economic life. This course is taught in English.

GERM 231 *German Literature in Translation* (3 credits)

This course focuses on reading and discussion of 20th-century literary works and films from Germany, Austria, and Switzerland. Works translated from German are used. This course is taught in English, but advanced German students are encouraged to read the texts in German.

GERM 240 *Intermediate German: Intensive Course* (6 credits)

Prerequisite: GERM 200 or 202. This course provides a review of German grammar in a single term and furnishes additional details not dealt with in the introductory courses. Practice is provided through readings, discussions, and composition.

NOTE: Students who have received credit for GERM 241, 242, or equivalent may not take this course for credit.

NOTE: This course covers the same material as GERM 241 and 242.

GERM 241 *Intermediate German I* (3 credits)

Prerequisite: GERM 200 or 202. This course provides a review of German grammar and deals with additional details not covered in the introductory courses. Practice is provided through short readings, discussions, and composition.

NOTE: Students who have received credit for GERM 240 or equivalent may not take this course for credit.

GERM 242 *Intermediate German II* (3 credits)

Prerequisite: GERM 241 or equivalent. This course is a continuation of GERM 241. It completes the review of the grammar and includes additional details not covered in the introductory courses. Practice is provided through short readings, discussions, and composition.

NOTE: Students who have received credit for GERM 240 or equivalent may not take this course for credit.

GERM 260 *German for Reading Knowledge* (3 credits)

This course introduces the student to reading strategies, grammar, resources, and basic vocabulary and leads to a second-year reading knowledge of German in 13 weeks. This course is taught in English.

NOTE: Students registered in the German Minor program may not take this course for credit.

GERM 298 *Selected Topics in German* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

GERM 301 Advanced Grammar and Composition I (3 credits)

Prerequisite: GERM 240 or 242 or permission of the Department. This course is designed to help students understand advanced aspects of German grammar and to provide practice in the correct and effective writing of German.

GERM 302 Advanced Grammar and Composition II (3 credits)

Prerequisite: GERM 301. This course continues the study of advanced aspects of German grammar and provides practice in the correct and effective writing of German by means of composition such as the summary, description, narration, argumentation, and essay.

GERM 305 Conversational German (3 credits)

Prerequisite: GERM 240 or 242 or equivalent. This course is offered to non-native speakers of German. Its main goal is for students to improve their oral proficiency in German. This course aims to increase students' competence levels in listening, reading, and writing.

NOTE: Students who have received credit for GERM 270 or 370 may not take this course for credit.

GERM 306 Introduction to Translation (3 credits)

Prerequisite: GERM 240 or 242. This course examines German and English grammar in a comparative context in order to provide a basis for translation between the two languages. It also aims to develop lexical and semantic knowledge of the German language through analysis of textual materials, with special focus on words and idiomatic expressions that are essential to clear and effective communication. Students translate short texts from a variety of fields, primarily from English to German.

GERM 307 Translation Practice (3 credits)

Prerequisite: GERM 306. This course continues the examination of German and English grammar in a practical context as a basis for translation between the two languages. It also enhances student lexical and semantic knowledge of the German language through direct, practical experience in translation. Students improve their vocabulary and linguistic accuracy by exploring the range of meanings associated with particular structures and idiomatic expressions. Translation is primarily from English to German.

GERM 308 German for Business (3 credits)

Prerequisite: GERM 240 or 242 or equivalent. This course provides students with marketable skills including linguistic competence, cross-cultural proficiency, and knowledge about business in Germany across a variety of fields.

NOTE: Students who have received credit for this topic under a GERM 398 number may not take this course for credit.

GERM 310 Introduction to Modern German Literature I (3 credits)

Prerequisite: GERM 301. This course provides a general overview of the major authors and trends of German literature from 1750 to 1900 within an historical context.

GERM 311 Introduction to Modern German Literature II (3 credits)

Prerequisite: GERM 301. This course provides a general overview of the major authors and trends of German literature in the 20th century within an historical context.

GERM 361 Topics in the Culture of German-Speaking Nations (3 credits)

Prerequisite: GERM 240 or 242. Topics vary from year to year. Possible topics include German film; literature of the Counter-culture; Germany and the Holocaust; immigrant culture and its discourse; women's writing; popular culture; Medieval Germany: kings, castles, and minstrels; cultural diversity in German-speaking nations. Specific topics for this course are stated in the Undergraduate Class Schedule.

NOTE: Students may take this course twice for credit in their program provided the subject matter is different.

GERM 362 Modern Germany (3 credits)

Prerequisite: GERM 240 or 242. This course gives an overview of the developments in Germany throughout the 20th century. The emphasis of the course may vary from year to year with such topics as Germany between World War I and II, the formative years after WWII and the development of East and West Germany, and the unified Germany. Materials to be studied include historical and topical documents, film, video, and web-based resources.

GERM 375 Outreach Experience Practicum (3 credits)

Prerequisite: Permission of the Department. This course is designed to give the student practical experience related to German language and culture and/or German studies. It is designed to complement the student's academic program with outreach to the larger community in the form of organizing an event, working at an internship in a German cultural or educational institution of Montreal or similar. Students develop an outreach plan in consultation with the Department and produce a final report of their experience.

GERM 398 Selected Topics in German (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

GERM 410 Cyborgs, Robots and Automata in German Literature, Film and Video Games (3 credits)

This course examines the figure of the android and explores representations of artificial beings in German literature, cinema, and video games. A focus is on issues of technology, art, gender, race, and class. Students receive insights into narrative constructions

as well as ludology (including game history, design and reception) by exploring how video games challenge traditional models of understanding and approaching texts. The language of instruction is English, and no prior knowledge of the German language is required. Advanced-level students — i.e. students placed at the 300 level or higher in German language courses — must do the readings and submit their work in German.

GERM 420 *Of German Witches, Ghosts, Daemons and Vampires* (3 credits)

This course explores how the strange, the magical, the supernatural and the uncanny (*Das Unheimliche*) are constructed in German texts from 1500 to the present. This course surveys a wide array of texts (novels, short stories, historical documents, fairy tales, films as well as video games) that deal with the phenomena of witches, ghosts, daemons and vampires. The language of instruction is English, and no prior knowledge of the German language is required. Advanced-level students — i.e. students placed at the 300 level or higher in German language courses — must do the readings and submit their work in German.

GERM 440 *Dandies, Flâneurs and Tricksters: Crossover Figures in Modernism and Pop Modernism* (3 credits)

This course introduces international literature and film, mainly from the 20th and 21st centuries with a strong focus on young German authors associated with *Popliteratur*. Works focus on the perspective of particular literary characters who challenge established boundaries or on allegories of crisis. In addition to becoming acquainted with theoretical texts, students explore contemporary German identity narratives and their deep roots in the metaphysical tradition. The language of instruction is English, and no prior knowledge of the German language is required. Advanced-level students — i.e. students placed at the 300 level or higher in German language courses — must do the readings and submit their work in German.

NOTE: Students who have received credit for this course under an ENGL 398 or a GERM 498 number may not take this course for credit.

GERM 450 *German Women Writers Across the Ages* (3 credits)

This course investigates the changing literary and social roles of German women from the 18th to the 21st century. Selected readings of women's literary and cultural productions will also illustrate the history of gender coding from the period of *Empfindsamkeit* to the *fin de siècle*. In addition to examining cultural artifacts, such as novels, plays, screen scripts, paintings and advertisements, the course also offers an insight into the Women's movement (both in Eastern and Western Germany). An introduction to main concepts of gender theory provides the basis to analyze the variety of gender identities and representations. The language of instruction is English, and no prior knowledge of the German language is required. Advanced-level students — i.e. students placed at the 300 level or higher in German language courses — must do the readings and submit their work in German.

GERM 480 *Tutorial I* (3 credits)

Prerequisite: Permission of the Department. This course offers guided readings in German language and/or literature, to meet the student's individual needs. At least one major written assignment is required.

GERM 481 *Tutorial II* (3 credits)

Prerequisite: Permission of the Department. This course offers guided readings in German language and/or literature, to meet the student's individual needs. At least one major written assignment is required.

GERM 482 *Tutorial III* (3 credits)

Prerequisite: Permission of the Department. This course offers guided readings in German language and/or literature, to meet the student's individual needs. At least one major written assignment is required.

GERM 483 *Tutorial IV* (3 credits)

Prerequisite: Permission of the Department. This course offers guided readings in German language and/or literature, to meet the student's individual needs. At least one major written assignment is required.

GERM 490 *Honours Essay Tutorial* (3 credits)

Prerequisite: Honours status. This course provides the honours candidate with the opportunity to prepare an extensive research essay, on a topic to be chosen by the candidate with the approval of a supervising member of the faculty of the German section.

GERM 498 *Advanced Topics in German* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

Italian

THE DEPARTMENT RESERVES THE RIGHT TO TRANSFER A STUDENT TO A HIGHER-LEVEL LANGUAGE COURSE IF IT IS DEEMED THAT THE COURSE FOR WHICH THE STUDENT HAS REGISTERED IS NOT APPROPRIATE FOR THE EXTENT OF HIS OR HER KNOWLEDGE OF THE LANGUAGE.

ITAL 200 *Introductory Italian: Intensive Course* (6 credits)

This course provides a comprehensive introduction to the Italian language, completing the fundamental aspects of grammar in one term.

NOTE: Students who have received credit for ITAL 201 or 202 or 210 or 211 or 253 or 254 may not take this course for credit.

NOTE: This course covers the same material as ITAL 201 and 202.

ITAL 201 *Introductory Italian I* (3 credits)

This course provides an introduction to the basic elements of Italian for the student with no knowledge of the language.

NOTE: Students who have received credit for ITAL 200 or 210 or 211 or 253 or 254 may not take this course for credit.

ITAL 202 *Introductory Italian II* (3 credits)

Prerequisite: ITAL 201 or equivalent. The objective is to complete the study of fundamental aspects of Italian grammar.

NOTE: Students who have received credit for ITAL 200 or 210 or 211 or 253 or 254 may not take this course for credit.

ITAL 210 *Italian for Heritage Speakers I* (3 credits)

Prerequisite: Permission of the Department. This course provides an introduction to the basic elements of the Italian language and is designed for heritage speakers of Italian and/or students with some previous passive knowledge or exposure to the language, who wish to strengthen their linguistic knowledge of and skills in Italian. Emphasis is placed on grammar, reading and writing, vocabulary development, and exposure to the language and culture of Italian communities. Both oral and written expression are emphasized.

NOTE: Students who have received credit for ITAL 200 or 201 or 202 or 253 or 254, or for this topic under an ITAL 298 number, may not take this course for credit.

ITAL 211 *Italian for Heritage Speakers II* (3 credits)

Prerequisite: ITAL 210 or permission of the Department. This course is a continuation of ITAL 210 designed for heritage speakers of Italian and/or students with some previous passive knowledge or exposure to the language, who wish to strengthen their linguistic knowledge of and skills in Italian. Emphasis is placed on grammar, reading and writing, vocabulary development, and exposure to the language and culture of Italian communities. Both oral and written expression are emphasized.

NOTE: Students who have received credit for ITAL 200 or 201 or 202 or 253 or 254, or for this topic under an ITAL 298 number, may not take this course for credit.

ITAL 240 *Intermediate Italian: Intensive Course* (6 credits)

Prerequisite: ITAL 200 or 202 or 211 or equivalent. This course provides a review of Italian grammar in one term and deals with additional details not covered in the introductory course. Practice is provided through readings, discussions, and composition.

NOTE: Students who have received credit for ITAL 241 or 242 or 253 or 254 may not take this course for credit.

NOTE: This course covers the same material as ITAL 241 and 242.

ITAL 241 *Intermediate Italian I* (3 credits)

Prerequisite: ITAL 200 or 202 or 211 or equivalent. This course provides a review of Italian grammar and deals with additional details not covered in the introductory courses. Practice is provided through short readings, discussions, and composition.

NOTE: Students who have received credit for ITAL 240 or 253 or 254 may not take this course for credit.

ITAL 242 *Intermediate Italian II* (3 credits)

Prerequisite: ITAL 241 or equivalent. This course is a continuation of ITAL 241. It completes the review of the grammar and provides additional details not covered in the introductory courses. Practice is provided through short readings, discussions, and composition.

NOTE: Students who have received credit for ITAL 240 or 253 or 254 may not take this course for credit.

ITAL 298 *Selected Topics in Italian* (3 credits)**ITAL 299 *Selected Topics in Italian*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

ITAL 301 *Advanced Grammar and Writing I* (3 credits)

Prerequisite: ITAL 240 or 242 or 254 or equivalent with a grade of C or higher. This course provides students with a thorough grounding in the essentials of Italian grammar, while revising and improving morpho-syntactic structures and syntax, as well as developing reading comprehension techniques, commentary writing skills, acquiring competence in essay writing and developing oral and aural skills. Aspects of Italian history, culture, and contemporary life are also introduced through readings, listening materials, videos and films and through the use of online technologies.

ITAL 302 *Advanced Grammar and Writing II* (3 credits)

Prerequisite: ITAL 301 or equivalent. This course continues to provide students with a thorough grounding in the fundamentals of Italian grammar. The course also focuses on using effective stylistic resources and formal conventions in writing, especially for essays and related texts. Aspects of Italian history, culture, and contemporary life are introduced through readings, listening materials, videos and films and through the use of online technologies.

ITAL 303 *Introduction to Academic Writing in Italian* (3 credits)

Prerequisite: ITAL 240 or 242 or equivalent with a grade of C or higher. This course offers a survey of the major rhetorical devices and methodological tools for the critical reading of literary and other texts, and for the production of academic essays in Italian. The course covers basic notions of narratology and rhetoric, as well as discourse analysis and critical thinking. Activities include close reading of texts and practical work in research and documentation, as well as the presentation of well-organized, analytical prose.

NOTE: Students who have received credit for this topic under an ITAL 398 number may not take this course for credit.

ITAL 305 Communicative Strategies and Oral Communication (3 credits)

Prerequisite: ITAL 240 or 242 or equivalent with a grade of C or higher. The main goal of this course is to improve students' oral communication in Italian. The course also develops other language skills: listening, reading, and to some extent, writing.

NOTE: This course is offered to non-native speakers of Italian. Upon consultation with the Department, heritage speakers of Italian may receive permission to take this course for credit.

NOTE: Students who have received credit for this topic under an ITAL 398 number may not take this course for credit.

ITAL 306 Introduction to Translation (3 credits)

Prerequisite: ITAL 240 or 242 or equivalent with a grade of C or higher. This course examines Italian and English grammar in a comparative context to provide a sound basis for translation between the two languages. It also aims to develop lexical and semantic knowledge of the Italian language through analysis of textual materials. Students translate short texts from a variety of fields such as literature, business, journalism, politics, and science. Translation is primarily from English to Italian.

NOTE: Students who have received credit for ITAL 256 or 257, or for this topic under an ITAL 398 number, may not take this course for credit.

ITAL 307 Translation Practice (3 credits)

Prerequisite: ITAL 306 or equivalent. This course is a continuation of ITAL 306. It deals with advanced problems and techniques of translation from Italian and into Italian.

NOTE: Students who have received credit for ITAL 256 or 257, or for this topic under an ITAL 398 number, may not take this course for credit.

ITAL 308 Italian for Business (3 credits)

Prerequisite: ITAL 240 or 242 or 254 or equivalent with a grade of C or higher. This course is designed to give intermediate-advanced level students a solid foundation in business vocabulary, correspondence, and basic business practices, as well as the cultural concepts necessary to enable them to express themselves in the Italian-speaking business world.

ITAL 310 Survey of Italian Literature I (3 credits)

Prerequisite: ITAL 240 or 242 or 254 or equivalent with a grade of C or higher. This course examines the major authors and trends of Italian literature from its origins to the end of the 16th century.

ITAL 311 Survey of Italian Literature II (3 credits)

Prerequisite: ITAL 240 or 242 or 254 or equivalent with a grade of C or higher. This course examines the major authors and trends of Italian literature from the beginning of the 17th century to the present.

ITAL 351 Dramatic Representations in Italian Cinema and Culture (3 credits)

This course offers students the opportunity to understand contemporary Italian society through the works of filmmakers who examine the cultural, political and working environments of present-day Italy. The films are grouped thematically, covering politics, media, social changes, organized crime, terrorism, the workplace and the new challenges facing the younger generation of Italians. The language of instruction is English, and no prior knowledge of the Italian language is required. Advanced level students — i.e. students placed at the 300 level or higher in Italian — must hand in all their work in Italian.

NOTE: Students who have received credit for this topic under an ITAL 398 or FMST 398 number may not take this course for credit.

ITAL 361 Italy and Its Languages (3 credits)

This course provides an overview of the linguistic situation in present-day Italy, with attention to the structure of the Italian language and its dialects; regional, social, and communicative variations; linguistic minorities in Italy, and linguistic legislation in Italy. The language of instruction is English, and no prior knowledge of the Italian language is required. Advanced level students — i.e. students placed at the 300 level or higher in Italian — must hand in all their work in Italian.

ITAL 365 Italian Civilization: Italy from Dante to Today (3 credits)

Prerequisite: ITAL 240 or 242 with a grade of C or higher. This course aims at familiarizing students with the crucial moments of Italian history and the major issues characterizing Italian culture. The selected topics/artists/authors offer a unique opportunity to analyze and discuss issues related to the historical, political, and socio-cultural evolution of Italy from the Middle Ages to the present day.

NOTE: Students who have received credit for ITAL 365 under a different title or for ITAL 366 cannot take this course for credit.

ITAL 367 Cultural Views of Italy (3 credits)

This course focuses on politics, literature, and the arts in Italy from Dante and the Italian Renaissance to the present. The language of instruction is English, and no prior knowledge of the Italian language is required. Advanced-level students — i.e. students placed at the 300 level or higher in Italian language courses — must submit their work in Italian.

NOTE: Students who have received credit for this topic under an ITAL 298 number may not take this course for credit.

ITAL 398 Selected Topics in Italian (3 credits)**ITAL 399 Selected Topics in Italian** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

ITAL 415 *Dante and the Middle Ages* (3 credits)

Prerequisite: ITAL 301. This course examines a selection of the works of Dante Alighieri and his contribution to the formation of the Italian language, literature and culture. It offers an introduction to Medieval literature and culture (including its historical, social and political context) by analyzing passages from the *Vita Nuova*, the *Convivio*, and the *Divina Commedia*.

NOTE: Students who have received credit for ITAL 416 may not take this course for credit.

ITAL 422 *Petrarch and Boccaccio* (3 credits)

Prerequisite: ITAL 301 or equivalent. This course examines the origin and evolution of the early Italian novella. Petrarch and Boccaccio are studied as forerunners of humanism; emphasis is placed on Petrarch's *Canzoniere* and Boccaccio's *Decameron*.

ITAL 427 *Italian Humanism and the Renaissance* (3 credits)

Prerequisite: ITAL 301 or equivalent. This course deals with the rise of humanism and analyzes the Renaissance as a historical and cultural concept. References are made to the social, historical, and artistic trends in 15th- and early-16th-century Italy. Emphasis is on representative works of Alberti, Valla, Leonardo da Vinci, Pico della Mirandola and Machiavelli.

ITAL 434 *The Epic Tradition in Italy* (3 credits)

Prerequisite: ITAL 301 or equivalent. This course explores the nature and evolution of the chivalresque genre in Italy, mainly within the context of the 15th and 16th centuries, and with special emphasis on Ariosto and Tasso.

ITAL 439 *Romanticism in Italy* (3 credits)

Prerequisite: ITAL 301 or equivalent. This course examines the concept of Romanticism in Italy and its relation to Risorgimento. Emphasis is on representative works of Foscolo, Manzoni, and Leopardi. References are made to the role of leading political figures of the period.

ITAL 446 *Cultural Expressions in Italy from Neo-Realism to the Present* (3 credits)

Prerequisite: ITAL 301 or equivalent. This course examines the debate on Neo-realism and looks at literary and cinematographic expressions. It also deals with the *Neo-avanguardia* movement and questions of gender and post-modernism. Emphasis is on Calvino, Sciascia, Fellini, Antonioni, and Eco. References are also made to the social and political reality of contemporary Italy.

ITAL 450 *Feminist Discourse in Italy* (3 credits)

Prerequisite: ITAL 301 or equivalent. This course studies the question of gender as a concept and traces its presence within the Italian cultural tradition from the Renaissance to the present. Representative works of figures such as Franco, Marinelli, de Fonseca Pimentel, Deledda, Aleramo, and Maraini are studied.

ITAL 452 *The Contemporary Italian Novel* (3 credits)

Prerequisite: ITAL 301. This course offers a survey of the contemporary Italian novel, from the end of the 1980s to the present, while introducing the socio-historical context in which different trends arise and develop. Authors are chosen to provide significant examples of the main trends in Italian fiction writing.

NOTE: Students who have received credit for this topic under an ITAL 498 number may not take this course for credit.

ITAL 461 *History of the Italian Language* (3 credits)

Prerequisite: ITAL 301. This course examines the social, cultural and linguistic changes from the formation of the Italian vernaculars to the present day. This course also studies the most representative texts illustrating different medieval, Renaissance, and modern theories on the Italian language (Dante, Pietro Bembo, Alessandro Manzoni, and Pier Paolo Pasolini, for example).

NOTE: Students who have received credit for ITAL 461 under a different title or for ITAL 462 may not take this course for credit.

ITAL 463 *Language, Politics and Ideology* (3 credits)

Prerequisite: ITAL 301. This course examines the ideological and political appropriations of Italian as it developed into a standard and unified language from Dante to the present. It explores what motivated political powers to promote a specific type of language or a specific canon of Italian authors. Through a series of thematically arranged case studies, students are encouraged to reflect on the importance of language to understand social and cultural changes in Italy. Course topics may include language and cultural identity, language and politics, and language and gender.

ITAL 480 *Tutorial I* (3 credits)

Prerequisite: Permission of the Department. This course consists of guided readings in Italian language and/or literature, and is designed to meet the individual needs of advanced students. Assignments include written and oral criticism of the works studied.

ITAL 481 *Tutorial II* (3 credits)

Prerequisite: Permission of the Department. This course consists of guided readings in Italian language and/or literature, and is designed to meet the individual needs of advanced students. Assignments include written and oral criticism of the works studied.

ITAL 482 *Tutorial III* (3 credits)

Prerequisite: Permission of the Department. This course consists of guided readings in Italian language and/or literature, and is designed to meet the individual needs of advanced students. Assignments include written and oral criticism of the works studied.

ITAL 483 *Tutorial IV* (3 credits)

Prerequisite: Permission of the Department. This course consists of guided readings in Italian language and/or literature, and is designed to meet the individual needs of advanced students. Assignments include written and oral criticism of the works studied.

ITAL 490 Honours Essay Tutorial (3 credits)

Prerequisite: Honours status. This course provides the honours candidate with the opportunity to prepare an extensive research essay, on a topic to be chosen by the candidate with the approval of a supervising member of the faculty of the Italian section.

ITAL 498 Advanced Topics in Italian (3 credits)

ITAL 499 Advanced Topics in Italian (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

Spanish

THE DEPARTMENT RESERVES THE RIGHT TO TRANSFER A STUDENT TO A HIGHER-LEVEL LANGUAGE COURSE IF IT IS DEEMED THAT THE COURSE FOR WHICH THE STUDENT HAS REGISTERED IS NOT APPROPRIATE FOR THE EXTENT OF HIS OR HER KNOWLEDGE OF THE LANGUAGE.

SPAN 200 Introductory Spanish: Intensive Course (6 credits)

This course provides a comprehensive introduction to the Spanish language, completing the fundamental aspects of grammar in one term.

NOTE: Students who have received credit for SPAN 201 or 202 may not take this course for credit.

NOTE: This course covers the same material as SPAN 201 and 202.

SPAN 201 Introductory Spanish I (3 credits)

This course provides an introduction to the basic elements of Spanish for the student with no knowledge of the language.

NOTE: Students who have received credit for SPAN 200 may not take this course for credit.

SPAN 202 Introductory Spanish II (3 credits)

Prerequisite: SPAN 201 or equivalent. The objective of this course is to complete the study of fundamental aspects of Spanish grammar.

NOTE: Students who have received credit for SPAN 200 may not take this course for credit.

SPAN 240 Intermediate Spanish: Intensive Course (6 credits)

Prerequisite: SPAN 200 or 202 or equivalent. This course provides a review of Spanish grammar in a single term and furnishes additional details not dealt with in the introductory courses. Practice is provided through readings, discussions, and composition.

NOTE: Students who have received credit for SPAN 241 or 242 may not take this course for credit.

NOTE: This course covers the same material as SPAN 241 and 242.

SPAN 241 Intermediate Spanish I (3 credits)

Prerequisite: SPAN 200 or 202 or equivalent. This course provides a review of Spanish grammar and deals with additional details not covered in the introductory courses. Practice is provided through short readings, discussions, and composition.

NOTE: Students who have received credit for SPAN 240 may not take this course for credit.

SPAN 242 Intermediate Spanish II (3 credits)

Prerequisite: SPAN 241 or equivalent. This course is a continuation of SPAN 241. It completes the review of the grammar and includes additional details not covered in the introductory courses. Practice is provided through short readings, discussions, and composition.

NOTE: Students who have received credit for SPAN 240 may not take this course for credit.

SPAN 298 Special Topics in Spanish (3 credits)

SPAN 299 Special Topics in Spanish (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

SPAN 301 Grammar and the Process of Writing I (3 credits)

Prerequisite: SPAN 240 or 242 or equivalent with a grade of C or higher. This course offers a practical analysis of the conventions that govern grammar, spelling, punctuation, and syntax in Peninsular and Latin-American Spanish. It also focuses on the means of identifying, analyzing, and using effective stylistic resources in different forms of writing such as summaries, notes, journals, and short stories.

SPAN 302 Grammar and the Process of Writing II (3 credits)

Prerequisite: SPAN 301 or equivalent. This course continues the practical analysis of grammar and focuses on using effective stylistic resources and formal conventions in writing, especially for essays and related texts.

SPAN 303 Critical Reading of Hispanic Texts (3 credits)

Prerequisite: SPAN 301. This course offers a survey of the major rhetorical devices and methodological tools for the critical reading of literary and other texts, and for the production of well-founded and persuasive writing in Spanish. The course covers notions of narratology and poetics, as well as discourse analysis and critical thinking. Activities include close reading of Hispanic texts and practical work in research and documentation, as well as the presentation of well-organized, analytical prose.

SPAN 305 Communicative Strategies and Oral Communication for Non-Native Speakers (3 credits)

Prerequisite: SPAN 240 or 242 or equivalent with a grade of C or higher. This course is offered to *non-native* speakers of Spanish only. Its main goal is for students to improve their oral production in Spanish. This course also encourages improved levels of competence in the other language skills: listening, reading, and to some extent writing.

NOTE: Students who have received credit for this topic under a SPAN 398 number may not take this course for credit.

SPAN 306 Introduction to Translation (3 credits)

Prerequisite: SPAN 240 or 242 or equivalent with a grade of C or higher. This course examines Spanish and English grammar in a comparative context in order to provide a sound basis for translation between the two languages. It also aims to develop lexical and semantic knowledge of the Spanish language through analysis of textual materials. Students translate short texts from a variety of fields such as literature, business, journalism, politics, and science. Translation is primarily from English to Spanish (some reference to French is included).

SPAN 307 Translation Practice (3 credits)

Prerequisite: SPAN 306 or equivalent. This course continues the examination of Spanish and English grammar in a practical context as a basis for translation between the two languages. It also enhances the students' lexical and semantic knowledge of the Spanish language through direct, practical experience in translation. Students translate texts from a variety of fields, with a particular emphasis on business, finance, tourism, journalism, and the arts. Translation is primarily from English to Spanish (some reference to French is included).

SPAN 308 Spanish for Business (3 credits)

Prerequisite: SPAN 240 or 242 or equivalent with a grade of C or higher. This course is designed to give students a solid foundation in business vocabulary and basic business practices, as well as the cultural concepts necessary to enable them to function in the Spanish-speaking business world. Activities may include the elaboration of different types of business documents, oral group activities and simulations, and the development of strategies needed for comprehension through visual and/or aural material.

NOTE: Students registered in an Honours in Spanish, Hispanic Cultures and Literatures program may not take this course for program credit.

SPAN 310 Conquest and Empire: Spanish Literature from the 12th to the 17th Centuries (3 credits)

Prerequisite: SPAN 240 or 242 or equivalent with a grade of C or higher. This course introduces students to medieval and early modern Spanish literature by examining the relationship between cultural manifestations and emergent narratives of Spanish national history. Students are also introduced to literary analysis and its relation to socio-cultural issues through activities that may include small group discussions, close readings, short analytical papers, and essay exams.

SPAN 311 Crisis and Introspection: Spanish Literature from the 18th to the 21st Centuries (3 credits)

Prerequisite: SPAN 240 or 242 or equivalent with a grade of C or higher. This course introduces students to modern Spanish literature and examines the relationship between these cultural manifestations and Spain's difficult transition towards modernity, with special emphasis on the Generation of '98 and its role in the debates that culminated in the Spanish Civil War. Students are also introduced to literary analysis and its relation to socio-cultural issues through activities that may include small group discussions, close readings, short analytical papers, and essay exams.

SPAN 320 Defining Difference in Spanish America: Literature from 1500 to 1880 (3 credits)

Prerequisite: SPAN 240 or 242 or equivalent with a grade of C or higher. This course introduces students to the richly varied texts of colonial Spanish America and the early independence era. It examines how from its very beginnings Spanish-American discourse attempts to distinguish itself from Peninsular traditions throughout the various cultural eras and within its socio-political contexts. Readings include letters, chronicles, poetry, and essays. Activities may include critical reading, oral discussions and presentations, summaries, and brief essays.

SPAN 321 Identity and Independence in Spanish America: Literature from 1880 to the Present (3 credits)

Prerequisite: SPAN 240 or 242 or equivalent with a grade of C or higher. This course introduces students to the literature of the period following independence. It examines how the literature defines Spanish-American identities in urban and rural perspectives, in different genres and genders, throughout the cultural eras of the period, and within its socio-political contexts. Readings include poetry, essays, short stories, and excerpts from novels. Activities may include critical reading, oral discussions and presentations, summaries, and brief essays.

SPAN 362 Cultures of Mexico, the Central American Region, and the Spanish Caribbean (3 credits)

Prerequisite: SPAN 240 or 242 or equivalent with a grade of C or higher. This course introduces students to the cultural manifestations of the nations of these regions within an historical framework. Emphasis is on the interaction between the events that shape the area, the wide variety of cultures that arose there, and the forms of artistic endeavour through which the peoples express themselves. Mexico, Cuba, and Colombia are given special importance; the history and culture of the Dominican Republic, Venezuela, Puerto Rico, and the Central American countries are also highlighted. Activities may include oral discussions and presentations, analysis of written and visual texts, use of relevant Internet resources, summaries, and brief essays.

SPAN 363 Cultures of the Southern Cone and the Andean Region (3 credits)

Prerequisite: SPAN 240 or 242 or equivalent with a grade of C or higher. This course introduces students to the cultural achievements of the nations of the region within an historical framework. Emphasis is on the interaction between the events that shape the area, the wide variety of cultures that arose there, and the forms of artistic endeavour through which the many different

peoples express themselves. Argentina, Peru, and Chile are given special importance; the history and culture of Uruguay, Ecuador, and Bolivia are also highlighted. Activities may include oral discussions and presentations, analysis of written and visual texts, use of relevant Internet resources, summaries, and brief essays.

SPAN 365 *The History of Spanish Culture* (3 credits)

Prerequisite: SPAN 240 or 242 or equivalent with a grade of C or higher. This course examines important linguistic, literary, and artistic developments of Spanish culture as they relate to the invention, consolidation, and critique of a unique Spanish identity. Activities may include oral discussions and presentations, analysis of written and visual texts, use of relevant Internet resources, summaries, and brief essays.

SPAN 371 *Phonetics and Phonology of Spanish* (3 credits)

Prerequisite: SPAN 301 or permission of the Department. Students in this course gain knowledge to describe the sound system of Spanish and to contrast it with English. Practical applications stemming from this course include: (a) gaining awareness and improving one's Spanish pronunciation; (b) learning to efficiently perceive and describe different varieties of Spanish; and (c) learning to identify pronunciation problems of learners of Spanish as a foreign language.

NOTE: Students who have received credit for this topic under a SPAN 398 number may not take this course for credit.

SPAN 398 *Special Topics in Spanish* (3 credits)

SPAN 399 *Special Topics in Spanish* (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

SPAN 406 *From Orality to Literacy in Medieval Spain, 1100-1500* (3 credits)

Prerequisite: SPAN 303, 310. This course examines the ways in which oral-popular discourses are appropriated by the representatives of "official" culture, as well as how emerging institutions fashion their message around a nascent concern with Hispanic identity in works from the late period of Spain's era of Reconquest. Topics of inquiry may include the social and political function of oral poetry, the importance of ritualistic cultural phenomena, the growing importance of vernacular literature, and the processes of canon formation.

SPAN 411 *Freedom and Containment in Spanish Golden Age Prose, 1550-1700* (3 credits)

Prerequisite: SPAN 303, 310. This course considers a selection of narrative texts from the Spanish Golden Age in order to examine the relationship between the reading subject and an emergent official culture. Through close textual analysis and critical discussion of representative works by authors such as Cervantes, Quevedo, and Zayas, students study and discuss literary and extra-literary issues representative of this period. Course topics may include theories of reader reception, the role of censorship, the construction of gender, and the creation of social types and anti-types.

SPAN 412 *Golden Age Drama and Poetry: Theatricality in Renaissance and Baroque Spain, 1500-1690* (3 credits)

Prerequisite: SPAN 303, 310. This course carries out a comparative study of the rhetorical strategies of literary and extra-literary representation in Golden Age Spain, and their role in the creation of an early modern subject of mass visual culture. Through close textual analysis and critical discussions of representative works by Spanish poets and playwrights such as Garcilaso, Lope, Góngora, Quevedo, Tirso, and Calderón, students examine a number of literary and theoretical topics. These may include the performative aspects of poetry, the literary uses of pictorial perspective, and the relationship between subjectivity and theatricality.

SPAN 415 *Towards Modernity and Liberalism in Spain, 1808-1898* (3 credits)

Prerequisite: SPAN 303 or equivalent. This course examines the debates that arose during Spain's problematic transition towards cultural, political, and economic liberalism in the 19th century, from the outbreak of the Independence War against France until the fall of the Empire in the Americas. Content may vary from year to year and may include authors such as Zorrilla, Bécquer, Galdós, and Clarín. Topics may include competing visions of rationalism and Romanticism, the interplay of literary, scientific, and economic discourses, photography and new ways of seeing reality, and the relationship between the rise of the bourgeoisie and the reconceptualization of private space.

NOTE: Students who have received credit for SPAN 416 or 417 may not take this course for credit.

SPAN 418 *Cultural Conflicts and Modernity in Spain, 1898-1939* (3 credits)

Prerequisite: SPAN 303 or equivalent. This course examines the cultural and ideological conflicts that took place in Spain between the fall of the Spanish Empire and the Civil War. Through close readings and critical discussions of works by authors such as Unamuno, Ortega, García Lorca, and Buñuel, students consider topics that may include the ethics of violence in cultural conflict, the relationship between culture and ideology, the role of emotions in the shaping of national identity, and the tension between humanism and technical progress.

NOTE: Students who have received credit for SPAN 419 may not take this course for credit.

SPAN 420 *Dictatorship and Exile in Modern Spain, 1939-1975* (3 credits)

Prerequisite: SPAN 303 or equivalent. This course examines literary and cultural discourses in Spain during Franco's dictatorship. Content may vary from year to year and may focus on the literature produced under the dictatorship or in exile. Through close readings and critical discussions of works by authors such as Bergamín, Erice, Aub, and Matute, students consider topics that may include the impact of censorship on cultural history, cultural hegemony and exile, reactionary ideologies of modernity, and the role of silence and fragmentary discourse against official constructions of the nation.

NOTE: Students who have received credit for SPAN 419 may not take this course for credit.

SPAN 422 *Spain in Transition: 1960 to the Present* (3 credits)

Prerequisite: SPAN 303 or equivalent. This course examines Spanish literature in the context of the country's evolution towards cultural post-modernity, since the final years of Franco's dictatorship until today. Through close readings and critical discussions of works by authors such as Brossa, Goytisolo, Almodóvar, and the *Novísimos* group, students consider topics that may include the intertwining of official history and personal memory, the emergence of pop culture, the destabilization of modern identities, and nationalism at the turn of the century.

SPAN 441 *Romanticism and the Construction of Identity in Spanish America, 1820-1890* (3 credits)

Prerequisite: SPAN 303 or equivalent. This course examines Spanish-American literature and culture of the 19th century in terms of the efforts to define national character through discourses on nature, the peoples, history, and traditions. The relationship of these discourses with Romanticism, the role of the writer, and the image and function of the feminine are particularly examined. Students study representative works by authors such as Heredia, Sarmiento, Gómez de Avellaneda, and Hernández. Students are introduced to the formulation of critical discourse through a series of short essays and oral presentations.

SPAN 442 *Modernism: Modernity and Rebellion, Rupture and Innovation in Spanish-American Letters, 1880-1920* (3 credits)

Prerequisite: SPAN 303 or equivalent. Through the study of representative literary and other cultural texts, as well as the critical debates of the era (such as those concerning industrialization, U.S. hegemony and feminism), this course examines the various phases in the development of a Spanish-American consciousness towards modernity and cultural autonomy. Students study representative works by authors such as Martí, Gutiérrez Nájera, Darió, Lugones, and some women authors of the period. Students are introduced to the formulation of critical discourse by writing a series of short essays and delivering oral presentations.

SPAN 443 *The Spanish-American "Boom" and its Predecessors, 1950-1980* (3 credits)

Prerequisite: SPAN 303 or equivalent. This course examines a selection of Spanish-American novels and essays of the period between approximately 1950 and 1975, known as the *Boom*. Through close textual analysis and a study of critical debates, the course considers literary and extra-literary issues representative of this period, including *Lo real maravilloso* and magical realism as Latin-American specificities, the relationship between history and fiction, and the debate between regionalism and cosmopolitanism. Authors studied may include Carpenter, García Márquez, Puig and Allende.

SPAN 450 *The Short Narrative in Spain and Spanish America* (3 credits)

Prerequisite: SPAN 303 or equivalent. From its beginnings as an independent genre in the 19th century to the most recent minification, this course examines the short story in light of different theories of narratology, specifically as relating to the short narrative. Texts are taken from representative authors from either or both Spain and Spanish America, within their cultural context. Students are introduced to the formulation of critical discourse through a series of short essays and an oral presentation; students also write their own short fiction.

SPAN 451 *Dramatic Representations in Hispanic Cultures* (3 credits)

Prerequisite: SPAN 303 or equivalent. This course introduces students to fundamental concepts in the study of Hispanic drama and film, as well as to wider issues of theatricality and performance. It deals with the cultural and historical relation between literature and the visual arts, and presents some basic tools and techniques of research and criticism as related to Hispanic theatre and cinema. The course may include student representations of scenes from plays studied.

SPAN 453 *From Object to Subject: Women and Discourse in Spain and Spanish America* (3 credits)

Prerequisite: SPAN 303 or equivalent. This course introduces texts from different historical periods from various theoretical perspectives. Particular attention is given to theoretical perspectives pertinent to Spain and Spanish America. The function of gender in Hispanic discourse, representation of women, and strategies of expression in women writers are some of the topics that may be examined.

SPAN 455 *Perspectives on the Teaching of Spanish* (3 credits)

Prerequisite: SPAN 303 previously or concurrently.. This course provides students with basic knowledge of and structured practice in the principal approaches to the teaching of Spanish to speakers of other languages. Topics may include a selection of approaches to the teaching of Spanish, such as task-based learning, communicative methods, process writing, grammar for teachers of Spanish, the use of computer technology and Internet resources for the teaching of Spanish, the development of didactic material, as well as the incorporation of Hispanic cultural material.

NOTE: Students who have received credit for this topic under a SPAN 498 number may not take this course for credit.

SPAN 461 *The History of the Spanish Language* (3 credits)

Prerequisite: SPAN 371 or permission of the Department. This course examines the historical and cultural evolution of the Spanish language. Topics to be considered may include the phonological and morphological development of Vulgar Latin, the development of variants between Peninsular and Spanish-American expression, and the dialogic and conflictive nature of linguistic change. In-class and take-home activities may include the translation of medieval and early modern Spanish texts into their modern equivalents.

SPAN 462 *Introduction to Spanish Linguistics* (3 credits)

Prerequisite: SPAN 303 previously or concurrently. This course provides an introduction to the basic concepts and analytical techniques of linguistics as applied specifically to the Spanish language. It covers the main areas of Hispanic linguistics, including phonetics and phonology, morphology and syntax of the Spanish language. It may also cover topics related to semantics, pragmatics, dialectology, sociolinguistics and second language acquisition of Spanish. Activities include linguistic analysis of the

sounds, words and sentences of Spanish, as well as comparisons to the structure of English and/or French when applicable. This course provides the basis for further study in the field.

NOTE: Students who have received credit for this topic under a SPAN 498 number may not take this course for credit.

SPAN 464 *Current Issues in the Hispanic Cultures: Spanish America* (3 credits)

Prerequisite: SPAN 301; 362 or 363, or equivalent. This course explores current newsworthy events and affairs in the political, social, and cultural spheres of Spanish America as seen through various media sources such as newspapers, magazines, radio and television, and the Internet. It includes a systematic study of techniques of oral expression. As such, activities emphasize oral skills and may include team-based class work and presentations, brief summaries, journal, and oral exams. Format and content vary from year to year.

SPAN 465 *Current Issues in the Hispanic Cultures: Spain* (3 credits)

Prerequisite: SPAN 301, 365. This course explores current newsworthy events and affairs in the political, social, and cultural spheres of Spain as seen through various media sources such as newspapers, magazines, radio and television, and the Internet. It includes a systematic study of techniques of oral expression. As such, activities emphasize oral skills and may include team-based class work and presentations, brief summaries, journal, and oral exams. Format and content vary from year to year.

SPAN 467 *The Avant-Gardes in Spanish America and Spain and their Repercussions in the Arts* (3 credits)

Prerequisite: SPAN 303 or equivalent. Starting from an introduction to major currents of the historical Avant-garde (1920-1940), such as Futurism, Cubism, Dadaism, and Surrealism, the course traces the impact of the avant-gardes throughout 20th-century Hispanic poetry and the visual arts. Students explore particular manifestations of these currents in the art and poetry of Spanish America (*Creacionismo* and *Negrismo*) and Spain (*la Generación del '27*). Emphasis is placed on the role of the artist-poet as engaged actor of radical change in all dimensions of social and political life.

SPAN 469 *Hispanic Poetry and Poetics* (3 credits)

Prerequisite: SPAN 303 or equivalent. This course examines poetic discourse in Hispanic culture. Through close readings and critical discussions of works by Spanish and/or Spanish-American poets, students consider topics that may include the rhetorical and linguistic strategies of poetic discourse, poetry as ideology, poetry and the body, and the relationship between poetry and other written and oral forms of discourse.

SPAN 470 *Spanish-American Testimonio Discourse* (3 credits)

Prerequisite: SPAN 303; 362 or 363; or equivalent. This course offers a comprehensive study of the struggle between subaltern voices and mainstream culture, as manifested in *testimonio* discourse. The study includes an examination of the controversy surrounding *testimonio* with respect to its status as a literary genre and the question of appropriation of marginalized voices. Texts may include journalistic prose, essay, biography, and oral manifestations of subaltern groups. Authors may include Burgos/Menchú, Barnet/Montejo and Davis/Pablo.

SPAN 471 *The Art of Persuasion: the Hispanic Essay* (3 credits)

Prerequisite: SPAN 303 or equivalent. This course examines the genre of essay writing in Spain and/or Spanish America. A concise historical overview traces the development of this genre to the present. The study of different types of rhetorical strategies, discourse, and objectives in essay writing focuses on contemporary texts. Students learn to develop their own skills towards the writing of effective persuasive prose.

SPAN 472 *Discourses of Discovery, Colonization, and Resistance in Spain and Spanish America* (3 credits)

Prerequisite: SPAN 303, 310. This course examines the colonial subject as s/he appears in early modern articulations of the imperial centre and its relation to the colonial periphery, as well as in the emerging centres of Spanish America. Through close textual analysis and critical discussions of representative works by Peninsular and Colonial authors such as Columbus, Las Casas, Sor Juana and el Inca Garcilaso, students investigate topics that may include the rhetorical and legal tropes of discovery and their construction of an abject "other," the historical conditions that inform the chronicles of conquest, and strategies of cultural resistance employed by *criollo* and Amerindian subjects.

SPAN 473 *Literary Translation in Spanish* (3 credits)

Prerequisite: SPAN 303 previously or concurrently; SPAN 306. This course examines the history and principles of literary translation with reference to translation between the Spanish- and English-speaking worlds. Literary translations both from Spanish to English and vice versa are analyzed within a critical context, and students translate essays, short stories, and poetry into both languages. Equal attention is paid to Spanish and English stylistics.

SPAN 474 *Translation for Specific Fields* (3 credits)

Prerequisite: SPAN 303 previously or concurrently; SPAN 306. This course concentrates on the technical and stylistic elements of translation of texts from a variety of fields such as business, journalism, tourism, telecommunications, and international trade. Material to be translated includes actual texts, and activities involve analysis of translation strategies and of terminological challenges pertinent to effective written communication in each domain. Translation is from both Spanish to English and English to Spanish.

SPAN 475 *Translation Issues in Spanish American Culture* (3 credits)

Prerequisite: SPAN 303 previously or concurrently; SPAN 306. The goal of this course is to critically revise the cultural, literary, and aesthetic role of translation in Latin American culture, particularly with regard to its textual production. Through reading

and discussion of theoretical authors such as F. Schleiermacher, J. Ortega y Gasset, L. Venuti, H. K. Bhabha, and W. Mignolo, students analyze representative texts of Latin American culture which practically and aesthetically incorporate different problems and/or strategies of translation in the transcultural context of a globalization process of more than five centuries.

SPAN 480 *Tutorial I* (3 credits)

Prerequisite: Permission of the Department. This course consists of guided readings in Spanish language and/or Hispanic literature, culture, and translation, to meet the individual student's needs.

SPAN 481 *Tutorial II* (3 credits)

Prerequisite: Permission of the Department. This course consists of guided readings in Spanish language and/or Hispanic literature, culture, and translation, to meet the individual student's needs.

SPAN 482 *Tutorial III* (3 credits)

Prerequisite: Permission of the Department. This course consists of guided readings in Spanish language and/or Hispanic literature, culture, and translation, to meet the individual student's needs.

SPAN 483 *Tutorial IV* (3 credits)

Prerequisite: Permission of the Department. This course consists of guided readings in Spanish language and/or Hispanic literature, culture, and translation, to meet the individual student's needs.

SPAN 490 *Honours Project* (3 credits)

Prerequisite: Honours status. This course provides the honours candidate with the opportunity to prepare an extensive research project on a topic to be chosen by the candidate with the approval of a supervising member of the faculty of the Spanish section.

SPAN 498 *Advanced Topics in Spanish* (3 credits)

SPAN 499 *Advanced Topics in Spanish* (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

Linguistics

LING 200 *Introduction to Linguistic Science* (3 credits)

This course provides an introduction to the principles of general linguistics for beginners in the field. There is an emphasis on synchronic linguistic analysis, with a brief examination of historical and comparative linguistics.

LING 222 *Language and Mind: The Chomskyan Program* (3 credits)

This course uses language as a tool to examine the workings of the human mind. It approaches the study of language from the perspective of generative grammar as developed by Noam Chomsky and his collaborators. It deals with patterns of linguistic structure, rather than content or meaning. The goal of this course is to develop an understanding of the field of cognitive science (the study of knowledge and the mind/brain) and determine how linguistics fits in with disciplines like the study of vision, auditory perception and reasoning.

NOTE: Students who have received credit for this topic under a LING 398 number may not take this course for credit.

LING 298 *Selected Topics in Linguistics* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

LING 300 *Sociolinguistics* (3 credits)

This course studies the beliefs, interrelationships, and values of societal groups as reflected in language.

LING 315 *Syntax* (3 credits)

Prerequisite: LING 200 with a grade of C or higher. This course introduces students to syntactic theory in the generative tradition. Topics include structure-building operations, constituency, a variety of movement phenomena, and the relationship between the lexicon and syntactic computation. The focus is on contemporary theoretical frameworks but the course also includes some discussion of how these developed from earlier theories.

LING 322 *Linguistics and Cognitive Science* (3 credits)

Prerequisite: LING 222 or equivalent. This course situates generative linguistics in the cognitive sciences by providing a survey of relevant topics from psychology, artificial intelligence, computer science, ethology, and philosophy.

NOTE: Students who have received credit for this topic under a LING 398 number may not take this course for credit.

LING 330 *Sanskrit* (3 credits)

This course provides an introduction to the fundamentals of Sanskrit grammar. After developing a foundation, students are presented with a selection of short, original texts to read and translate.

LING 335 *Historical Linguistics* (3 credits)

Prerequisite: LING 200 with a grade of C or higher. This course provides a survey of the primary tools and methods of historical linguistics. Change and mechanisms of change at the various levels of the grammar (phonological, morphological, and syntactic) are surveyed. The comparative method, including both subgrouping and reconstruction, is treated in detail.

NOTE: Students who have received credit for LING 420 may not take this course for credit.

LING 336 *Comparative Indo-European Linguistics* (3 credits)

Prerequisite: LING 200 with a grade of C or higher. Through a comparative study of the phonology of the various branches of the Indo-European language family (e.g. Indo-Iranian, Hellenic, Italic, Germanic, Slavic, Baltic), this course familiarizes the student with the techniques used in linguistic reconstruction. Emphasis is given to the development and differentiation of languages through time.

LING 341 *Introduction to Romance Linguistics* (3 credits)

A study of the modern Romance languages, especially French, Italian, and Spanish, and their development from Latin.

LING 353 *Psycholinguistics* (3 credits)

Prerequisite: LING 200 or equivalent; or permission of the Department. This course treats current issues in the experimental evaluation of linguistic theories, presenting both methodological concerns and empirical results. Topics covered include sentence processing, speech perception, lexical access and language development.

NOTE: Students who have received credit for this topic under a LING 398 number may not take this course for credit.

LING 371 *Semantics* (3 credits)

Prerequisite: LING 200 with a grade of C or higher. This course introduces the basic notions required for formal analysis of meaning within a theory of language. The central objective is the development of a system for the representation of the logical structure of natural language. Contemporary works in linguistic semantics are critically examined.

NOTE: Students who have received credit for LING 320 may not take this course for credit.

LING 372 *Descriptive and Instrumental Phonetics* (3 credits)

Description of speech sounds in articulatory terms. Identification and description of sounds that occur outside the Indo-European family of languages. Description of speech sounds as to their acoustic qualities: frequency, amplitude, pitch, stress. Interpretation of sound spectrograms.

LING 373 *Phonology* (3 credits)

Prerequisite: LING 200 with a grade of C or higher. This course examines the fundamentals of distinctive-feature analysis as developed by Jakobson, Chomsky, and Halle. Theoretical concepts and notational techniques are emphasized. Students receive extensive training in data analysis and rule writing.

LING 380 *Morphology* (3 credits)

Prerequisite: LING 373 or equivalent. This course consists of a survey of linguistic morphology, the study of word structure, and the tools used to perform morphological analysis. The course also gives some consideration to the issues relating to a theory of morphology.

NOTE: Students who have received credit for this topic under a LING 398 number may not take this course for credit.

LING 398 *Selected Topics in Linguistics* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

LING 415 *Advanced Syntax* (3 credits)

Prerequisite: LING 315 with a grade of C or higher. This course considers current developments in the field of syntactic theory and their application to phenomena such as control, movement out of islands and binding.

LING 421 *Non-Indo-European Structures* (3 credits)

Prerequisite: LING 315, 373. This course is intended to give the student an in-depth acquaintance with the structure of a language which differs markedly from that of familiar Indo-European languages. The course involves working with a native speaker and/or from textual material.

LING 425 *Language Acquisition and Universal Grammar* (3 credits)

Prerequisite: LING 315, 373. This course presents a survey of theoretical and empirical issues in the study of first language (L1) acquisition by children. Particular attention is paid to the role of Universal Grammar and innateness in explaining L1 acquisition, as well as to the significance of fundamental theoretical notions such as the competence/performance distinction.

LING 435 *Advanced Historical Linguistics* (3 credits)

Prerequisite: LING 335. This course concentrates on the nature of language change, with an investigation into the relationship between theories of linguistic structure and theories of change. The theoretical foundations of contemporary methods in the study of language change are the central focus.

NOTE: Students who have received credit for LING 420 or for this topic under a LING 398 number may not take this course for credit.

LING 436 Advanced Indo-European Studies (3 credits)

Prerequisite: LING 336 or equivalent. Detailed study of the synchronic and diachronic grammars of one or more Indo-European dialects essential to the reconstruction of the proto-language. Extensive readings are undertaken in both original texts and in scholarly contributions to their elucidation. Emphasis is placed on current issues and research in the field.

LING 437 Problems in Indo-European Comparative Grammar (3 credits)

Prerequisite: LING 336 or equivalent. This course explores one or more areas of Indo-European comparative grammar of particular interest in current research. Extensive reading in the scholarly literature is undertaken with emphasis on the principles by which hypotheses in historical linguistics can be framed and the criteria for testing such hypotheses.

LING 446 Comparative Grammar of Greek and Latin (3 credits)

Prerequisite: LING 336 or CLAS 383 or 391. A study of the similarities and differences in the phonology and morphology of Ancient Greek and Latin. Some attention is also given to issues of syntax and the lexicon.

LING 447 Mycenaean Greek (3 credits)

Prerequisite: LING 336 or CLAS 383. Dating from the 14th to the 12th century BCE, Mycenaean — the language of the Linear B tablets — is the earliest form of Greek attested. In this course, selected documents will be read, both in transliteration and in the Mycenaean syllabary, with attention both to linguistic and to cultural issues.

LING 456 Homeric Greek (3 credits)

Prerequisite: LING 336 or CLAS 383. An examination of the language of Homer, an artificial mixture of dialectal and diachronic variants, a *Kunstsprache*. Against the background of a study of the comparative and historical grammar of Greek and its development from Proto-Indo-European, the focus is on diachronic aspects of Homeric grammar and diction. Readings are principally from Books One and Three of the *Iliad*.

LING 457 Archaic Latin and the Italic Dialects (3 credits)

Prerequisite: LING 336 or CLAS 391. A study of inscriptions in archaic Latin and the ancient Italic dialects Oscan and Umbrian. Examination of the main features of phonology, morphology, syntax and the lexicon which distinguish Osco-Umbrian from Latin, with reference to their development from Proto-Indo-European.

LING 461 Hittite (3 credits)

Prerequisite: LING 336 or equivalent. The fundamentals of Hittite grammar are presented through the extensive reading of texts, both in transliteration and cuneiform. Considerable attention is given to problems of comparative grammar.

LING 471 Advanced Semantics (3 credits)

Prerequisite: LING 371 with a grade of C or higher. This course explores advanced topics in the relationship between syntactic form and linguistic meaning. The course concentrates on formal analysis of linguistic meaning in the tradition of Model Theoretic Semantics. Students are required to read original journal articles in semantics as well as other source material that cover current areas of active research.

NOTE: Students who have received credit for this topic under a LING 498 number may not take this course for credit.

LING 473 Advanced Phonology (3 credits)

Prerequisite: LING 373 with a grade of C or higher. This course treats current issues in the theory of phonology, such as syllable structure, stress computation, vowel harmony and tonology. Critical readings from the current theoretical literature form the basis for discussion and study.

LING 475 History of Linguistics (3 credits)

Prerequisite: LING 315, 336, 373. This course examines the history of linguistics, with a particular focus on the structuralist predecessors of contemporary linguistic theorists. Both North American and European schools of thought are considered. Extensive reading of fundamental texts is required.

LING 477 Syntax-Semantics Interface (3 credits)

Prerequisite: LING 315, 371 with a grade of C or higher. This course discusses the interaction between syntactic structure and semantic interpretation. The course focuses both on identifying those aspects of structure and interpretation which are related (and on the mechanisms that mediate between the two) and on identifying the areas in which mismatches between structure and interpretation are found (and on possible accounts of these mismatches).

NOTE: Students who have received credit for this topic under a LING 429 number may not take this course for credit.

LING 490 Honours Tutorial (3 credits)

Prerequisite: Honours status. This course provides students with the opportunity for advanced research in linguistics under the direct supervision of a faculty member. Students normally prepare a research paper on a topic chosen by the student and with the approval of the supervisor.

NOTE: Students may take this course only once for credit.

LING 495 *Tutorial* (3 credits)

Prerequisite: Permission of the Department. This course provides students with the opportunity to study a topic of individual interest under the guidance of a faculty member.

NOTE: Students may take this course twice for credit provided the subject matter is different.

LING 498 *Advanced Topics in Linguistics* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

NON-PROGRAM COURSES:

Hebrew

THE DEPARTMENT RESERVES THE RIGHT TO TRANSFER A STUDENT TO A HIGHER-LEVEL LANGUAGE COURSE IF IT IS DEEMED THAT THE COURSE FOR WHICH THE STUDENT HAS REGISTERED IS NOT APPROPRIATE FOR THE EXTENT OF HIS OR HER KNOWLEDGE OF THE LANGUAGE.

HEBR 210 *Introductory Course in Hebrew* (6 credits)

A beginners' course in Hebrew, with readings of classical and modern texts.

NOTE: Students who have taken Hebrew at the Cegep level, or whose schooling has been conducted in Hebrew, will not be admitted to this course.

HEBR 241 *Intermediate Hebrew I* (3 credits)

Prerequisite: HEBR 210 or permission of the Department. This course includes a comprehensive review of Hebrew grammar and syntax and deals with additional details not covered in the introductory course. Practice is provided through compositions and readings of classical and modern Hebrew texts.

NOTE: Students who have received credit for HEBR 250 may not take this course for credit.

HEBR 242 *Intermediate Hebrew II* (3 credits)

Prerequisite: HEBR 241 or permission of the Department. This course continues the comprehensive review of Hebrew grammar and syntax, and deals with additional details not covered in the introductory course. Practice is provided through compositions and readings of classical and modern Hebrew texts.

NOTE: Students who have received credit for HEBR 250 may not take this course for credit.

HEBR 310 *Topics in Hebrew Literature* (3 credits)

Topics for this course will vary; possibilities may include modern Hebrew literature, masterpieces and genres in Hebrew literature, and others. This course is taught in English.

NOTE: Please see the Undergraduate Class Schedule for details.

Modern Languages

The following courses give instruction in languages and cultures not included in any of the Department's programs.

MGRK 290 *Modern Greek* (6 credits)

This course provides an introduction to the basic elements of modern Greek for the student with no knowledge of the language.

NOTE: Students who have received credit for this topic under an MODL 399 number may not take this course for credit.

MGRK 398 *Special Topics in Modern Greek* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

MIRI 290 *Modern Irish* (6 credits)

This course provides an introduction to the basic elements of modern Irish for the student with no knowledge of the language.

NOTE: Students who have received credit for this topic under an MODL 399 number may not take this course for credit.

MIRI 398 *Special Topics in Modern Irish* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

MODL 298 *Special Topics in Modern Languages* (3 credits)

MODL 299 *Special Topics in Modern Languages* (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

MODL 398 *Special Topics in Modern Languages* (3 credits)

MODL 399 *Special Topics in Modern Languages* (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

MODL 498 ***Advanced Topics in Modern Languages*** (3 credits)

MODL 499 ***Advanced Topics in Modern Languages*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

MRUS 290 ***Russian*** (6 credits)

This course provides an introduction to the basic elements of Russian for the student with no knowledge of the language.

NOTE: Students who have received credit for RUSS 330 may not take this course for credit.

MRUS 398 ***Special Topics in Russian*** (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

COMMUNICATION STUDIES

Section 31.070

Faculty

Chair

MONIKA KIN GAGNON, PhD *Simon Fraser University*; Professor

Distinguished Professors Emeriti

MAURICE CHARLAND, PhD *University of Iowa*
LORNA ROTH, PhD *Concordia University*; Provost's Distinction

Professors

CHARLES ACLAND, PhD *University of Illinois at Urbana-Champaign*
STELLA CHIA, PhD *University of Wisconsin-Madison*
MIA CONSALVO, PhD *University of Iowa*
YASMIN JIWANI, PhD *Simon Fraser University*
BRIAN LEWIS, PhD *University of Iowa*
ELIZABETH MILLER, MFA *Rensselaer Polytechnic Institute*
KIM SAWCHUK, PhD *York University*
TIMOTHY SCHWAB, MFA *Concordia University*
MATTHEW SOAR, PhD *University of Massachusetts Amherst*
PETER C. VAN WYCK, PhD *McGill University*

Associate Professors

OWEN CHAPMAN, PhD *Concordia University*
TAGNY DUFF, MFA PhD *Concordia University*
SANDRA GABRIELE, PhD *Concordia University*
KRISTA LYNES, PhD *University of California, Santa Cruz*
FENWICK MCKELVEY, PhD *Ryerson University/York University*
ALESSANDRA RENZI, PhD *University of Toronto*
JEREMY STOLOW, PhD *York University*

Assistant Professors

ARSELI DOKUMACI, PhD *Aberystwyth University*
STEFANIE DUGUAY, PhD *Queensland University of Technology*

Lecturer

RAZAN ALSALAH, MFA *Temple University*

For the complete list of faculty members, please consult the Department website.

Location

Loyola Campus

Communication Studies and Journalism Building, Room: CJ 3.230
514-848-2424, ext. 5055

Department Objectives

The Department of Communication Studies takes a broad approach to the study of media and communication. Its undergraduate programs provide students with the analytical, critical, and creative skills necessary in a communication- and information-rich world.

Facilities

The Department provides the necessary equipment and facilities to accommodate students in laboratory courses. These include production studios, Mac labs, field production equipment for video and film (H.D. and 16mm), editing suites for video and film, digital sound facilities (production and post-production), and intermedia laboratories. The Learning Centre provides resources for supporting media production and studies as well as computers for program students to use. The media gallery is also housed in the Learning Centre.

Department Admission Requirements

The Department of Communication Studies has distinct admission procedures for each of its programs, in addition to the normal admission process of Concordia University. The Department is prepared to receive applications as early as January. Interested candidates should obtain information about admission requirements by visiting the Department's website at concordia.ca/artsci/coms.

Graduate Work in Communication Studies

The Department offers a one-year Communication Studies Graduate Diploma for students who have completed their undergraduate degree in another field and who desire a concentrated introduction to Communication Studies. It offers an MA in Media Studies for those with an undergraduate degree in Communication Studies or a cognate field. It also offers a PhD in Communication Studies for those with a graduate degree in Communication Studies or a cognate field. For details, please refer to the School of Graduate Studies Calendar or contact the Department.

Programs

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

The Department offers three programs of study.

1. *BA Specialization in Communication Studies:* This program consists of 60 Communication Studies credits with the remaining elective credits drawn from outside the Department. It provides students with training in a variety of media and an in-depth understanding of communicative processes and of the social, cultural, persuasive, and aesthetic aspects of media and communication.
2. *BA Major in Communication Studies:* This program consists of 42 credits in Communication Studies with the remaining elective credits drawn from outside the Department. It provides students with training in a variety of media and an understanding of communicative processes and of the social, cultural, persuasive, and aesthetic aspects of media and communication.
3. *BA Major in Communication and Cultural Studies:* This program consists of 42 credits in Communication Studies with the remaining elective credits drawn from outside the Department. It offers a strong theoretical and critical understanding of communicative processes and of the social, cultural, persuasive, and aesthetic aspects of media and communication. It does not offer media production.

Elective credits are understood as courses taken in other departments or Faculties of the University. Credits in Communication Studies or in the Mel Hoppenheim School of Cinema may not be used in lieu of electives.

200-level courses are normally taken in first year, 300-level courses in second year, 400-level courses in third year.

Students are required to complete the appropriate entrance profile for entry into the program (see §31.002 – Programs and Admission Requirements – Profiles).

60 BA Specialization in Communication Studies

- 18 COMS 205³, 220³, 240³, 274³, 276³, 284³
6 Chosen from COMS 305³, 310³, 352³, 357³, 367³, 368³, 369³, 372³, 373³

6-18 Chosen from the list of Practicum Courses

- 15-27 Chosen from the list of Studies Courses at the 300 or 400 level, with at least nine credits at the 400 level
3 Chosen from the lists of Studies Courses or Practicum Courses at the 400 level

NOTE: Students may not take more than one Practicum course in any one term at the 300 or 400 level.

42 BA Major in Communication Studies

- 18 COMS 205³, 220³, 240³, 274³, 276³, 284³
6 Chosen from COMS 305³, 310³, 352³, 357³, 367³, 368³, 369³, 372³, 373³

6-12 Chosen from the list of Practicum Courses

- 3-9 Chosen from the list of Studies Courses at the 300 or 400 level, with at least three credits at the 400 level
3 Chosen from the lists of Studies Courses or Practicum Courses at the 400 level

NOTE: Students may not take more than one Practicum course in any one term at the 300 or 400 level.

42 BA Major in Communication and Cultural Studies

Stage I

- 12 COMS 205³, 220³, 225³, 240³

Stage II

- 3 COMS 325³

- 6 Chosen from COMS 305³, 310³, 352³, 357³, 367³, 368³, 369³, 372³, 373³

Stage III

- 3 COMS 425³

- 18 Chosen from the list of Studies Courses at the 300 or 400 level, with at least nine credits at the 400 level

Practicum Courses

Practicum courses in the Department focus on the development of creative media practices within the context of Communication Studies research based in the humanities and social sciences. These courses include weekly lectures, readings, critical analysis, workshops, seminars, screenings, and presentations. First-year courses include an average of three hours of creative laboratories per week. Second- and third-year courses include an average of eight hours of creative labs and/or fieldwork per week.

COMS 274	Communication Media: Intermedia I (3 credits)
COMS 276	Communication Media: Sound I (3 credits)
COMS 284	Communication Media: Moving Images I (3 credits)
COMS 374	Communication Media: Intermedia II (6 credits)
COMS 376	Communication Media: Sound II (6 credits)
COMS 384	Communication Media: Moving Images II (6 credits)
COMS 393	Communication Media: Special Topics (3 credits)
COMS 475	Communication Media: Intermedia III (3 credits)
COMS 477	Communication Media: Sound III (3 credits)
COMS 484	Communication Media: Moving Images III (3 credits)
COMS 491	Communication Media: Portfolio (3 credits)
COMS 493	Communication Media: Advanced Topics (3 credits)

Studies Courses

Studies courses in the Department offer theoretical and critical understandings of social, cultural, formal, and other aspects of human communication and media. These courses may include weekly lectures, readings, critical analyses, seminars, screenings, and presentations.

COMS 205	Effective Communication Skills (3 credits)
COMS 220	History of Communication and Media (3 credits)
COMS 225	Media Institutions and Policies (3 credits)
COMS 240	Communication Theory (3 credits)
COMS 301	Selected Topics in National Cinemas (3 credits)
COMS 304	Selected Topics in Film Studies (3 credits)
COMS 305	Media Criticism (3 credits)
COMS 307	Scriptwriting for Media (3 credits)
COMS 308	Selected Topics in Video (3 credits)
COMS 309	Studies in Documentary (3 credits)
COMS 310	Media Genres (3 credits)
COMS 319	Media Literacy (3 credits)
COMS 324	Communication Analysis of Environment (3 credits)
COMS 325	Approaches to Communication Research (3 credits)
COMS 333	Games, Media and Culture (3 credits)
COMS 352	Media Policy in Canada (3 credits)
COMS 354	Youth and Media (3 credits)
COMS 355	Media and New Technology (3 credits)
COMS 357	Media and Critical Theory (3 credits)
COMS 360	Mass Media (3 credits)
COMS 361	Propaganda (3 credits)
COMS 362	Psychology of Communication (3 credits)
COMS 365	History of Sound Recording (3 credits)
COMS 367	Media and Cultural Context (3 credits)
COMS 368	Media and Gender (3 credits)
COMS 369	Visual Communication and Culture (3 credits)
COMS 370	Advertising and the Consumer Culture (3 credits)
COMS 371	Public Relations: Principles and Problems (3 credits)
COMS 372	Theories of Public Discourse (3 credits)
COMS 373	Topics in Media and Cultural History (3 credits)
COMS 394	Communication Studies Apprenticeship I (3 credits)
COMS 395	Communication Studies Apprenticeship II (3 credits)
COMS 398	Selected Topics in Communication Studies (3 credits)
COMS 399	Selected Topics in Communication Studies (6 credits)
COMS 407	Advanced Scriptwriting for Media (3 credits)
COMS 410	Acoustic Communication and Design (3 credits)
COMS 411	Sexuality and Public Discourse (3 credits)

COMS 412	Discourses of Dissent (3 credits)
COMS 413	Cultures of Production (3 credits)
COMS 414	Production Administration (3 credits)
COMS 415	Advanced Topics in the Photographic Image (3 credits)
COMS 416	Advanced Media Criticism (3 credits)
COMS 418	Cultures of Globalization (3 credits)
COMS 419	Communications and Indigenous Peoples (3 credits)
COMS 420	Reception Studies (3 credits)
COMS 421	Communicative Performances and Interventions (3 credits)
COMS 422	Perspectives on the Information Society (3 credits)
COMS 423	Media Art and Aesthetics (3 credits)
COMS 424	Alternative Media (3 credits)
COMS 425	Advanced Seminar in Cultural Studies (3 credits)
COMS 426	Television Studies (3 credits)
COMS 427	Social Media Platforms and Policy (3 credits)
COMS 434	Advanced Topics in Film Studies (3 credits)
COMS 435	Advanced Topics in Documentary (3 credits)
COMS 437	Media Forecast (3 credits)
COMS 453	Communication Ethics (3 credits)
COMS 455	Food, Media and Culture (3 credits)
COMS 456	News, Media and Power (3 credits)
COMS 460	Political Communication (3 credits)
COMS 461	Organizational Communication (3 credits)
COMS 462	Communication, Culture and Popular Art (3 credits)
COMS 463	Semiotics (3 credits)
COMS 464	Race, Ethnicity and Media (3 credits)
COMS 465	Rhetoric and Communication (3 credits)
COMS 468	Communications, Development and Colonialism (3 credits)
COMS 472	Communication Technologies and Gender (3 credits)
COMS 473	International Communication (3 credits)
COMS 496	Directed Study I (3 credits)
COMS 497	Directed Study II (3 credits)
COMS 498	Advanced Topics in Communication Studies (3 credits)
COMS 499	Advanced Topics in Communication Studies (6 credits)

Courses

N.B.:

- (1) 300-level courses, unless otherwise indicated, are open to students who have successfully completed 24 university credits or who have received permission from the Department.
- (2) 400-level courses, unless otherwise indicated, are open to students who have successfully completed 48 university credits or who have received permission from the Department.

COMS 205 **Effective Communication Skills** (3 credits)

Prerequisite: Registration in a Communication Studies program. This course introduces students to a range of foundational communication skills including public speaking, scholarly writing, group work, interpersonal and group communication, and library research.

COMS 220 **History of Communication and Media** (3 credits)

Prerequisite: Registration in a Communication Studies program. This course examines communication and media from a comparative and historical perspective. Topics include the transition from orality to literacy, the print revolution, the rise of imaging technologies, and the emergence of modern publics, nations, and global media systems. Assignments introduce methods of historical research.

COMS 225 **Media Institutions and Policies** (3 credits)

Prerequisite: Registration in Communication and Cultural Studies Major. This course introduces students to the analysis of the institutional, political, and economic forces that have shaped the development of media during the 20th century. Attention is given to the ownership structures, corporate practices, and state policy interventions affecting media institutions in both the public and private sectors. A particular focus is given to the interrelations between Cultural, Multicultural, and Communication Policy interventions.
NOTE: Students who have received credit for COMS 326 may not take this course for credit.

COMS 240 **Communication Theory** (3 credits)

Prerequisite: Registration in a Communication Studies program. Through lectures, discussions, and selected readings from the works of key theoreticians, this course introduces students to major approaches to the understanding of the process of communication.

COMS 274 *Communication Media: Intermedia I* (3 credits)

Prerequisite: Registration in a Major or Specialization in Communication Studies. This course provides a theoretical and applied introduction to intermedia art and media practices such as remediation, design, animation, interactivity, installation, and performance. General emphasis on creative process, and proof-of-concept media creations, rather than "finished" media productions.

NOTE: Students who have received credit for COMS 256 may not take this course for credit.

COMS 276 *Communication Media: Sound I* (3 credits)

Prerequisite: Registration in the Major or Specialization in Communication Studies. This course introduces students to acoustic, analog, and digital components of audio systems. Students explore the communicational and aesthetic characteristics of sound. Through practical exercises students learn how to structure sound into imaginative aural forms across various media.

NOTE: Students who have received credit for COMS 278 may not take this course for credit.

COMS 284 *Communication Media: Moving Images I* (3 credits)

Prerequisite: Registration in the Major or Specialization in Communication Studies. This course provides a foundation in the creative, critical, and technical aspects of film and digital video production, including an introduction to non-linear editing software. Through collaborative assignments, lectures, discussions and readings, students explore the distinct language of each medium and develop video production skills through teamwork.

NOTE: Students who have received credit for COMS 280 and 282 may not take this course for credit.

COMS 298 *Selected Topics in Communication Studies* (3 credits)

COMS 299 *Selected Topics in Communication Studies* (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

COMS 301 *Selected Topics in National Cinemas* (3 credits)

Prerequisite: See N.B. number (1). This course focuses on selected national cinemas. The analytic perspective of the course varies but may encompass such issues as cultural contexts; aesthetic conventions; economic and policy constraints; and the history of canons and their renewals. Specific topics for this course are stated in the Undergraduate Class Schedule.

NOTE: Students who have received credit for this topic under a COMS 303 number may not take this course for credit.

COMS 304 *Selected Topics in Film Studies* (3 credits)

Prerequisite: See N.B. number (1). The topic of this course varies but may include such issues as film theories; the political economy of cinema; the analysis of particular periods in film history; the analysis of the films of particular directors and/or producers; film policies, or the relations between film, video, and television. Specific topics for this course are stated in the Undergraduate Class Schedule.

NOTE: Students who have received credit for this topic under a COMS 302 number may not take this course for credit.

Communication Studies students may take no more than six credits from the Mel Hoppenheim School of Cinema in the Faculty of Fine Arts.

COMS 305 *Media Criticism* (3 credits)

Prerequisite: See N.B. number (1). Through lectures, discussions, readings, and critical analyses, this course offers students insight into the major schools and practices of media criticism. The course explores the relationships between formal, aesthetic, representational, and sensory elements of media texts and discourses.

NOTE: Students who have received credit for COMS 210 may not take this course for credit.

COMS 307 *Scriptwriting for Media* (3 credits)

Prerequisite: See N.B. number (1); registration in a Major or Specialization in Communication Studies; submission of a sample of creative writing by June 30 and subsequent approval by the instructor. This course is designed to provide knowledge of and practice in the forms and formats of scripts for media. Topics include the anatomy of a script, the relation between audio and visual elements, and the specificity of particular narrative and non-narrative genres. Emphasis is placed upon formal structures, such as story construction and plot development, character and dialogue, tension, conflict, resolution, and harmony.

NOTE: Students who have received credit for COMS 305 or 330 may not take this course for credit.

COMS 308 *Selected Topics in Video* (3 credits)

Prerequisite: See N.B. number (1). This course investigates a variety of video practices from the 1960s to present. These practices range from video as a political tool to video art and installation. Students gain an understanding of the critical and creative uses of video as a tool for communication and change.

COMS 309 *Studies in Documentary* (3 credits)

Prerequisite: See N.B. number (1). This course offers a survey of documentary genres in various media. Topics include the characteristic styles and forms of documentary, the function of documentary, and its relationship to truth and knowledge. The course consists of lectures, screenings, readings, critique, and discussion.

NOTE: Students who have received credit for COMS 306 and 331 may not take this course for credit.

COMS 310 *Media Genres* (3 credits)

Prerequisite: See N.B. number (1). This course presents the concept of genre as a framework for the study of media. Topics may include the history of development of genre theory, the distinctive fictive and non-fictive genres of particular media, and the analysis of emergent or hybrid genres.

COMS 319 *Media Literacy* (3 credits)

Prerequisite: See N.B. number (1). This course focuses on the critical evaluation of media including the examination of audiences, contents, and producers. The possible literacies may include media effects, digital media, news and popular media. Students closely examine the main dimensions of media literacy including access, analysis, creation, reflection, and action.

NOTE: Students who have received credit for this topic under a COMS 398 number may not take this course for credit.

COMS 324 *Communication Analysis of Environment* (3 credits)

Prerequisite: See N.B. number (1). This course analyzes communicational aspects of various sites such as museums, galleries, exhibitions, countrysides, landscapes, city streets, highways, department stores, and churches. These analyses are conducted from perspectives such as film locations work, interpretive writing, cultural studies, and soundscape research. Students take part in individual and group analyses of Montreal locations. Lectures, tutorials, and workshops.

COMS 325 *Approaches to Communication Research* (3 credits)

Prerequisite: Registration in Communication and Cultural Studies Major; COMS 225. This course introduces students to the logics of inquiry of the major research approaches used within Communication and Cultural Studies. It familiarizes students with the formation of research questions, the choice of appropriate methodological tools, and the interpretation and reporting of research findings. There is a particular focus on qualitative approaches to field research and discourse and textual analysis.

COMS 333 *Games, Media and Culture* (3 credits)

Prerequisite: See N.B. number (1). This course takes a critical approach to understanding the role of games as media and cultural objects. Students explore how to make sense of games, both as scholars and as players. The course offers ample opportunities for students to play, discuss, and experiment with games themselves, as well as with media about games.

NOTE: Students who have received credit for this topic under a COMS 298 or 398 number may not take this course for credit.

COMS 352 *Media Policy in Canada* (3 credits)

Prerequisite: See N.B. number (1). This course acquaints the student with the historical development of media policy in Canada. It examines the government regulation of media as well as the strategies that have been put in place to foster and guide the development of media and cultural industries. It also considers the present state of broadcasting, telecommunications, and Internet policies in Canada, focusing on current problems and exploring alternative solutions.

COMS 354 *Youth and Media* (3 credits)

Prerequisite: See N.B. number (1). This course explores the forms of communication that have developed between media and youth, including children and adolescents. Topical areas include future policies and planning in the light of developmental needs, ethical parameters, and experiments in creative empowerment.

COMS 355 *Media and New Technology* (3 credits)

Prerequisite: See N.B. number (1). This course examines the applications of computers in the field of communications from conceptual, theoretical, and practical perspectives. Analog and digital representation, transmission, storage, and processing of visual and aural information are discussed.

COMS 357 *Media and Critical Theory* (3 credits)

Prerequisite: See N.B. number (1). This course focuses on key authors and readings in critical theory, including the work of the Frankfurt School, British Cultural Studies, structuralism, post-structuralism, and contemporary continental philosophy. A central concern is to understand the nature of power in the modern media environment.

COMS 360 *Mass Media* (3 credits)

The course examines the nature and forms of mass media, its social sources and uses, audiences, and effects. Issues such as media ownership and access, government and self-regulation, technological implications, ethics and accountability may be discussed.

COMS 361 *Propaganda* (3 credits)

Prerequisite: See N.B. number (1). This course offers a critical understanding of the concept of propaganda and analyzes its historical development and contemporary impact on people's lives. It also explores its various manifestations in society, politics, and culture and the methods of identifying its different forms.

COMS 362 *Psychology of Communication* (3 credits)

Prerequisite: See N.B. number (1). The objectives of the course are to provide the learner with: 1) an overview of psychological processes active in the communicative act; 2) the opportunity to explore a single media area in depth, either independently or in a small group. Through a variety of formats, topic areas such as the following are explored: perception and information processing, language development, areas of para-psychology related to communication, influences on attitude/behaviour, verbal/non-verbal codes, and meaning.

COMS 365 *History of Sound Recording* (3 credits)

Prerequisite: See N.B. number (1). This course traces the technological development of sound recording and establishes the historical context and the social and economic conditions in which this development has occurred. The evolution of studio recording practices, the structure of the music industry and its global operations, changes in the production and consumption of music, and changes in the role of music as a form of cultural communication are examined. Attention is also given to sound recording practices in cinema, radio, television and digital media.

COMS 367 *Media and Cultural Context* (3 credits)

Prerequisite: See N.B. number (1). This course examines the contested notions of culture and diversity as they relate to interpersonal and mediated communication. It focuses on ways in which different cultural communities critique and access a range of cultural forms, on issues and challenges of cross-cultural communications, and on media representational practices, challenges, and problematics.

COMS 368 *Media and Gender* (3 credits)

Prerequisite: See N.B. number (1). This course investigates how sex and gender are represented in and by the media. The course examines sexuality, sexism, and theories of gender through a critical examination of contemporary media topics.

COMS 369 *Visual Communication and Culture* (3 credits)

Prerequisite: See N.B. number (1). This course introduces the basic principles of visual forms of communication, and considers the relationship of visual and verbal components within media messages. It also presents various modes of visual communication, considers their place within cultural understandings of representation, and examines the place of the visual within contemporary culture.

COMS 370 *Advertising and the Consumer Culture* (3 credits)

Prerequisite: See N.B. number (1). This course critically examines the place of advertising in contemporary society. Topics may include the analysis of communication strategies, the construction of desire, the significance of advertising to the production and circulation of commodities, and the role of advertising and consumption in the construction of social identity.

NOTE: Students who have received credit for COMS 470 may not take this course for credit.

COMS 371 *Public Relations: Principles and Problems* (3 credits)

Prerequisite: See N.B. number (1). This course considers the principles and responsibilities of public relations, and critically examines specific problems and the role of media choices and practices in effecting solutions.

NOTE: Students who have received credit for COMS 471 may not take this course for credit.

COMS 372 *Theories of Public Discourse* (3 credits)

Prerequisite: See N.B. number (1). This course presents a variety of theoretical frameworks that inform the analysis of public communication. Emphasis is placed on cultural, political, and ideological interpretations. Concepts presented are drawn from a number of traditions including rhetoric, hermeneutics, post-structuralism, psychoanalysis, semiotics, and deconstruction.

COMS 373 *Topics in Media and Cultural History* (3 credits)

Prerequisite: See N.B. number (1). This course offers an in-depth examination of specific periods or issues in media and cultural history. Selected topics focus on the development of media forms or cultural practices, as well as their social and political consequences. Historiographic research methods and theories are addressed.

COMS 374 *Communication Media: Intermedia II* (6 credits)

Prerequisite: COMS 274; permission of the Department. This course provides further theoretical and applied exploration of intermedia art and media practices such as remediation, design, animation, interactivity, installation, and performance. General emphasis on creative process, and proof-of-concept media creations, rather than "finished" media productions.

NOTE: Students who have received credit for this topic under a COMS 399 number may not take this course for credit.

COMS 376 *Communication Media: Sound II* (6 credits)

Prerequisite: COMS 276; permission of the Department. This course explores acoustic communication, focusing on audio production techniques associated with various media, including radio, film, video, television, music recording, and intermedia. Students develop technical skills in sound creation and a critical awareness of the social and historical contexts of sound production and reception.

NOTE: Students who have received credit for COMS 378 may not take this course for credit.

COMS 384 *Communication Media: Moving Images II* (6 credits)

Prerequisite: COMS 284; permission of the Department. This course explores aesthetic, critical, and technical issues of moving images through the development of artistic voice, concept, and audience. Students explore visual and aural strategies through collaborative projects and hone skills in camera, lighting, sound and editing.

NOTE: Students who have received credit for COMS 385 or 387 may not take this course for credit.

COMS 393 *Communication Media: Special Topics* (3 credits)

Prerequisite: COMS 274, 276 or 284; submission of a portfolio and project proposal to instructor and permission of the Department. This course involves the development and creation of specialized projects in selected media genres and forms. Emphasis is

placed upon conception, design, and execution of media works. Choice of media and types of forms and genres vary from year to year. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.
NOTE: Students who have received credit for this topic under COMS 379 or 380 may not take this course for credit.

COMS 394 *Communication Studies Apprenticeship I* (3 credits)

Prerequisite: See N.B. number (1); registration in a Communication Studies program; permission of the Department. With approval from the BA program director, students are given the opportunity to work in the communications industry under the co-supervision of a faculty member and a media professional. Students may be accepted for an open apprenticeship position offered to the Department, or they may formulate a study proposal on their own initiative. In order to receive credit, such an apprenticeship proposal must be approved by the BA program director.

NOTE: Students who have received credit for COMS 494 may not take this course for credit.

COMS 395 *Communication Studies Apprenticeship II* (3 credits)

Prerequisite: See N.B. number (1); registration in a Communication Studies program; permission of the Department.

NOTE: Students who have received credit for COMS 394 may register for COMS 395.

NOTE: Students who have received credit for COMS 495 may not take this course for credit.

COMS 398 *Selected Topics in Communication Studies* (3 credits)

COMS 399 *Selected Topics in Communication Studies* (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

COMS 407 *Advanced Scriptwriting for Media* (3 credits)

Prerequisite: See N.B. number (2); COMS 307; submission of a sample of creative writing and subsequent approval by the instructor. This course provides an in-depth approach to writing for specific media. Emphasis is placed upon structure, storytelling, research, and the interplay of character and action. Different paradigms for both fiction and non-fiction are considered.

NOTE: Students who have received credit for COMS 305 or 330 may not take this course for credit.

COMS 410 *Acoustic Communication and Design* (3 credits)

Prerequisite: See N.B. number (2). This course investigates contemporary theories of acoustic communication and design, such as Attali's concept of noise, Schaeffer's theory of the sound object, Schafer's concept of soundscape, Chion's cinema for the ear, and Augoyard's repertoire of sound effects. Students engage in critical analysis of selected sound texts from various media.

COMS 411 *Sexuality and Public Discourse* (3 credits)

Prerequisite: See N.B. number (2). This course analyzes and explores the ways sexuality circulates in and as public discourses. Through a variety of conceptual formations and critical conceptualizations of "the public" and "sexuality," this course analyzes conceptually and critically how sexuality and the notion of the public are mutually constitutive. The seminar is interdisciplinary and draws upon works in feminist studies, queer theory, political philosophy, history, cultural studies, and communication theory.

COMS 412 *Discourses of Dissent* (3 credits)

Prerequisite: See N.B. number (2). This course examines the forms and tactics of public discourses directed toward social change. Forms of public discourse that may be considered include speech, images, audiovisual works, as well as web-based sites or forms of communication. Emphasis is placed upon political protest, conflict and controversy, and mobilization. Themes explored include the development of speaking positions, the use of unconventional tactics, and the appropriation or rejection of received values.

COMS 413 *Cultures of Production* (3 credits)

Prerequisite: See N.B. number (2). Drawing on a range of recent field studies exploring the creative workplace (e.g. television production, the fashion industry, ad agencies, graphic design companies, the music business), this course frames commercial cultural production as a site of active agency, negotiation, and constraint through readings, discussion, and the design and execution of field research projects.

COMS 414 *Production Administration* (3 credits)

Prerequisite: See N.B. number (2). This course focuses on the language, skills, and strategies necessary for producing media projects and events. Administration, organization, permits and permissions, fundraising, liability and contracts, team-building, distribution and writing are just a few of the areas that are examined as students learn the skills necessary to be a producer.

COMS 415 *Advanced Topics in the Photographic Image* (3 credits)

Prerequisite: See N.B. number (2). This course explores the themes and concerns associated with particular photographic practices. Through class discussion, visual materials, readings, and writing projects, students develop a critical understanding of the history, language, and aesthetics of the photographic image.

COMS 416 *Advanced Media Criticism* (3 credits)

Prerequisite: See N.B. number (2). This course explores the assumptions, methodologies, and vocabularies implicit in important schools of popular and academic media criticism across multiple media forms.

COMS 418 *Cultures of Globalization* (3 credits)

Prerequisite: See N.B. number (2). This course examines the significance of communication technologies to the process of globalization, which has increased and accelerated the movement of people and commodities across the world. The resulting transnational networks of cultural, economic, political, and social linkages and alliances are considered, as is the role of media in engendering new forms of community and identity.

COMS 419 *Communications and Indigenous Peoples* (3 credits)

Prerequisite: See N.B. number (2). Focusing on Canadian First Peoples territories in the North and South, as well as selected circumpolar regions, such as parts of Australia and other areas of the world inhabited by indigenous peoples, this course examines from a global perspective the historical, theoretical, and cross-cultural content and contexts of aboriginal media financing, audience research, product development, distribution issues, and policy formation. Broadcasting, print, and digital media case studies and materials are central components.

COMS 420 *Reception Studies* (3 credits)

Prerequisite: See N.B. number (2). This course examines recent theory and research trends in the area of media reception studies and audience agency. Topics may include discursive, institutional, observational, and ethnographic approaches through readings, discussion, and the design and execution of field research projects.

COMS 421 *Communicative Performances and Interventions* (3 credits)

Prerequisite: See N.B. number (2). This course examines how media can be used in order to intervene in social and cultural issues. Emphasis is placed upon the performative character of interventions: they occur at a particular time and in a particular place, they are addressed to and seek to move particular audiences. Topics may include the history of performance strategies, the social and political character of aesthetic interventions, and the forms of such performances in relation to various media of communication.

COMS 422 *Perspectives on the Information Society* (3 credits)

Prerequisite: See N.B. number (2). This course critically examines the political, social, and ethical dimensions of the information society within Canada and throughout the world. The development of the information society is placed in a socio-historical context. The significance of information and communication technologies is considered and the role of global information and communication policies is examined.

COMS 423 *Media Art and Aesthetics* (3 credits)

Prerequisite: See N.B. number (2). This course examines the aesthetic principles pertinent to the analysis and creation of works within communication media. Topics may include the field of perception, the role of cognition, the elements of composition, and the interplay of form and meaning. Both the static and dynamic aspects of visual and aural elements are considered.

COMS 424 *Alternative Media* (3 credits)

Prerequisite: See N.B. number (2). This course examines various alternatives to mainstream media. These alternatives may include community radio and video, independent film, the Internet, and other emergent cultural forms such as the pastiche and parody of "culture jamming." The concepts of mainstream and alternative are explored and the relationship between alternative media and social practices is considered.

COMS 425 *Advanced Seminar in Cultural Studies* (3 credits)

Prerequisite: Registration in the Communication and Cultural Studies Major; see N.B. number (2). This course offers an intense examination of a prominent contemporary debate and/or issue in cultural studies. Students work toward the completion of a major research assignment.

COMS 426 *Television Studies* (3 credits)

Prerequisite: See N.B. number (2). This course examines recent research focusing on television. Topics may include technological and industrial changes, audience activity, new genres, and representational conventions.

COMS 427 *Social Media Platforms and Policy* (3 credits)

Prerequisite: See N.B. number (2). This course critically examines the cultures, economics and affordances of social media platforms. The development of social media platforms is also discussed in order to understand how global flows of technology and culture converge. This course also examines platform policy and governance.

COMS 434 *Advanced Topics in Film Studies* (3 credits)

Prerequisite: See N.B. number (2). This course provides an in-depth study of a selected area of film studies. Specific topics for this course are stated in the Undergraduate Class Schedule.

COMS 435 *Advanced Topics in Documentary* (3 credits)

Prerequisite: See N.B. number (2). This course provides an in-depth study of selected film, video, sound and interactive documentary genres. Specific topics for this course are stated in the Undergraduate Class Schedule.

COMS 437 *Media Forecast* (3 credits)

Prerequisite: See N.B. number (2). This course examines trends in film, sound, television, and other media for future applications. The course includes theory of media effects. Representatives from industry and government are invited to discuss future trends in media utilization. The course demands a theoretical and practical model for original or novel use of a medium or media mix.

COMS 453 *Communication Ethics* (3 credits)

Prerequisite: See N.B. number (2). This course allows students to confront issues of creative responsibility and ethical dilemmas in media practice. Emphasis is placed upon the relationship between production and theory at the level of ethical responsibility. Specific issues include ethical theories as applied to media, communication and information; the relationship of human values and technologies of information reproduction; the possibilities of critical media practice; identification of challenges emerging from experience in Communication Studies.

NOTE: Students who have received credit for JOUR 316 or 317 may not take this course for credit.

COMS 455 *Food, Media and Culture* (3 credits)

Prerequisite: See N.B. number (2). Food and water are essential to life and inform the articulation of identities, values, and cultures. This course addresses the critical role communication plays in framing contemporary food issues. Students develop skills to critically analyze the narratives and metaphors that scholars, artists, communication experts, educators, and activists draw on when addressing food, water and environmental concerns.

NOTE: Students who have received credit for this topic under a COMS 435 number may not take this course for credit.

COMS 456 *News, Media and Power* (3 credits)

Prerequisite: See N.B. number (2). The course explores how news is produced within systems of media and power, and examines the technologies and conventions that govern its production and dissemination. The class may explore in greater detail a particular facet of, or problem in, the news media system, its production or dissemination.

COMS 460 *Political Communication* (3 credits)

Prerequisite: See N.B. number (2). The relationships between forms of communication and political structures and processes are examined. Topics include freedom of expression, the role of communication in mediating conflict, the place of deliberation and debate in democracy, political campaigns and advertising, and the relationship between styles of communication and models of governance.

COMS 461 *Organizational Communication* (3 credits)

Prerequisite: See N.B. number (2). This course considers major approaches to organizational communication in relation to shifting patterns of power, inequality, and technological change. Topics include communication networks, organization culture, bureaucracy, systematically distorted communication, gendered communication, the impact of new communication technologies, and patterns of organizational dominance and resistance. Case studies of particular organizations are examined.

COMS 462 *Communication, Culture, and Popular Art* (3 credits)

Prerequisite: See N.B. number (2). This course offers an advanced examination of popular culture. With attention to such phenomena as hit films and television shows, stars, fans, and pop art, this course focuses on the formation of hierarchies of value in cultural forms. This course examines how some cultural products come to be celebrated while others are dismissed. It also considers social and political consequences of divisions of high and low culture.

COMS 463 *Semiotics* (3 credits)

Prerequisite: See N.B. number (2). This course provides a detailed introduction to the semiotics of communication. The course considers the formal characteristics of signs and codes and examines how signs or texts produce meaning. Central to this course is the notion that sign-systems are fundamental to the production of knowledge and ideology. The course proceeds through lectures, an analytical reading of assigned texts, and student discussion and presentations.

COMS 464 *Race, Ethnicity and Media* (3 credits)

Prerequisite: See N.B. number (2). This course addresses practical and theoretical issues of race and ethnicity that have become focal points for current debates in public cultural expression and media studies. The following themes are discussed: cultural/racial difference and its implications for media studies; the (mis)representation of multicultural and multiracial minorities in mainstream and alternative media; questions of access to arts and other cultural funding sources; implications of employment equity legislation in light of media budget cuts; and cross-cultural awareness programs vs. anti-racist training for media professionals. Theoretical readings which frame issues of cultural and racial representation are an integral part of this course.

COMS 465 *Rhetoric and Communication* (3 credits)

Prerequisite: See N.B. number (2). This course focuses upon communication as persuasive or as producing identification. Emphasis is placed upon the role of communication in civic affairs. Classical and contemporary approaches to rhetorical theory and criticism are examined.

COMS 468 *Communications, Development and Colonialism* (3 credits)

Prerequisite: See N.B. number (2). This course discusses the role media can play in indigenous and international development. The concept of development communications is examined in the context of debates within neo-colonial and post-colonial theories.

COMS 472 *Communication Technologies and Gender* (3 credits)

Prerequisite: See N.B. number (2). Feminist theories of communication technologies are used to critique the impact and meanings of these technologies in various spheres of cultural activity. Topics include the mass media, technological mediations in organizations and institutions, and the re-articulation of domestic and public spaces, such as the Internet and the World Wide Web. Special

attention is paid to these electronic and digital technologies — or new media — and the communicational and representational possibilities they enable or foreclose. The class is conducted as an intensive seminar. Completion of a prior course in women's studies or gender studies at the university level is recommended.

COMS 473 *International Communication* (3 credits)

Prerequisite: See N.B. number (2). This course explores historical and current parameters of international communications within the context of current global shifts in power/knowledge relations. Discussion topics are selected from among the following: key development and neo-colonial theories, cultural/media imperialism, globalization, the UN infrastructure, the Right to Communicate debates, national sovereignty issues, international broadcasting, cross-cultural audience reception research and effects theories, telediplomacy, the World Wide Web and the Internet, women as an international constituency group, and others.

COMS 475 *Communication Media: Intermedia III* (3 credits)

Prerequisite: COMS 374; permission of the Department. This advanced course in intermedia theory and practice involves further engagement with analog and digital media, such as remediation, design, animation, interactivity, installation, and performance. The course emphasizes concept, process, and polish in the development of a portfolio-level work.

NOTE: Students who have received credit for COMS 474 or 490 may not take this course for credit.

COMS 477 *Communication Media: Sound III* (3 credits)

Prerequisite: COMS 376; permission of the Department. This advanced course involves analysis and creation of substantial audio projects such as sound documentaries, song cycles, soundscape projects, multi-layered soundtracks, and audio installations. Emphasis is placed on creative portfolio development and public presentation.

NOTE: Students who have received credit for COMS 476 or 478 may not take this course for credit.

COMS 484 *Communication Media: Moving Images III* (3 credits)

Prerequisite: COMS 384; permission of the Department. This course emphasizes the development of portfolio-quality creative work in moving images with a focus on cinematography, sound design, editing, distribution, aesthetic and critical aspects of digital moving image production and the professional field.

NOTE: Students who have received credit for COMS 485 or 487 may not take this course for credit

COMS 491 *Communication Media: Portfolio* (3 credits)

Prerequisite: Successful completion of any second-year production course; permission of the Department. This advanced production course offers a sustained opportunity to develop one or more portfolio-quality media productions, either individually or in groups. Other topics may include CV design, grant-writing, and professional development.

COMS 493 *Communication Media: Advanced Topics* (3 credits)

Prerequisite: COMS 374, 376 or 385; submission of portfolio and project proposal to instructor and permission of the Department. This course involves the development and creation of specialized projects in selected media genres and forms. Emphasis is placed upon conception, design, and execution of media works. Choice of media and types of forms and genres vary from year to year. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

No more than six credits may be taken in Apprenticeships or Directed Study. The appropriate Cluster for Apprenticeship and Directed Study courses is determined by the course content as outlined in the student proposal.

COMS 496 *Directed Study I* (3 credits)

Prerequisite: Registration in a Communication Studies program. Towards the end of their second year, students enrolled in a Communication Studies program who have demonstrated scholarly and creative ability may be selected for major research or production in a communications area of special interest. During the third year, individually or in teams, the project is realized in close collaboration with faculty directors.

NOTE: Students who have received credit for COMS 495 may not take this course for credit.

COMS 497 *Directed Study II* (3 credits)

Prerequisite: Registration in a Communication Studies program.

NOTE: Students who have received credit for COMS 496 may register for COMS 497.

COMS 498 *Advanced Topics in Communication Studies* (3 credits)

COMS 499 *Advanced Topics in Communication Studies* (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

ECONOMICS

Section 31.080

Faculty

Chair

JORGEN HANSEN, PhD *University of Gothenburg; Professor*

Associate Chair

DAMBA LKHAGVASUREN, PhD *University of Rochester; Associate Professor*

Distinguished Professor Emeritus

GORDON FISHER, PhD *University of Southampton*

Professors

EFFROSYNI DIAMANTOUDI, PhD *McGill University*

PAUL GOMME, PhD *University of Western Ontario*

IAN IRVINE, PhD *University of Western Ontario*

TATYANA KORESHKOVA, PhD *University of Western Ontario*

JAMES McINTOSH, PhD *London School of Economics*

Associate Professors

PROSPER DOVONON, PhD *Université de Montréal*

GREG LEBLANC, PhD *Queen's University*

MING LI, PhD *University of Wisconsin-Madison*

DIPJYOTI MAJUMDAR, PhD *Indian Statistical Institute*

DAN OTCHERE, PhD *McGill University*

SZILVIA PÁPAI, PhD *California Institute of Technology*

CHRISTIAN SIGOUIN, PhD *University of British Columbia*

HUAN XIE, PhD *University of Pittsburgh*

Assistant Professors

JAN VICTOR DEE, PhD *University of Toronto*

XINTONG HAN, PhD *Toulouse School of Economics*

HEEJEONG KIM, PhD *Ohio State University*

PANOS MARGARIS, PhD *University of Manchester*

AXEL HIROKI WATANABE, PhD *Washington University in St. Louis*

Senior Lecturers

MOSHE LANDER, MA *University of Alberta*

CAROL CHUI-HA LAU, PhD *University of Calgary*

IVAN TCHINKOV, PhD *Simon Fraser University*

Lecturer

ANTHONY NOCE, PhD *Concordia University*

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus

Hall Building, Room: H 1155

514-848-2424, ext. 3900

Department Objectives

The Department aims to educate students in economics, both at the graduate and undergraduate level, and to contribute to the advancement of the discipline through research and teaching. Economists study the production, distribution, and consumption of goods and services – essential knowledge for today's business people and policy makers. Blending both theory and practical applications, the Department of Economics serves students preparing for related specialized professions (honours, specialization, co-operative) as well as those interested in a generalized understanding of the discipline (major, minor programs).

Programs

Students are responsible for satisfying their particular degree requirements.

Students seeking admission to the honours program may apply either for direct entry on the University application form or, once in the program, to the departmental honours advisor normally following the completion of 30 credits.

The superscript indicates credit value.

NOTE: *Calculus I is a prerequisite for many Economics courses. Students who have not taken MATH 209 or equivalent must take it as an elective within their first 15 credits.*

BA DEGREE PROGRAMS IN ECONOMICS

60 BA Honours in Economics

Stage I

6 * ECON 201³, 203³

6 ** ECON 221³, 222³

Stage II

6 ECON 301³, 302³

6 ECON 303³, 304³

6 ECON 325³, 326³

3 ECON 324³

3 Chosen from ECON 318³, 319³

Stage III

6 ECON 401³, 403³

6 ECON 421³, 422³

12 400-level ECON elective credits

60 BA Specialization in Economics

Stage I

6 *ECON 201³, 203³

6 **ECON 221³, 222³

Stage II

6 ECON 301³, 302³

6 ECON 303³, 304³

3 Chosen from ECON 318³, 319³

6 ECON 324³, 325³

3 Chosen from 300-level ECON elective credits; GEOG 380³; COMP 218³

Stage III

3 ECON 421³ or 423³

21 400-level ECON elective credits

42 BA Major in Economics

Stage I

6 *ECON 201³, 203³

6 **ECON 221³, 222³

Stage II

6 ECON 301³, 302³

6 ECON 303³, 304³

3 Chosen from ECON 318³, 319³, 324³

3 Chosen from 300-level ECON elective credits; GEOG 380³; COMP 218³

Stage III

12 400-level ECON credits

30 Minor in Economics

Stage I

6 *ECON 201³, 203³

Stage II

6 ECON 318³, 319³

6 200- or 300-level ECON elective credits

Stage III

12 Chosen from 300- or 400-level ECON elective credits; GEOG 380³; COMP 218³

*Students exempted from ECON 201 and/or 203 are required to replace these courses with ECON elective credits or GEOG 380³ or COMP 218³.

**Any equivalent six credits satisfy this component of the program.

24 Minor in Analytical Economics

NOTE: MATH 203 or 209; MAST 221; or equivalent are prerequisites for this program. ECON 201, 203, and 325 are waived as prerequisites only for those courses which are taken as part of the minor.

- 3 Chosen from ECON 222³; GEOG 380³; COMP 218³
- 12 ECON 301³, 302³, 303³, 304³
- 3 Chosen from ECON 318³, 319³
- 3 ECON 324³
- 3 Chosen from ECON 421³, 423³

NOTE: This program is intended for students in Science, Mathematics/Statistics, or Engineering.

BCOMM DEGREE PROGRAMS IN ECONOMICS

- BComm Major in Economics
(See §61.60)

BUSINESS STUDIES

- Certificate in Business Studies
 - Minor in Business Studies
(See §61.140)
-

Economics Co-operative Program

Director

CHRISTIAN SIGOUIN, Associate Professor

The Economics co-operative program is offered to students who are enrolled in the BA Honours or Specialization in Economics. Students interested in applying for the Economics co-op should refer to §24 where a full description of the admission requirements is provided.

Academic content is identical to that of the regular program, but study terms are interspersed with three work terms.

Students are supervised personally and must meet the requirements specified by the Faculty of Arts and Science and the Institute for Co-operative Education in order to continue their studies in the co-op format.

Liaison between the student, the employers, and the Institute for Co-operative Education is provided by the Economics co-op committee, which includes the student's advisors.

Please refer to §24 for additional information.

Economics C.Edge (Career Edge) Option

The Economics C.Edge option is offered through the Institute for Co-operative Education. Like the co-operative program, C.Edge allows students to gain practical experience through work terms related to their field of study. It is limited to one or two work terms, normally in the summer. Students interested in applying for the C.Edge option should refer to §24 where a full description is provided.

Courses

ECON 200 **Economics and Social Issues** (3 credits)

This course is intended to introduce students to economics. This course demonstrates how economics can be used to examine various social issues such as immigration, crime, addiction and pollution. The course also examines the data and policies associated with each issue as well as the insights and empirical findings offered by economics. Students are introduced to the economic way of thinking when examining each issue. No previous knowledge of economic concepts, graphs or mathematics is required.

NOTE: Students who have received credit for ECON 302 or 304, or for this topic under an ECON 298 number, may not take this course for credit.

ECON 201 **Introduction to Microeconomics** (3 credits)

Introduction to the functioning of the market system; concepts of supply and demand, the role of prices in resource allocation; production decisions by firms. Analysis of differences between competition and monopoly, and the implications for economic efficiency; theories of labour markets and wage determination.

ECON 203 **Introduction to Macroeconomics** (3 credits)

An introductory analysis of aggregate economic activity. The focus is on the principles of determination of the level of employment, national income, real output, inflation, and international balance of payments. The course also analyzes the principles which govern trade relations among countries. These topics are integrated by a discussion of government monetary and fiscal policies to stabilize economic activity.

ECON 221 **Statistical Methods I** (3 credits)

Prerequisite: Cegep Mathematics 311 or MATH 201 or 206. This course is an introduction to the statistical procedures commonly employed by economists. Topics may include probability and probability distributions, discrete and continuous random variables,

descriptive statistics, sampling distributions, statistical estimation, confidence intervals and hypothesis testing.

NOTE: Students who have received credit for BIOL 322, COMM 215, DESC 244, ENGR 371, GEOG 362, MAST 221 or 333,

PSYC 315 or 316, SOCI 212 and 213, or STAT 249 or 250 may not take this course for credit.

NOTE: Students in the Major in Economics are required to take ECON 221. Credits earned from SOCI 212 or INTE 296 will not be counted towards the degree.

ECON 222 *Statistical Methods II* (3 credits)

Prerequisite: ECON 221; MATH 203 or 209; or equivalent. This course is a continuation of ECON 221 and is an introduction to the classical linear regression model, with an emphasis on the model's assumptions and the properties and interpretation of the estimates derived from it. Consideration is also given to violations of the model's assumptions, the effects on the estimates and steps to remedy these violations. Topics may include model specification, heteroscedasticity, multicollinearity and indicator variables. Students are also introduced to the acquisition and preparation of appropriate datasets.

NOTE: Students who have received credit for MAST 333, PSYC 316 or STAT 250, or for any combination of MAST 221 and 333, PSYC 315 and 316, or STAT 249 and 250, may not take this course for credit.

ECON 251 *Economic History Prior to the Industrial Revolution* (3 credits)

This course is an introduction to the economic development of the Western world prior to the Industrial Revolution. The emphasis is on economic factors in history: evolution of economic systems, economic growth, development and regression within the context of changing institutional constraints. Interconnections among economic, social, and intellectual change are highlighted.

NOTE: Students who have received credit for ECON 250 may not take this course for credit.

ECON 252 *Economic History After the Industrial Revolution* (3 credits)

This course is an introduction to the main economic trends in the era of sustained growth and development which accelerated with the Industrial Revolution and continues to the present. The emphasis is on Europe with some coverage of North America and the colonial/ developing world.

NOTE: Students who have received credit for ECON 250 may not take this course for credit.

ECON 298 *Selected Topics in Economics* (3 credits)

ECON 299 *Selected Topics in Economics* (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

ECON 301 *Intermediate Microeconomic Theory I* (3 credits)

Prerequisite: ECON 201, 203; MATH 203 or 209 or equivalent. Theory and measurement of demand, theory of consumer behaviour, production, theory of the firm, and cost and revenue analysis.

ECON 302 *Intermediate Microeconomic Theory II* (3 credits)

Prerequisite: ECON 301. Market structures (perfect competition, monopoly, oligopoly), industrial concentration, factor markets, income distribution, economic efficiency, general equilibrium, welfare economics.

ECON 303 *Intermediate Macroeconomic Theory I* (3 credits)

Prerequisite: ECON 201, 203; MATH 203 or 209 or equivalent. The course introduces basic aggregative models to explore different theories on the determination of national income, interest rates and exchange rates. Topics covered include the definitions and measurements of indicators of economic activity; the components of aggregate supply and aggregate demand; the supply and demand for money; and the dynamics of national debt and deficit. The role of macroeconomic policy, such as fiscal and monetary policy, is also examined.

ECON 304 *Intermediate Macroeconomic Theory II* (3 credits)

Prerequisite: ECON 303. This course builds on the concepts developed in ECON 303 by introducing additional features to the basic models, such as the formation of expectations and attributes of the labour market, and then using these models to explore different theories concerning the determination and the evolution of major aggregate variables, economic growth and business cycles. The role of macroeconomic policy, with an emphasis on Canada, is also examined.

ECON 311 *Economic Development* (3 credits)

Prerequisite: ECON 201, 203. The course investigates comparative economic development, with special attention to problems of capital formation, population growth, quality of labour force, and social and cultural attitudes towards economic modernization. Theories of economic development are evaluated in the context of the realities of historical patterns and the varying degrees of ability to achieve modernization.

ECON 318 *Canadian Economic Policy and Institutions* (3 credits)

Prerequisite: ECON 201, 203. This course focuses on economic policies and institutions related to contemporary issues in the domestic economy. It is guided by the application of economic principles to such issues as regional disparities, income distribution and inequality, intra-provincial trade, social security policies, welfare programs, foreign ownership and control, competition policy, government regulation of business, unemployment, inflation, and environmental policy.

NOTE: Students who have received credit for ECON 316 may not take this course for credit.

ECON 319 *International Economic Policy and Institutions* (3 credits)

Prerequisite: ECON 201, 203. This course focuses on economic policies and institutions related to issues such as protectionism, regionalism, and globalization. Selected topics in exchange rate and currency convertibility, liberalization of economic systems, and international economic development are also covered.

NOTE: Students who have received credit for ECON 317 may not take this course for credit.

ECON 324 *Economic Data Analysis* (3 credits)

Prerequisite: ECON 201, 203, 222 or equivalent. This course introduces students to the techniques of data retrieval, manipulation and analysis with particular emphasis placed on using a variety of national and international databases, database management, and spreadsheet and statistical software packages.

NOTE: Students who have received credit for ECON 323 may not take this course for credit.

ECON 325 *Mathematics for Economists I* (3 credits)

Prerequisite: ECON 201, 203; MATH 203 or 209 or equivalent. This course provides students with the fundamental mathematical tools necessary for economic studies and helps them develop a set of problem-solving and analytical skills. Topics may include linear models and basic matrix algebra, univariate calculus, exponential and logarithmic functions, comparative static analysis, and constrained and unconstrained optimization problems.

NOTE: Students who have received credit for MAST 234 or MATH 251 may not take this course for credit.

ECON 326 *Mathematics for Economists II* (3 credits)

Prerequisite: ECON 325. This course covers mathematical tools necessary for advanced economic studies and provides students with a set of problem-solving and analytical skills. Topics may include implicit function theorem, multivariate calculus, constrained optimization with inequality constraints, envelope theorem and dynamic analysis.

NOTE: Students who have received credit for MAST 235, MATH 252 or 283 may not take this course for credit.

ECON 330 *Economics in Practice* (3 credits)

Prerequisite: ECON 201, 203. This course relies on concepts used in managerial economics, applied microeconomics, public economics, applied statistics, and industrial organization to examine how economists approach and think about real-world problems. The course is organized around the setting that students are employees of a consulting firm hired to provide timely advice on pressing issues.

NOTE: Students who have received credit for this topic under an ECON 398 number may not take this course for credit.

ECON 331 *Money and Banking* (3 credits)

Prerequisite: ECON 201, 203. Overview of a monetary economy: nature, forms, and the economic role of money. Monetary standards: markets, prices, and the value of money; the payments system; financial markets. Determinants of size and distribution of wealth portfolios. Supply of money: measure, composition, and size determination. The economic role of commercial banks and non-bank financial intermediaries. Central banking and monetary policy. The international monetary system. (Topics covered within the Canadian banking institutional framework.)

ECON 332 *Introductory Financial Economics I* (3 credits)

Prerequisite: ECON 201, 203; MATH 203 or 209 or equivalent. This course is an introduction to investment issues. Topics may include consumption-savings decision under uncertainty, the allocation of savings from a portfolio perspective, securities markets, the historical record on risk and return, asset-pricing models, fixed income securities and behavioural finance.

NOTE: Students who have received credit for COMM 308 or for this topic under an ECON 398 number may not take this course for credit.

ECON 333 *Introductory Financial Economics II* (3 credits)

Prerequisite: ECON 332. This course is the continuation of ECON 332 with an emphasis on derivative products and risk management. Topics may include the role of derivatives in financial markets, binomial model of stock prices, Black-Scholes pricing model, risk-neutral pricing, exotic derivatives, regulatory environment for financial markets, Basel Accords, models of risk and recent financial crisis.

NOTE: Students who have received credit for this topic under an ECON 398 number may not take this course for credit.

ECON 337 *Public Sector Economics* (3 credits)

Prerequisite: ECON 201, 203. This course examines government fiscal activity within the context of a market economy. Rationale for public intervention is reviewed in terms of market failure and the consequent inefficiency in resource allocation. An overview of the spending and taxation policies in the Quebec-Canada context is presented. This is followed by an examination of topics such as public-spending growth, public goods, externalities and collective decision making.

NOTE: Students who have received credit for ECON 335 or 336 may not take this course for credit.

ECON 340 *Population Economics* (3 credits)

Prerequisite: ECON 201, 203. This is a course in the field of applied economics, with a focus on population economics. Topics may include the demographic transition, economic growth, population aging (and its impact on financial markets), health care and pension financing, labour migration, microfinance, environmental consequences, and optimal policy approaches.

NOTE: Students who have received credit for this topic under an ECON 398 number may not take this course for credit.

ECON 350 *Economic History of Canada* (3 credits)

Prerequisite: ECON 201, 203. This course introduces the student to Canadian economic development focusing on the period after Confederation. The course treats the subject in a thematic, rather than a chronological, fashion and places emphasis on conflicting schools of thought and their reflection in government policies.

NOTE: Students who have received credit for ECON 351 may not take this course for credit.

ECON 361 *Industrial Organization* (3 credits)

Prerequisite: ECON 201, 203. This course develops the relationship of the firm to various forms of market structure. The course focuses on the objectives of the corporation, corporate interdependence, and the government control of industry. A study of policy matters centres on anti-trust and corporate regulation, with respect to both the legislative and economic aspects.

ECON 362 *Economics of the Firm* (3 credits)

Prerequisite: ECON 201, 222. This course stresses the application of economic principles and methodologies to the decision-making process of the firm, with an emphasis on the role of risk and uncertainty. Topics include decision-making criteria, demand analysis and estimation, cost analysis and estimation, pricing theory under various market structures, applied topics in pricing, and the impact of government on the firm. This course is primarily of interest to Commerce students, but is open to others as well.

ECON 377 *The Asia-Pacific Rim Economies* (3 credits)

Prerequisite: ECON 201, 203. This course analyzes the economic growth, industrial policies and crisis experiences of selected Asian economies. It provides an analysis of the policies and factors that have contributed to the economic transformation of these economies since World War II. It examines how these economies were affected by the Asian financial crisis in 1997 and their economic performance since then. The economic challenges that these economies are likely to face in the future may also be explored.

ECON 379 *The Irish Economy and the European Union* (3 credits)

Prerequisite: ECON 201, 203. This course has a dual objective: to examine economic developments and recent growth in the Irish economy, and to examine the structure and importance of Ireland's participation in the European Union in a global and European context. Particular issues addressed are: high growth in developed economies, migration, taxation policy, integration and trade, currency areas and capital mobility.

NOTE: Students who have received credit for this topic under an ECON 398 number may not take this course for credit.

ECON 381 *Introduction to Labour Economics* (3 credits)

Prerequisite: ECON 201, 203. The general objective of this course is to acquaint the student with various theoretical and empirical issues in the area of labour economics. Particular emphasis is placed upon the relation between theoretical frameworks and their empirical counterparts in Canada. Topics include the theory of wage determination, the effects of minimum wages, human capital theory, the economics of discrimination, and the economics of the household.

ECON 382 *Industrial Relations I* (3 credits)

Prerequisite: ECON 201, 203. A study of the general and practical problems that arise in the labour field, such as collective bargaining, the legal framework for the settlement of industrial disputes, the weapons of industrial conflict; the labour movement; contemporary labour issues, such as automation, cost-push inflation, and structural employment.

ECON 386 *Economics of Human Resources* (3 credits)

Prerequisite: ECON 201, 203. A study of recent contributions by economists to the understanding of and solution to social problems which society currently faces in the areas of crime, health, education, and welfare. In addition, specific federal and provincial governmental policies in these areas are analyzed with the standard tools of economics.

ECON 391 *Economics of the Environment* (3 credits)

Prerequisite: ECON 201, 203. The subject of this course is environmental quality. It proceeds through an analysis of the relationships among the natural environment, economics, and institutions. The objective is to depict the problem of environmental quality as an economic problem whose solution demands major changes in economic, political, and legal institutions. Attention is also given to policies of collective environmental actions in which the effective management of common property resources is discussed. The course concludes with a discussion of some broader issues, such as the consistency of improved environmental quality with continued economic and population growth.

ECON 392 *Urban Economics* (3 credits)

Prerequisite: ECON 201, 203. This course focuses on the basic issues of economic growth and stagnation, urban land use, the problems of the urban public economy, and special urban problems, such as transportation, congestion, poverty, housing, urban renewal, and zoning.

ECON 393 *Economics of Uncertainty* (3 credits)

Prerequisite: ECON 201, 203, 222. This course focuses on the basic rules governing the application of statistical concepts such as means, variances, covariances, to the economic aspects of the problem of uncertainty. Applications in micro-economic analysis include economic aspects of insurance as well as issues in finance such as portfolio selection, efficient markets, and the capital-asset pricing models. Applications in macroeconomics include the analysis of business cycles and problems associated with the characterization of expectations as in models of inflation.

NOTE: Students who have received credit for this topic under an ECON 398 number may not take this course for credit.

ECON 398 ***Selected Topics in Economics*** (3 credits)

ECON 399 ***Selected Topics in Economics*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

ECON 401 Advanced Microeconomic Theory (3 credits)

Prerequisite: ECON 222, 302, 326. Selected topics in microeconomic analysis including methodology, general equilibrium analysis, welfare economics; theory of the firm, factor pricing, and income distribution capital theory. Primarily for major, specialization, and honours students.

ECON 403 Advanced Macroeconomic Theory (3 credits)

Prerequisite: ECON 222, 304, 326. Selected topics in macroeconomic analysis including construction of models of the economy encompassing the labour, product, and financial markets; the role of monetary and fiscal policies; classical, Keynesian, and post-Keynesian models. Primarily for major, specialization, and honours students.

ECON 409 History of Early Economic Thought (3 credits)

Prerequisite: ECON 222, 302, 304. This course covers the evolution of economic thought from the Greek philosophers up to (and including) Classical economics. It seeks to provide the student with an outline of the development of economic analysis in this period.

NOTE: Students who have received credit for ECON 408 may not take this course for credit.

ECON 410 History of Modern Economic Thought (3 credits)

Prerequisite: ECON 222, 302, 304. This course covers the evolution of economic thought from the Historical School to modern controversies in economic reasoning, which includes a comparative treatment of Keynesian economics and Monetarism.

NOTE: Students who have received credit for ECON 408 may not take this course for credit.

ECON 413 Economic Growth and Fluctuations (3 credits)

Prerequisite: ECON 222, 302, 304. A review of some theories of causes of economic fluctuations. Discussion of the economic climate and of stabilization policies.

ECON 414 Economic Development: Policy Analysis (3 credits)

Prerequisite: ECON 222, 302, 304. This course offers an advanced treatment of selected topics related to issues in economic development. Particular emphasis is placed on models of growth and structural change, such as the two-gap model, input-output analysis, and computable general equilibrium models. Trade and industrial policies, fiscal and financial policies, as well as public-sector policies including taxation, spending, and cost-benefit analysis are also discussed.

NOTE: Students who have received credit for ECON 312 or 411 may not take this course for credit.

ECON 421 Econometrics I (3 credits)

Prerequisite: ECON 324, 325 or equivalent. This course builds on the classical linear regression model as well as introducing time series models involving both stationary and non-stationary variables. Topics may include random regressors, method of moments estimation and a variety of models involving simultaneous equations, VEC, VAR, ARCH, panel, qualitative and limited dependent variables. Students continue to build on their knowledge of data management and a statistical software package through the application of these concepts and theories.

ECON 422 Econometrics II (3 credits)

Prerequisite: ECON 421. This course is intended for those interested in further developing their knowledge of econometrics and/or those contemplating pursuing graduate studies in economics. It re-examines the properties, assumptions and interpretation of the classical linear regression model and the maximum likelihood model through the use of matrix algebra. Students continue to build on their knowledge of data management and a statistical software package through the application of these concepts and theories.

ECON 423 Topics in Applied Econometrics (3 credits)

Prerequisite: ECON 324, 325 or equivalent. This course focuses on the development of skills in the analysis of both time-series and cross-sectional data. Time-series topics may include univariate stationary time series models, forecasting, unit-root theory, trend-stationarity, and testing and applications. Cross-sectional topics may include logit, probit and linear probability models. Students may also analyze large-survey microdata.

ECON 425 Mathematics for Advanced Study in Economics (3 credits)

Prerequisite: ECON 222, 302, 304, 326. This course gives students the requisite mathematical background for graduate studies in economics. Topics include algebraic methods, and static and dynamic optimization techniques needed for the study of economic theory and econometrics. Difference and differential equations are also examined.

ECON 430 Transportation Economics (3 credits)

Prerequisite: ECON 222, 302, 304. This is a course in the field of applied economics, with a focus on transportation economics. Topics may include the evaluation of the economic benefits of various transportation systems, the social costs of transportation,

road pricing, government participation in transportation finance and urban planning, the redistributive and other economic effects of transportation investment.

NOTE: Students who have received credit for this topic under an ECON 498 number may not take this course for credit.

ECON 432 *Monetary Theory* (3 credits)

Prerequisite: ECON 222, 302, 304. The nature of the monetarist-Keynesian controversy and critical appraisal of the IS-LM-AS model. Special topics: theory and evidence of term structure of interest rates, post-Keynesian demand for and supply of money in aggregative and disaggregative economic models. Theory of macroeconomic policy. Transmission mechanisms, policy coordination, lags, international constraints, and other problems.

ECON 433 *Financial Economics* (3 credits)

Prerequisite: ECON 222, 302, 304, 325 or equivalent. This course introduces students to the theory and practice of finance as seen from the economist's point of view. In particular, it examines the following topics: the theory of decision making under uncertainty; the basic portfolio models, such as the CAPM and the APT; equilibrium aspects of financial markets, such as the role of arbitrage in the pricing of financial assets; the pricing of derivative securities, such as options.

NOTE: Students who have received credit for this topic under an ECON 498 number may not take this course for credit.

ECON 436 *The Economics of Taxation* (3 credits)

Prerequisite: ECON 222, 302, 304. This course focuses on the effects of taxation on economic behaviour. Major topics considered include the excess burden of taxation in decisions to supply effort, savings and investment, the incidence of corporate taxation, and the design of commodity taxation. Among policy issues, topics such as tax evasion, and the taxation of multinational enterprises are examined.

NOTE: Students who have received credit for ECON 435 may not take this course for credit.

ECON 437 *Economics of Public Expenditure* (3 credits)

Prerequisite: ECON 222, 302, 304. This course examines the economic consequences of public expenditure on the economy. Topics covered include public goods, externalities, the theory of welfare measurement, public investment criteria, pricing policy of public enterprises, public choice and intergovernmental fiscal relations.

NOTE: Students who have received credit for ECON 435 may not take this course for credit.

ECON 440 *Market Design* (3 credits)

Prerequisite: ECON 222, 302, 304. This course focuses on the design and analysis of market mechanisms, which are concerned with how to construct rules for allocating resources and how to structure successful marketplaces. It draws on tools of game theory to identify why certain market rules or institutions succeed and why others fail. Topics may include matching markets, auctions, contracts, economic platforms and network effects. The main objectives of this course are to introduce students to some of the fundamental concepts and ideas in the theory of market design and to connect this theory to real-life markets and to practical aspects of market design policy.

NOTE: Students who have received credit for this topic under an ECON 498 number may not take this course for credit.

ECON 442 *International Economics: Trade Theory* (3 credits)

Prerequisite: ECON 222, 302, 304. The basis of international trade, gains from trade, factor-price equalization, the tariff, Canadian commercial policy, trade and development, economic integration.

ECON 443 *International Economics: Finance* (3 credits)

Prerequisite: ECON 222, 302, 304. This course is an introduction to theory of national income determination in open economies with capital mobility. It includes analyses of balance of payments, exchange rate, and the role of monetary and fiscal policies under different exchange rate regimes. Among other issues covered are international policy coordination, optimum currency areas, and features of the international monetary system.

ECON 450 *Economic History* (3 credits)

Prerequisite: ECON 222, 302, 304. Advanced topics in economic history, with emphasis on the application of economic theory to specific historical questions.

ECON 461 *Industrial Organization* (3 credits)

Prerequisite: ECON 222, 302. This course examines departures from the perfect competition paradigm to analyze economic behaviour in an industrial setting. An industry consists of a number of firms which interact strategically to maximize their profits. Topics addressed include measures of market structure, theories of oligopoly, effects of potential entry, product differentiation and advertising, technological change, vertical integration, and monopoly and merger issues.

ECON 462 *The Corporate Economy* (3 credits)

Prerequisite: ECON 222, 302. This course investigates the nature and behaviour of the firm. Economic rationalizations are presented for organizing production within a firm. The economic effects of various organization structures are examined. Topics addressed include team production, contractual models of the firm, principal-agent theory, tournaments, and the relationship between managers, shareholders, and the outside market.

ECON 463 *Economics of Regulation* (3 credits)

Prerequisite: ECON 222, 302. This course is devoted to an examination of the economic aspects of governmental regulations. Besides a critical review of the economic theories of regulation, the spectrum of the existing regulatory network, and empirical investigations aimed at discerning cost-benefits, the course focuses on the process of regulatory reforms in all aspects of the Canadian economy.

ECON 464 *Game Theory, Information, and Economic Modelling* (3 credits)

Prerequisite: ECON 222, 302, 304. This introductory course on game theory is a collection of mathematical tools to model and analyze strategic interactions in a variety of settings, from economic and social situations to politics and international relations. The course focuses on both non-co-operative and co-operative game theoretic modelling, in particular, strategic and extensive form games, Bayesian games, and coalitional games. Students learn to solve games using the concepts of dominant strategies, Nash-equilibrium, subgame perfection, Bayesian equilibrium, and the core. Applications may include repeated games, auctions, bargaining, oligopoly games, entry deterrence, pricing strategies, and collusion.

ECON 465 *The Economics of Professional Sport* (3 credits)

Prerequisite: ECON 222, 302, 304. This is a course in applied microeconomic theory. Various observations on the state of professional sports are explained using economic theory. Evidence of the statistical relevance of such explanations is also investigated. Issues addressed include the magnitude of the earnings of professional sports stars; the impact of free agency on competitive balance in sports leagues; the value of professional sports teams to cities, and whether such valuation justifies public subsidization of franchises or arenas.

NOTE: Students who have received credit for this topic under an ECON 498 number may not take this course for credit.

ECON 481 *Labour Economics* (3 credits)

Prerequisite: ECON 222, 302, 304. The course deals with topics in labour economics using microeconomic concepts such as inter-temporal decision-making, uncertainty, moral hazard, adverse selection and market signalling. The following topics are covered: labour supply and demand, wage differentials, human capital theory, efficiency wages and implicit contracts.

ECON 482 *Economics of Personnel and Industrial Relations* (3 credits)

Prerequisite: ECON 222, 302, 304. The main objective of this course is to describe how modern microeconomics and modern labour economics can be used to solve practical human resource and personnel issues. These include hiring and firing practices, optimal payment and compensation structure, unions and strike behaviour.

ECON 483 *Employment, Earnings and Labour Market Policies* (3 credits)

Prerequisite: ECON 222, 302, 304. This course covers topics in labour economics from the macroeconomic perspective. The key topics include equilibrium unemployment, job search, wage determination mechanisms, labour income processes and labour mobility. The course also devotes a substantial amount of time to macroeconomic policy issues of the labour markets such as employment insurance, minimum wage and union.

ECON 485 *Health Economics* (3 credits)

Prerequisite: ECON 222, 302, 304. This course introduces students to the role of economics in health, health care, and health policy. It surveys the major topics in health economics and forms an introduction to the ongoing debate over health care policy. Topics include the economic determinants of health, the market for medical care, the market for health insurance, the role of government in health care, and health care reform.

ECON 491 *Environmental Economics* (3 credits)

Prerequisite: ECON 222, 302. This course provides a survey, from the perspective of economics, of public issues regarding the use of environmental resources, ecosystems and the management of environmental quality. The course covers both conceptual and methodological topics with recent and current applications. It begins with an introduction to the theory and methods of environmental and natural resource economics and concepts of sustainable development. Then the emphasis is shifted to the optimal use of natural resources, both non-renewable resources (mineral and energy) and renewable resources, and the valuation of environmental resources. In the last part of the course, we examine national and international environmental policy issues, including intergenerational equity and environmental ethics.

ECON 493 *Regional Economics* (3 credits)

Prerequisite: ECON 222, 302, 304. This course introduces the student to the methods and techniques of regional economic analysis, and their application to the problems of regional economies within Canada. Among the micro-economic topics covered are the location behaviour of firms and households, and the factors determining the allocation of land among alternative competing uses. Macroeconomic topics include the measurement and analysis of regional income and growth levels, cyclical changes in those levels, and interregional differences in growth rates. Policy problems pertinent to Canadian regions are stressed throughout the course.

ECON 495 *Economics of Transportation and Communications* (3 credits)

Prerequisite: ECON 222, 302. Congestion problems and solutions, pricing, costs, demand, and regulation in transportation. Some applications to communications.

ECON 496 *Natural Resource Economics* (3 credits)

Prerequisite: ECON 222, 302, 304. This course focuses on the problems of the finiteness of the natural resources base in Canada and in the world, and on an analysis of the demand for and supply of natural resources and energy. The course also discusses the economic aspects of a selected group of conservation measures (financial incentives, reallocation of property rights, regulation).

NOTE: Students who have received credit for ECON 396 or for this topic under an ECON 498 number may not take this course for credit.

ECON 497 *Income Distribution and Economic Inequality* (3 credits)

Prerequisite: ECON 222, 302, 304. This course examines the extent and dimensions of economic inequality among households both domestically and internationally. Topics covered include theories of income inequality, wealth inequality, recent trends in polarization, poverty, intergenerational bequests, the welfare state, and the role of government economic policy.

ECON 498 *Advanced Topics in Economics* (3 credits)

ECON 499 *Advanced Topics in Economics* (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

Faculty

Chair

SARA KENNEDY, PhD *McGill University*; Associate Professor

Distinguished Professors Emeriti

PHILIP ABRAMI, PhD *University of Manitoba*; Provost's Distinction
ROBERT BERNARD, PhD *University of Washington*
HAROLD ENTWISTLE, PhD *University of London*
ELLEN JACOBS, MEd *Tufts University*
PATSY M. LIGHTBOWN, PhD *Columbia University*
SANDRA WEBER, PhD *University of Alberta*

Professors

WALCIR CARDOSO, PhD *McGill University*
SAUL CARLINER, PhD *Georgia State University*; Provost's Distinction
AILIE CLEGHORN, PhD *McGill University*
MIRANDA D'AMICO, PhD *McGill University*
NINA HOWE, PhD *University of Waterloo*
SANDRA MARTIN-CHANG, PhD *McMaster University*
KIM MCDONOUGH, PhD *Georgetown University*
M. AYAZ NASEEM, PhD *McGill University*
HELENA P. OSANA, PhD *University of Wisconsin-Madison*
RICHARD F. SCHMID, PhD *Arizona State University*
STEVEN SHAW, PhD *Concordia University*
PAVEL TROFIMOVICH, PhD *University of Illinois at Urbana-Champaign*
DAVID WADDINGTON, PhD *Stanford University*

Associate Professors

ADEELA ARSHAD-AYAZ, PhD *McGill University*
CAROLINA CAMBRE, PhD *University of Alberta*
SANDRA CHANG-KREDL, PhD *McGill University*
GIULIANA CUCINELLI, PhD *McGill University*
ANN-LOUISE DAVIDSON, PhD *University of Ottawa*
ARPI HAMALIAN, MA *American University of Beirut*
DIANE PESCO, PhD *McGill University*
HARICLIA PETRAKOS, PhD *McGill University*
HOLLY RECCHIA, PhD *Concordia University*

Assistant Professors

JIYAE BONG, PhD *Florida State University*
JULIE CORRIGAN, PhD *University of Ottawa*

Senior Lecturers

TERESA HERNANDEZ-GONZALEZ, PhD *Universidad Complutense de Madrid*
HEIKE NEUMANN, PhD *McGill University*

Lecturers

ELSA LO, PhD *McGill University*
NATHALIE ROTHSCHILD, PhD *University of Toronto*

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus
Faubourg Building
1610 St. Catherine St. W., Room: FG 5.150
514-848-2424, ext. 2004

Department Objectives

The Department of Education offers general undergraduate programs as well as two teacher-training programs. The general programs focus on educational issues for lifelong learning, while the teacher-training programs are specifically for Early Childhood and Elementary Education and the Teaching of English as a Second Language. Students receive expert supervision in their field placements and are carefully guided in their methods courses. The Department values creativity and innovation in the teaching/learning environment and instills in its students a sense of responsibility with respect to equality, diversity and non-discrimination.

Programs

(For *Teaching of English as a Second Language*, see §31.090.1; for *Adult Education*, see §31.090.2)

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

24 Minor in Education

24 Chosen from EDUC 210⁶, 230³, 240³, 270³, 298³, 299⁶, 305³, 307³, 321³, 360³, 398³, 399⁶, 405³, 411³, 422³, 426³, 427³, 454³, 498³, 499⁶

120 BA Specialization in Early Childhood and Elementary Education

Group A

93 ARTE 201³; EDUC 210⁶, 211³, 222³, 260³, 264³, 295³, 296³, 297³, 301³, 311³, 355³, 380³, 381³, 382³, 384³, 386³, 387³, 388³, 395³, 396³, 400³, 445³, 450³, 454³, 493³, 494³, 495³, 496³; TESL 232³

6 Group B

Chosen from EDUC 230³, 304³, 305³, 307³, 315³, 321³, 385³, 405³, 406³, 411³, 422³, 423³, 426³, 427³, 434³, 464³, 498³

21 Group C

Elective credits chosen from a list approved by the Department

Students must take all Group A and Group B courses in the Early Childhood and Elementary Education (ECEE) program at Concordia. For Group C courses, students must have a valid reason for taking courses at another university and must obtain permission from the director of the ECEE program regarding any substitutions.

NOTE 1: This program is open to full-time students only. In addition to the application submitted to the University, specialization applicants MUST complete an additional application which may be obtained from the Early Childhood and Elementary Education program assistant.

NOTE 2: Students may be recommended to the Quebec Teachers Certification Service for a Quebec permanent teaching diploma, valid for teaching kindergarten and cycles 1 to 3 (Grades 1 to 6) provided they have met the following requirements:

- 1. successfully completing the degree and certification requirements for the BA Specialization in Early Childhood and Elementary Education; 2. satisfying the English language proficiency requirements of the MEES; and 3. applying to graduate.*

NOTE 3: Group C courses exclude all EDUC courses and INST 250.

To remain in the Early Childhood and Elementary Education Specialization program and to be recommended for certification, students must:

1. achieve at least a "B" grade in each of the following practicum courses: EDUC 295, 296, 297, 395, 396, 493, 494, 495, 496; and
2. achieve at least a "C+" grade in each of the following methods courses: EDUC 222, 301, 355, 380, 381, 382, 384, 385, 386, 387, 388.

Students who obtain a grade that is below the above-required level are placed on conditional standing within the program and are informed in writing. Students are allowed to repeat the course in question only once, the next time the course is given, in order to achieve the required grade. (For the status of this grade as part of the student record, see §16.2.6.)

Students who fail to achieve the above minimum grades in two internships/methods courses (i.e. failing the same internship/methods course twice or two different internships/methods courses) cannot continue in the program and are required to withdraw from the Early Childhood and Elementary Education Specialization program (see §16.2.6).

45 BA Major in Child Studies

24 EDUC 210⁶, 211³, 250³, 260³, 302³, 311³, 360³

15 From one area of concentration*

6 Chosen from EDUC 230³, 305³, 307³, 315³, 321³, 405³, 411³, 422³, 426³, 464³, 498³

*See areas of concentration.

Areas of Concentration

A. *Early Childhood Settings* (15 credits)

15 EDUC 303³, 304³, 406³, 460³, 461³

B. *Exceptionality and Diversity in Childhood Settings* (15 credits)

15 EDUC 361³, 362³, 402³, 462³, 463³

NOTE: A minimum "C+" grade is required for all Field Placement courses for the Child Studies program, i.e. EDUC 460, 461, 462, 463. Students who obtain a grade below the minimum "C+" are allowed to repeat the course(s) in question only once. Students

who achieve a final grade below C+ in the same Field Placement course(s) twice are asked to withdraw from the Major in Child Studies program (see §16.2.6).

For other programs which may be of particular interest to teachers, see §23.

Courses

EDUCATION

EDUC 200 ***English Exam for Teacher Certification*** (0 credit)

Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization, Teaching English as a Second Language Specialization, or Art Education Major or Specialization. The regulation respecting teaching licences requires that all students admitted to a teacher education program demonstrate their proficiency in the language of instruction as a condition for certification. To fulfill this requirement, students are required to register and write the exam approved by the MEES. Students must pass this exam prior to the start of the following internships: EDUC 493, TESL 486 or 487, and ARTE 423.

EDUC 210 ***Psychology of Education*** (6 credits)

This course introduces students to a broad range of content in educational psychology, including its scope and methods, learning motivation, growth and development, adjustment, individual differences, guidance, and concept of self.

EDUC 211 ***Child Development I*** (3 credits)

Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization, or Major in Child Studies. This course provides an introduction to current theory (e.g. cognitive, social-cognitive, social learning) about children's development and covers various domains of development (social, emotional, cognitive, physical) from conception to age 12. The implications of children's development in relation to various contexts (e.g. family, neighbourhood, peers, education) are discussed.

EDUC 222 ***Exploring Movement with Children*** (3 credits)

Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization. From a multidisciplinary perspective, this course examines the following topics: the relationship between movement and self-knowledge, psychomotor development, and the role of physical activity in primary education. The course addresses the teacher's role in incorporating movement into the curriculum for all children, including those with special needs through the use of specific techniques and activities.

EDUC 230 ***Introduction to Philosophy of Education*** (3 credits)

This course introduces the student to the content and form of several major educational theories, and to conceptual and logical procedures of philosophizing about education, with particular reference to teaching and learning.

EDUC 240 ***Introduction to Training and Development*** (3 credits)

This course provides an overview of the design and development of training in organizations by introducing students to theoretical and practical concepts. Topics explored include the organizational and personal benefits of training, different modes of delivery including e-learning (an instructional systems design approach to training development), the transfer of learned skills to the workplace environment, the evaluation of training, the management of the development process, and trends and successful practices in the field.
NOTE: Students who have received credit for this topic under an EDUC 298 number may not take this course for credit.

EDUC 250 ***Introductory Information Literacy Skills in Education*** (3 credits)

Prerequisite: Enrolment in Major in Child Studies. This course is designed to introduce students to basic research practices used in the field of education and its related disciplines. It familiarizes students with a variety of information sources in both print and non-print formats. Emphasis is placed on developing a systematic search strategy and the use and evaluation of the information sources. Topics such as outlining and bibliographic formats are covered as part of the research process.
NOTE: Students who have received credit for INST 250 may not take this course for credit.

EDUC 260 ***Historical and Current Curriculum Models for Early Childhood and Elementary Education*** (3 credits)

Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization, or Major in Child Studies. This course provides an introduction to the historical and current curriculum models for early childhood and elementary education. The historical and philosophical roots of modern constructivist approaches to curriculum are discussed with an emphasis on how 20th-century thinkers have influenced contemporary curriculum models. Recent Canadian approaches to curriculum development and provincial curriculum frameworks also are discussed.

EDUC 264 ***Communication: Child, Parent and Teacher*** (3 credits)

Prerequisite: 30 credits; enrolment in Early Childhood and Elementary Education Specialization. This course focuses on the role parents play in the various stages of the child's academic, social, and emotional development. The format for this course is unique in that parents of the children in the observation nursery are involved, and students interact with them by conducting and participating in parent-teacher seminars. Topics include parenting, the impact of the family on the child's classroom behaviour, child abuse, cultural issues, disciplinary measures at home and in school, the coordination of home-and-school academic goals, and achievement motivation.

EDUC 270 *Educational Communication* (3 credits)

In this course, students study fundamental communication skills used by effective instructors. By examining how to write the most basic types of instructional content, including definitions, objectives, descriptions and procedures, and the most common forms of written instructional content, including how-to articles and lesson plans, this practical, writing-intensive course emphasizes effective instructional communication methodologies.

NOTE: Students who have received credit for this topic under an EDUC 298 number may not take this course for credit.

EDUC 295 *Internship I: Prekindergarten Teaching* (3 credits)

Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization; EDUC 296 concurrently and in their first year of the ECEE program. This internship gives students first-hand knowledge of the importance of early education. It permits students to develop preliminary skills in observing, assessing, and meeting the needs of individual children, articulating educational objectives, working effectively with small groups, and planning and implementing a play-based curriculum. Students are placed in a prekindergarten class one day a week for a total of 60 hours.

EDUC 296 *Prekindergarten Teaching Seminar* (3 credits)

Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization; EDUC 295 concurrently. This course supports EDUC 295 by offering a thorough introduction to theoretical and applied aspects of early childhood education through a weekly seminar consisting of lectures, discussions, and video presentations on such topics as the educational and developmental needs of young children, models of education, the role of the teacher, play-based curriculum and instruction, health and safety issues, and the design of appropriate prekindergarten learning environments.

EDUC 297 *Internship II: Observation and Evaluation in Education* (3 credits)

Prerequisite: EDUC 295, 296; enrolment in Early Childhood and Elementary Education Specialization. The purpose of this course is to teach students how to conduct evaluations at the elementary-school level. Students learn observation techniques, documentation procedures, authentic assessment, and formative and summative evaluation. Students learn how to create a dynamic profile of the child and how to prepare reports for parents, administrators, and specialists. Students conduct observations in recognized educational institutions (40 hours).

NOTE: Students who have received credit for EDUC 371, 373, and 375 may not take this course for credit.

EDUC 298 *Selected Topics in Education* (3 credits)**EDUC 299 *Selected Topics in Education*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

EDUC 301 *Integrating Computers into the Elementary Classroom* (3 credits)

Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization, Art Education Major or Specialization. This course provides an introduction to theoretical and practical knowledge regarding the use of computers in elementary school classrooms. Assignments are designed to provide students with hands-on experience with the computer. Topics include social interaction and equity, problem-solving skills, software evaluation, interactive technologies, and curriculum planning.

EDUC 302 *Working in Childhood Settings: Leadership and Organizational Issues* (3 credits)

Prerequisite: Enrolment in Major in Child Studies. This course provides students with an introduction to leadership in childhood settings, with a focus on child care. Issues reviewed include the organizational framework, quality of curriculum, human resources, leadership styles, financial and administrative matters, environments, and community relationships.

EDUC 303 *Children, Families, and Social Policy* (3 credits)

Prerequisite: EDUC 210 and 211; enrolment in Major in Child Studies. This course examines social policy as it relates to children and families in Canada. Policies may include such areas as children's rights, child care, education, health, and social welfare.

EDUC 304 *Play in Childhood Settings* (3 credits)

Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization, or Major in Child Studies; EDUC 210 and 211. This course introduces students to (1) developmental theories of children's play, and (2) practical ways that play can be facilitated in early childhood settings. Emphasis is placed on understanding: types of play (e.g. pretend, physical, solitary, social, rough and tumble); play-based curriculum and the role of the educator; toys, materials, and environments that promote high-quality play; cultural diversity and play; and play in inclusive environments.

EDUC 305 *Technology for Educational Change* (3 credits)

Prerequisite: Enrolment in an Education program. This course provides an introduction to advances in the theory, research, and practice of educational technology. Projects and activities allow for a diversity of interests.

EDUC 307 *Integrating Digital Technologies and Social Media in Learning Environments* (3 credits)

This course introduces students to the social and cognitive theories of digital technologies in learning and training environments. These technologies include hardware such as interactive tablets and screens, mobile devices, and software such as online multimedia, video, serious games and social media. This course discusses these technologies using problem-based learning approaches. Students also engage in practical project-based activities.

EDUC 311 *Child Development II: Ecology of the Family* (3 credits)

Prerequisite: EDUC 210, 211; enrolment in Early Childhood and Elementary Education Specialization, or Major in Child Studies. This course is designed to provide students with an in-depth review of the developmental, psychological, and socio-cultural aspects of the child and the family. Emphasis is placed on structural elements related to the modern family (e.g. family size, developmental tasks), family relations (e.g. transition to parenthood, parenting styles, early relationships) and issues related to contemporary families.

EDUC 315 *Sexual Health Education for Children and Youths* (3 credits)

Prerequisite: Enrolment in the Specialization in Early Childhood and Elementary Education; or 30 university credits and enrolment in the Major in Child Studies or the Minor in Interdisciplinary Studies in Sexuality. By evaluating available resources, practical tools, and curricula in today's Canadian society, this course familiarizes students with approaches to sexual health education that are suitable for working with children and youth in a variety of educational settings, including the home, community agencies, and schools. The importance of gearing education to accommodate different developmental stages, ages, and local social contexts is stressed.

EDUC 321 *Gender Socialization in Education* (3 credits)

This course focuses upon the role of gender in different levels of education. Factors such as culture, policy, and language are discussed. The mechanisms by which gender roles are maintained and challenged in educational institutions are also examined through the relevant theories.

EDUC 355 *Teaching Ethics and Religious Culture* (3 credits)

Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization. This course enables students to develop a stimulating and sensitive ethics and religious culture program that promotes children's ability to (a) reflect on ethical questions, (b) demonstrate an understanding of the phenomenon of religion, and (c) engage in dialogue with others. Relevant resource materials are examined and assignments focus upon development of activities for the elementary-level classroom.

NOTE: Students who have received credit for THEO 355 may not take this course for credit.

EDUC 360 *Introduction to Inclusive Practices* (3 credits)

Prerequisite: Enrolment in Major in Child Studies or Minor in Education; EDUC 210. This course is an introduction to inclusive practices for children with special needs in childhood settings. Topics include the evolution of special education; laws and policies; current models of service delivery; identification and assessment of learning needs; advocacy; and collaboration with families.

NOTE: Students who have received credit for EDUC 450 may not take this course for credit.

EDUC 361 *Inclusive Practices in Early Childhood Settings* (3 credits)

Prerequisite: Enrolment in Major in Child Studies; EDUC 360. This course focuses on the implementation of inclusive practices in early childhood settings. Topics include differentiating and adapting curriculum; meeting the needs of individual children; collaborating with families and professionals; implementing developmentally appropriate practices; and facilitating development in various domains (social-emotional, cognitive, behavioural and communication).

NOTE: Students who have received credit for EDUC 490 may not take this course for credit.

EDUC 362 *Inclusive Practices for School-Aged Populations* (3 credits)

Prerequisite: Enrolment in Major in Child Studies and EDUC 360. This course focuses on the implementation of inclusive practices in school-aged populations, (K – 11 settings). Topics include differentiating and adapting curriculum; meeting the needs of individual students; collaborating with families, teachers, and other professionals; implementing evidence-based strategies to promote literacy and academic achievement; and facilitating social-emotional, cognitive, and behavioural competencies.

NOTE: Students who have received credit for EDUC 491 may not take this course for credit.

EDUC 380 *Teaching Language Arts I* (3 credits)

Prerequisite: 30 credits; enrolment in Early Childhood and Elementary Education Specialization. This course enables students to acquire the necessary skills for developing a stimulating and appropriate language arts program for kindergarten and primary grades. Current theories of literacy development and implications for planning and instruction are addressed. The course focuses on listening, speaking, reading, and writing, emphasizing the integration of language arts activities into other subject areas.

EDUC 381 *Teaching Language Arts II* (3 credits)

Prerequisite: 30 credits including EDUC 380; enrolment in Early Childhood and Elementary Education Specialization. This course is a continuation of EDUC 380 with special emphasis on teaching language arts in Grades 3 to 6. Students become familiar with Quebec Education Program (QEP) guidelines, and various ways to organize and evaluate their implementation.

EDUC 382 *Teaching Science Concepts in the Elementary Classroom* (3 credits)

Prerequisite: 30 credits; enrolment in Early Childhood and Elementary Education Specialization. This course examines areas of science which are relevant to elementary education and emphasizes the development of the spirit of scientific inquiry. Resource materials, teaching methodology, and classroom activities are examined and evaluated in light of the MEES guidelines. Assignments emphasize developing activities for classroom use.

EDUC 384 *Teaching Social Studies in Elementary Schools* (3 credits)

Prerequisite: 30 credits; enrolment in Early Childhood and Elementary Education Specialization. This course examines the teaching of social studies to elementary-school-age children.

EDUC 385 *Teaching a Second Language in Early Childhood and Elementary School* (3 credits)

Prerequisite: 30 credits; enrolment in Early Childhood and Elementary Education Specialization. This course is designed to give teachers a background in current theories of language acquisition and second language learning. Teaching methodologies such as immersion, enrichment, and core/complementary curricula are studied and resource materials are examined and evaluated. Assignments include the development of appropriate classroom activities at the elementary level.

EDUC 386 *Teaching Mathematics I* (3 credits)

Prerequisite: 15 credits; enrolment in Early Childhood and Elementary Education Specialization. This course introduces a conceptual analysis of school mathematics and its application to the early childhood and elementary education classrooms. Topics include numeracy acquisition, counting, whole number operations, and problem solving. Emphasis is placed on the development of children's thinking and pedagogical practices aimed at assisting students to think mathematically. Current mathematics curricula are examined and evaluated in this context.

EDUC 387 *Teaching Mathematics II* (3 credits)

Prerequisite: 30 credits; enrolment in Early Childhood and Elementary Education Specialization; EDUC 386. This course continues a conceptual analysis of school mathematics and its application to the elementary classroom. Topics include fractions, decimals, proportions, per cents, algebraic reasoning, and geometry. Emphasis is placed on the development of children's thinking and pedagogical practices aimed at assisting students to think mathematically. Current mathematics curricula are examined and evaluated in this context.

EDUC 388 *Teaching Mathematics III* (3 credits)

Prerequisite: 30 credits; enrolment in Early Childhood and Elementary Education Specialization; EDUC 387. This course continues a conceptual analysis of school mathematics and its application to the elementary classroom. Topics include algebra, geometry, probability, statistics, and data analysis. Emphasis is placed on the development of children's thinking and pedagogical practices aimed at assisting students to think mathematically. Current mathematics curricula are examined and evaluated in this context.

EDUC 395 *Internship III: Kindergarten Teaching* (3 credits)

Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization; 30 credits including EDUC 295, 296, 297; EDUC 396 concurrently. This internship is a seven-week (245 hours) supervised student-teaching experience in a full-day kindergarten classroom. Students share in the daily work of their co-operating teachers, and progress gradually from being participant observers working with small groups to taking charge of the whole class. Students practise their skills in activity planning, intervention strategies, the evaluation of student learning, and the management of classroom routines.

EDUC 396 *Kindergarten Teaching Seminar* (3 credits)

Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization; 30 credits including EDUC 295, 296, 297; EDUC 395 concurrently. This seminar complements EDUC 395 by providing the opportunity, means, and impetus for students to reflect critically on their teaching philosophy and practice. Topics include the development of appropriate and stimulating learning environments, Ministère de l'Éducation et de l'Enseignement supérieur (MEES) kindergarten program guidelines, planning and implementation of learning centres, teaching centres, teaching the "whole" child, teacher-parent relationships, and other current issues in kindergarten education.

EDUC 398 *Selected Topics in Education* (3 credits)**EDUC 399 *Selected Topics in Education*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

EDUC 400 *Teaching Across the Curriculum* (3 credits)

Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization. Using language arts and the social sciences as the starting point, this course outlines different models for integrating school subjects in curriculum programming. Special attention is given to social science methodology, thematic planning and project work, and to the use of literature and drama. Students examine the links between the different programs of study developed for Quebec schools and their overall implications for curriculum planning.

EDUC 402 *Diversity Issues in Childhood* (3 credits)

Prerequisite: Enrolment in Major Child Studies; EDUC 210 and 211. This course explores the diversity of contemporary Canadian childhood, including issues related to immigration, language, culture, and socioeconomic status. The course reviews theoretical approaches to diversity and examines how these shape practice with children and families in education and other fields.

EDUC 405 *Children and Technology* (3 credits)

Prerequisite: 30 credits. This course examines the interaction between children and technology from a socio-cultural perspective, including the effects of media such as television, computers, and the Internet. Emphasis is placed on the developing child in the context of communication and technology as related to informal educational activities and play.

EDUC 406 *Physical Activity: Health and Well-being in Early Childhood Settings* (3 credits)

Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization, or Major Child Studies; EDUC 210, 211. This course examines the basic principles and practices of health, safety, physical activity, and nutrition that promote the wellness

of young children in early childhood environments. Topics include health promotion; illness and prevention; physical activity; nutrition; safety promotion; preventing child maltreatment; and stress in the lives of young children. Students examine legislative requirements of group care, which are necessary to plan safe, inclusive and developmentally appropriate environments.

EDUC 411 *Toys, Media Literacy and Children's Popular Culture* (3 credits)

Prerequisite: Enrolment in an Education program. This interdisciplinary course examines the multiple roles that toys and the popular culture of childhood and adolescence can play in relation to development, learning, socialization and identity processes. Topics addressed include cultural and personal meanings constructed around toys, media literacy, the increasing role of new technologies, and issues related to the branding and marketing of toys through the media.

NOTE: Students who have received credit for this topic under an EDUC 498 number may not take this course for credit.

EDUC 422 *Sociology of Education I* (3 credits)

Prerequisite: 30 credits. This course emphasizes sociological concepts and their theoretical and practical applications to the study of education. The focus is on the following: how the education system is structured, how schooling and education fit into the overall social structure, how educational experiences vary for members of different social groups, the role education plays in gender, class, and racial inequalities, the complexity of issues relating to student evaluation and performance, and the role education plays in social change.

NOTE: Students who have received credit for EDUC 421 may not take this course for credit.

EDUC 423 *Sociology of Education II* (3 credits)

Prerequisite: EDUC 422. This course considers how a particular sociological viewpoint contributes to our understanding of school life. Topics include family, socialization patterns, teacher and pupil perspectives, and how these are interrelated.

NOTE: Students who have received credit for EDUC 421 may not take this course for credit.

EDUC 426 *Comparative Education I* (3 credits)

Prerequisite: Six credits in Education. This course undertakes the study of the impact of political and cultural differences upon educational systems (for example, the impact of language differences, nationalism, colonialism, neocolonialism, political socialization). The approach is comparative, with particular emphasis on contrasting educational systems and practice in selected countries.

EDUC 427 *Comparative Education II* (3 credits)

Prerequisite: Six credits in Education. This course examines the sources and impacts of educational change from a comparative perspective. Topics include pedagogical alternatives; socio-political alternatives; educational implications of technological change and economic policy; policies of elitism and egalitarianism. Methods include comparative case study and analysis of specific theories of educational innovation.

EDUC 432 *Seminar in Epistemology and Education* (3 credits)

Prerequisite: Six credits in Education, or permission of the Department. Theories of knowledge are considered in this course, with special attention being given to the bearing of such topics as perception, evidence, truth, knowledge, and belief as relating to educational thought and practice. Students are expected to become familiar with recent periodical and other literature in the field.

EDUC 434 *Aesthetics and Education* (3 credits)

Prerequisite: EDUC 230 or permission of the Department. The nature of aesthetic value and experience, and theories of art and beauty are examined. The development of the emotions and imagination, and their functions in aesthetic awareness are central concerns of this course. Students are expected to become familiar with the relevant literature in the field.

EDUC 445 *Education in Quebec* (3 credits)

Prerequisite: 30 credits in a teacher certification program, or holder of a provisional teaching authorization, or permission of the Department. This course covers the history, the contemporary movements, and the structures of Quebec education. The historical section covers the period from 1608 until the present. Topics included are the legislation, regulations, rules, and directives pertaining to the respective roles of the Ministère de l'Éducation et de l'Enseignement supérieur (MEES), the school boards, the teachers, the parents, and the students in Quebec's educational system.

NOTE: Because this is a required course for all individuals enrolled in a Quebec program of teacher training, the content is controlled by the MEES.

EDUC 450 *The Inclusive Classroom: Educating Exceptional Children* (3 credits)

Prerequisite: 30 credits including EDUC 210 or 211; enrolment in a teacher training program (ECEE, TESL, Art Education). This course focuses on the education of children with special needs. Emphasis is placed on ways in which classroom teachers can provide appropriate help or instruction to meet the needs of exceptional children. Topics include identification and assessment of learning needs; adaptation of curriculum and activity design, service delivery models; parent-professional relationships; legislative policies.

EDUC 454 *Diversity in the Classroom* (3 credits)

Prerequisite: 30 credits including EDUC 210 or 211. Students examine the implications of diversity in the classroom for teaching, curriculum, and children's educational experience. Various theoretical approaches are analyzed, including critical pedagogy, multicultural education, and intercultural education. The importance of inclusive curricula is discussed.

EDUC 460 *Child Studies Field Experience: Early Childhood Settings* (3 credits)

Prerequisite: Enrolment in Major in Child Studies; EDUC 302; EDUC 304, 406; EDUC 461 concurrently. Students develop skills in observation and in planning curriculum for children in early childhood settings. Students are required to complete a field placement for two half-days or one full-day per week, for a total of 60 hours, in a centre-based child care or preschool setting for children ages 0 to 5 years.

NOTE: Students who have received credit for EDUC 374 may not take this course for credit.

EDUC 461 *Child Studies Seminar: Early Childhood Settings* (3 credits)

Prerequisite: Enrolment in Major in Child Studies; EDUC 302; EDUC 304, 406; EDUC 460 concurrently. This course complements EDUC 460 and covers theoretical and applied aspects of working with children in early childhood settings. This course focuses on reflective practices, curriculum planning and using observational techniques, and organization of child-care settings that promote the health, safety and education of children ages 0 to 5 years.

NOTE: Students who have received credit for EDUC 374 may not take this course for credit.

EDUC 462 *Child Studies Field Experience: Inclusive Practices in Childhood Settings* (3 credits)

Prerequisite: Enrolment in Major in Child Studies; EDUC 360; EDUC 361 or 362; EDUC 463 concurrently. Students develop skills in observing and planning curriculum for children exhibiting a range of social-emotional, cognitive, behavioural, and academic competencies and needs. Students are required to participate in a field placement one day per week, for a total of 60 hours in settings such as schools, community organizations, hospitals, or rehabilitation centres.

NOTE: Students who have received credit for EDUC 492 may not take this course for credit.

EDUC 463 *Child Studies Seminar: Inclusive Practices in Childhood Settings* (3 credits)

Prerequisite: Enrolment in Major in Child Studies; EDUC 360; EDUC 361 or 362; EDUC 462 concurrently. This course complements EDUC 462 and covers theoretical and applied aspects of working with children in inclusive childhood settings. This course focuses on reflective practices, curriculum planning and using observational techniques.

NOTE: Students who have received credit for EDUC 492 may not take this course for credit.

EDUC 464 *Research Methods in Child Studies* (3 credits)

Prerequisite: 60 credits in Early Childhood and Elementary Education Specialization, or Major in Child Studies. This course introduces students to quantitative, qualitative, and mixed-methods research designs used by researchers in child studies and education. Students learn how research studies are conceptualized and conducted, and how data are analyzed and interpreted, and gain experience in the critical evaluation and application of research. Students complete a series of assignments during a lab section of the course. This course is primarily intended as a foundation for students who are preparing for graduate school.

EDUC 493 *Internship IV: Primary Teaching* (3 credits)

Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization; EDUC 200 and 60 credits including EDUC 295, 296, 297; EDUC 388, 395, 396 previously or concurrently; EDUC 494 concurrently. The internship is a seven-week (245 hours) supervised student-teaching experience in a primary classroom (Grades 1 to 3). Students share in the daily work of their co-operating teachers, and progress gradually from being participant observers working with small groups to taking charge of the whole class as independent, creative practitioners. Students perfect their skills in activity planning, intervention strategies, the evaluation of student learning, and the management of classroom routines.

EDUC 494 *Primary Teaching Seminar* (3 credits)

Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization; 60 credits including EDUC 295, 296, 297; EDUC 388, 395, 396 previously or concurrently; EDUC 493 concurrently. The seminar complements EDUC 493 by providing the opportunity, means, and impetus for students to reflect critically on their teaching philosophy and practice. Topics include the development of appropriate and stimulating learning environments, Ministère de l'Éducation et de l'Enseignement supérieur (MEES) primary program guidelines, planning and implementation of curriculum units, teacher-parent relationships, and other current issues in primary education.

EDUC 495 *Internship V: Upper Elementary Teaching* (3 credits)

Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization; 90 credits including EDUC 222, 295, 296, 297, 301, 380, 381, 382, 386, 387, 395, 396; EDUC 388, 493, 494 previously or concurrently; EDUC 496 concurrently. Students are placed in an elementary classroom (Grades 4 to 6) for a seven-week student-teaching experience (245 hours). They are provided with the opportunity to continue to develop their own teaching strategies and enhance their skills in curriculum planning and implementation, preparing and evaluating classroom materials, and monitoring student progress. Students participate in the daily routines and educational duties of their co-operating teachers and become involved in student activities.

EDUC 496 *Upper Elementary Teaching Seminar* (3 credits)

Prerequisite: Enrolment in Early Childhood and Elementary Education Specialization; 90 credits including EDUC 295, 296, 297, 395, 396; EDUC 388, 493, 494 previously or concurrently; EDUC 495 concurrently. The main focus of EDUC 496 is the discussion, review, and analysis of relevant material in the context of students' internship placements. Topics include curriculum development and diversity in the classroom population, involvement of parents in their children's education, Ministère de l'Éducation et de l'Enseignement supérieur (MEES) guidelines, teaching strategies, self-reflection and evaluation.

EDUC 498 Advanced Topics in Education (3 credits)

EDUC 499 Advanced Topics in Education (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

INFORMATION STUDIES

INST 250 Introductory Information Literacy Skills (3 credits)

This course is designed to introduce students to basic research practices. It familiarizes students with a variety of information sources in both print and non-print formats. Emphasis is placed on developing a systematic search strategy in the use and evaluation of the information sources. Topics such as outlining and bibliographic format are covered as part of the research process.

NOTE: Students who have received credit for EDUC 250 may not take this course for credit.

LIBRARY STUDIES

LIBS 495 Field Practice (3 credits)

Prerequisite: Completion of all other required Library Studies courses. In consultation with the appropriate supervising librarian, the student is placed in a local library system other than the library in which the student is employed. The duration of the field practice is five weeks. Field practice includes a wide variety of library tasks. In addition the student is required to complete a written research project on a topic approved by the professor.

31.090.1 TEACHING ENGLISH AS A SECOND LANGUAGE

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

NOTE: Upon admission, students may be granted exemptions from courses in TESL programs if they have completed equivalent work at the university level. Replacement for these exemptions must be made in accordance with the guidelines established by the Department of Education.

120 BEd Specialization in Teaching English as a Second Language

60 TESL 221³, 231³, 326⁶, 330³, 331³, 341³, 351³, 415³, 426⁶, 427³, 466³, 467³, 471³, 486⁶, 487⁶, 488³

15 EDUC 210⁶, 445³, 450³, 454³

15 ENGL 212³ and 213³, or 396⁶; any nine ENGL credits in English literature, of which three credits must be from Canadian Literature

6 Credits in a third language other than English or French

24 Elective credits chosen from a list approved by the Department

NOTE I: To be recommended for Quebec Teachers Certification Service for a "Brevet d'enseignement : autorisation personnelle permanente" (a teaching diploma), students must achieve at least a "C" grade in methodology courses: TESL 326⁶, 330³, 331³, 426⁶, 427³, 471³ and achieve a "pass" in the practice teaching courses: TESL 466³, 467³, 486⁶, and 487⁶ that are marked on a pass/fail basis.

Students who obtain a passing grade that is below the level required for recommendation for the teaching diploma are placed on conditional standing within the program and are so informed in writing by the TESL program director. Students are allowed to repeat the course(s) in question only once in order to achieve the required grade. (For the status of this grade as part of the student record, see Calendar §16.2.6.)

Students who fail to achieve the minimum grade in two methodology/practice teaching courses (i.e. failing to achieve a grade of "C" in a methodology course or a "pass" in a practice teaching course) are withdrawn from the TESL Specialization program and are also so informed in writing by the TESL program director (see Calendar §16.2.6).

Students who obtain a failing grade (F, R, or NR) in any of the courses listed above as methodology and practicum teaching are withdrawn from the program and are also informed in writing by the TESL program director.

NOTE II: Prior to the start of their third internship, students must demonstrate proficiency in the language of instruction on an exam recognized by the MEES (EDUC 200 *English Exam for Teacher Certification*).

NOTE III: Upon successful completion of the BEd (TESL) program and after application to the Office of the Registrar, a graduate may be recommended to the Quebec Teachers Certification Service for a "Brevet d'enseignement : autorisation personnelle permanente" (a teaching diploma). Graduates who wish to teach ESL in francophone schools must satisfy the French proficiency requirements of the school board to which they apply.

30 Certificate in the Teaching of English as a Second Language

6 ENGL 212³ and 213³, or 396⁶

24 TESL 221³, 231³, 324³, 331³, 341³, 424³, 435⁶

NOTE I: Students must demonstrate proficiency in the language of instruction prior to being admitted into the program (see Calendar §31.002).

NOTE II: Students in the TESL Certificate must achieve at least a "C" grade in the Practicum, that is, TESL 435. Students are allowed to repeat the course in question only once in order to achieve the required grade (see Calendar §16.2.6).

- 24 Minor in Teaching English as a Second Language
24 TESL 221³, 231³, 324³, 331³, 341³, 424³, 435⁶

NOTE I: Students must demonstrate proficiency in the language of instruction prior to being admitted into the program.

NOTE II: Students in the Minor in TESL must achieve at least a "C" grade in the Practicum, that is, TESL 435. Students are allowed to repeat the course in question only once in order to achieve the required grade (see Calendar §16.2.6).

TESL Courses

TESL 201 **Introduction to Teaching English as a Second Language** (3 credits)

This introductory course provides students with a comprehensive idea of what Teaching English as a Second Language entails. Activities are chosen to expose students to the wide range of possibilities of teaching English in Quebec and around the world. Students are initiated into this much-in-demand profession through project-based activities that require them to apply course concepts and put teaching skills into practice. They also develop skills in exploiting spoken and written texts as resources for language learning.

NOTE: Students currently enrolled in the BEd and Certificate in TESL programs may not take this course for credit.

TESL 221 **Phonology for Teachers** (3 credits)

Prerequisite: TESL 231 concurrently. The aim of this course is to provide students with a knowledge of the major features of the English sound system, and to prepare them, through practical teaching assignments with ESL students, to apply this knowledge in the language classroom. Contrasts and comparisons are made with French and other languages.

TESL 231 **Modern English Grammar** (3 credits)

Prerequisite: TESL 221 concurrently. This course provides students with an introduction to the grammatical system of English: morphemes, words, phrases, clauses, and sentences. Students become familiar with basic concepts and terminology in English grammar along with written usage conventions. They receive a coherent framework for analyzing English grammar, correcting grammar and usage errors, and writing texts designed for specific audiences.

NOTE I: For BEd in TESL: Students who do not achieve at least a C+ grade in TESL 231 are placed on conditional standing within the program and will be so informed in writing by the TESL program director. Students will be allowed to repeat this course only once in order to achieve the required grade.

NOTE II: Students who have received credit for TESL 232 may not take this course for credit.

TESL 232 **English Grammar** (3 credits)

Prerequisite: Enrolment in Early Childhood and Elementary Education or Art Education (Visual Arts). This course provides students with an introduction to the grammatical system of English: morphemes, words, phrases, clauses, and sentences. Students become familiar with basic concepts and terminology in English grammar along with written usage conventions. They receive a coherent framework for analyzing English grammar, correcting grammar and usage errors, and writing texts designed for specific audiences.

NOTE: Students who have received credit for TESL 231 may not take this course for credit.

TESL 298 **Selected Topics in TESL** (3 credits)

TESL 299 **Selected Topics in TESL** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

TESL 324 **Methodology I** (3 credits)

This course reviews current theory in applied linguistics which relates directly to teaching and learning ESL in the classroom. Techniques and methods appropriate to child, adolescent, and adult learners are discussed and demonstrated. In this course the emphasis is on classroom-oriented techniques and materials related to the teaching and assessment of listening and speaking skills.

NOTE: Students enrolled in the BEd Specialization in Teaching English as a Second Language may not take this course for credit.

TESL 326 **TESL Pedagogy: General** (6 credits)

Prerequisite: TESL 221, 231, EDUC 200 previously or concurrently. The purpose of this course is to introduce students to the profession of teaching English as a second language to children, adolescents, and adults. Students examine a variety of approaches and methodologies that have been used in the past and how these have contributed to current thinking and practices. They have the opportunity to observe English-language instruction in a variety of settings through visits and video presentations. They discuss issues related to lesson planning, audio-visual aids, classroom organization and management techniques. Special attention is paid to the creation of lessons appropriate to adult learners. A minimum of 30 hours is spent observing and assisting in adult ESL classes. Assignments include classroom-based projects.

TESL 330 **Computers in Language Learning** (3 credits)

Prerequisite: TESL 221, 231, 326. The purpose of this course is to introduce students to the uses of the computer in the ESL class. Students acquire knowledge of computer applications for language learning and how to incorporate this knowledge into classroom practice.

TESL 331 *Grammar for Teachers* (3 credits)

Prerequisite: TESL 231 with a grade of C+ or better. The purpose of this course is to provide students with current approaches, methods, and materials in the teaching of grammar to children, adolescents, and adults of the ESL classroom. Students will be prepared to analyze critically and modify published classroom materials related to the teaching and learning of grammar.

TESL 341 *Language Acquisition* (3 credits)

Prerequisite: TESL 221, 231 previously or concurrently; or permission of the Department. This course examines sociocultural and psycho-linguistic influences on the acquisition of a first and second language. These issues are examined in relation to the learning and teaching of a second language to children, adolescents, and adult learners.

TESL 351 *History of the English Language* (3 credits)

Prerequisite: TESL 221, 231 with a grade of C+ or better, or permission of the Department; TESL 415, 427, 467 concurrently. The purpose of this course is to provide students with an overview of the significant changes which have taken place in the English language from Proto-Indo-European to the present. Students consider the evolving nature of English and its role as an international language.

TESL 361 *Teaching English for Specific Purposes* (3 credits)

Prerequisite: TESL 324, or permission of the Department. This course provides instruction in the teaching of language skills to those who require English either as an auxiliary to their scientific, technical, or professional skills or as a medium for training in these areas.

TESL 398 *Selected Topics in TESL* (3 credits)**TESL 399 *Selected Topics in TESL*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

TESL 415 *Testing, Evaluation and Course Design* (3 credits)

Prerequisite: TESL 426 or 427 previously or concurrently. The purpose of this course is to prepare students to test and evaluate learners in different types of ESL programs. Students examine syllabi and evaluation systems used in the schools and become familiar with evaluation-related documents produced by the Ministère de l'Éducation et de l'Enseignement supérieur (MEES).

TESL 424 *Methodology II* (3 credits)

Prerequisite: TESL 324. This course continues the presentation of techniques and methods begun in TESL 324. In this course the emphasis is on classroom-oriented techniques and materials related to the teaching and assessment of reading and writing skills.
NOTE: Students enrolled in the BEd Specialization in Teaching English as a Second Language may not take this course for credit.

TESL 426 *Pedagogy: Primary* (6 credits)

Prerequisite: TESL 326; TESL 330, 466, EDUC 210 previously or concurrently. The purpose of this course is to familiarize students with the principles of TESL pedagogy in regular and intensive ESL primary classrooms. This course emphasizes knowledge of MEES primary-school programs and approved materials. Students learn classroom management techniques, assessment practices, and how to adapt materials to specific primary-school contexts.

TESL 427 *Pedagogy: Secondary* (3 credits)

Prerequisite: TESL 426, 466; TESL 467 concurrently. The purpose of this course is to familiarize students with the principles of TESL pedagogy in regular and Language Arts (ESL-LA) ESL secondary classrooms. This course emphasizes knowledge of MEES secondary programs and approved materials. Students learn classroom management techniques, assessment practices, and how to adapt materials to specific secondary-school contexts.

TESL 435 *Practicum* (6 credits)

Prerequisite: Enrolment in TESL Certificate or Minor; TESL 331, 341, and 424 either previously or concurrently. In this course, students practise techniques which were introduced in their methodology courses, TESL 324 and TESL 424. This course includes lectures and field teaching experiences. The lectures focus on theories and techniques for the assessment of ESL learners. The field teaching experiences include observation of ESL classes, peer teaching, and the facilitation of sessions with groups of ESL learners. Requirements include lesson planning, assessment of ESL learners, and the evaluation of peers and one's own teaching performance.

NOTE I: Students enrolled in the BEd Specialization in Teaching English as a Second Language may not take this course for credit.

NOTE II: Students in the TESL Certificate and Minor must achieve at least a "C" grade in this course. Students will be allowed to repeat this course only once in order to achieve the required grade (see Calendar §16.2.6).

TESL 466 *Internship: Primary I* (3 credits)

Prerequisite: TESL 330, 426, EDUC 210 previously or concurrently. The purpose of this course is to apply the principles acquired in TESL 426 to the teaching of ESL to primary-school learners. Students attend on-campus seminars and spend a minimum of 140 hours observing and teaching in a primary school supervised by a co-operating teacher and a university professor.

TESL 467 *Internship: Secondary I* (3 credits)

Prerequisite: TESL 427 concurrently; TESL 466. The purpose of this course is to apply the principles acquired in TESL 427 to the teaching of ESL to secondary-school learners. Students attend on-campus seminars and spend a minimum of 140 hours observing and teaching in a secondary school supervised by a co-operating teacher and a university professor.

TESL 471 *Teaching Language Arts: Secondary* (3 credits)

Prerequisite: TESL 426, 466; TESL 427 previously or concurrently. The purpose of this course is to familiarize students with the principles and techniques of teaching comprehension and production skills to advanced secondary learners of ESL. Students are made familiar with current approaches to the teaching of high-level oral interaction skills, reading and writing skills, corrective feedback to writing, and the use of long-term projects and portfolios. The use of authentic English texts such as essays, novels, short stories, poetry, and drama is emphasized.

NOTE: Students who have received credit for TESL 318 or for this topic under a TESL 498 number may not take this course for credit.

TESL 486 *Internship: Primary II* (6 credits)

Prerequisite: 105 credits including ENGL 212, 213 with a grade of C+ or better; EDUC 200, 450, 454; TESL 330, 331, 341, 415, 426, 466, 471; TESL 487, 488 concurrently. The purpose of this course is to further develop the skills required in teaching ESL to primary-school learners. Students teach a minimum of 210 hours supervised by a co-operating teacher and a university professor. In addition, students attend on-campus seminars in which they discuss and reflect upon their experiences in the schools.

TESL 487 *Internship: Secondary II* (6 credits)

Prerequisite: EDUC 200; TESL 467; TESL 486, 488 concurrently. The purpose of this course is to further develop the skills required in teaching ESL to secondary-school learners. Students teach a minimum of 210 hours supervised by a co-operating teacher and a university professor. In addition, students attend on-campus seminars in which they discuss and reflect upon their experiences in the schools.

TESL 488 *Internship Seminar* (3 credits)

Prerequisite: TESL 486, 487 concurrently. The purpose of this course is to integrate the knowledge gained during the BEd with the knowledge that students have acquired during practice in the field. Students reflect on and make explicit their own professional and personal development over the course of the four-year program and set goals for future long-term professional development.

TESL 491 *Study in a Special Subject* (3 credits)

Prerequisite: Permission of the Department. This course provides an opportunity for advanced students to intensify their study beyond the area of specialization already represented by the curriculum. The selected subject varies with the special interest of the instructor conducting the course in any given year.

TESL 492 *Study in a Special Subject* (3 credits)

Prerequisite: Permission of the Department. A student repeating TESL 491 registers for credits under TESL 492.

TESL 498 *Advanced Topics in TESL* (3 credits)**TESL 499 *Advanced Topics in TESL*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

Courses in English as a Second Language — ESL Courses

Courses in English as a Second Language are designed for students who are not native speakers of English and who need further training in the effective use of English in the university setting. Students must be tested for placement in ESL 202 or 204 and 205 or 206. Information about placement testing may be obtained at concordia.ca/artsci/education/programs or from the Department of Education, 1610 St. Catherine St. W., Room: FG 5.150, 514-848-2424, ext. 2031. A fee is charged for the placement test. (See concordia.ca/admissions/tuition-and-fees.)

Written work is required in English for these courses: please consult with the Department.

NOTE: Program students in the Faculty of Arts and Science may take ESL courses for credit, up to a maximum of six credits.

ESL 202 *Developing Academic English Language Skills* (6 credits)

Prerequisite: Placement by the Concordia Comprehensive ESL Placement Test (ConCEPT). This course helps non-native-speaking students develop the language skills necessary for academic work through an integrated program of grammar, vocabulary, reading, and writing. The coursework enables students to build a wide range of vocabulary and grammatical structures and apply them to essential university tasks such as paraphrasing, expository writing, and processing academic texts.

ESL 204 *Refining Academic English Language Skills* (6 credits)

Prerequisite: ESL 202 or placement by the Concordia Comprehensive ESL Placement Test (ConCEPT). This course helps non-native-speaking students strengthen their English language skills and apply them to high-level academic tasks such as critical reading, synthesizing, and integrated writing assignments. Attention is paid to analyzing patterns in written English and making appropriate language choices as well as identifying, integrating, and referencing appropriate academic source material.

ESL 205 Academic Oral Communication I (3 credits)

Prerequisite: Placement by the Concordia Comprehensive ESL Placement Test (ConCEPT). This course helps students develop the oral skills necessary for speaking and listening in an English-speaking academic environment. The focus of the course is the improvement of students' overall pronunciation skills, including native-like production of English speech at the level of individual sounds, words, and sentences, as well as the development of the listening skills necessary for effective oral communication. This course includes a multimedia language lab component.

ESL 206 Academic Oral Communication II (3 credits)

Prerequisite: ESL 205 or placement by the Concordia Comprehensive ESL Placement Test (ConCEPT). This course helps students achieve greater intelligibility and fluency by practising oral communication skills in meaningful discourse, as part of communicative activities and public-speaking assignments. Emphasis is placed on the learning of speech phenomena at the discourse level such as production of native-like stress, rhythm, intonation, and speaking rate. This course includes a multimedia language lab component.

ESL 298 Selected Topics in ESL (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

31.090.2 ADULT EDUCATION

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

30 Certificate in Adult Education

Certificate Admission Requirements

General admission requirements are listed in §13. Applicants will be interviewed prior to admission.

Students must take:

- 9 ADED 201³, 202³, 220³
- 12 Chosen from the Adult Education (ADED) offerings
- 3 Chosen from cognate courses with the permission of the program director
- 6 ADED 496³, 497³, Integrative Internships I and II

Students may transfer into the certificate program credits earned in an incomplete degree or certificate program or as an independent student provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the program.

24 Minor in Adult Education

- 9 ADED 201³, 202³, 220³

- 15 Chosen from Adult Education (ADED) course offerings with the prior approval of the Adult Education advisor.
-

Courses

ADED 201 Concepts and Principles of Adult Education (3 credits)

This course consists of an overview of the field of adult education as a field of study with emphasis given to its philosophy, objectives, historical development, and the nature of adult learners. It also examines adult education as a field of practice with emphasis given to methods, techniques, roles, and competencies. This course stresses active student participation and self-directedness.

NOTE: Students who have received credit for ADED 200 may not take this course for credit.

ADED 202 The Scope and Nature of Adult Education Programs (3 credits)

This course is designed to help students develop an understanding of the scope and nature of adult education programs. Emphasis is placed on existing programs, and institutions and agencies providing them. The course stresses active student participation and self-directedness.

NOTE: Students who have received credit for ADED 200 may not take this course for credit.

ADED 220 Adults as Learners (3 credits)

This course examines the unique physiological, psychological, and sociological characteristics of adults, their influence on adult learning and development, and their implications for educational intervention. Attention is given to changes which occur at various stages of the adult life cycle, and particularly to the dimensions which affect the adult's self-concept and orientation to learning, the motivations, needs, and interests which cause adults to participate in educational activities.

ADED 230 Roles and Competencies of Adult Educators (3 credits)

The purpose of this course is to review the state of professionalization of adult education. General skills, knowledge, and attitudes expected of adult educators regardless of the setting in which they work are examined. In addition, according to the participants' needs and interests, an opportunity is given to explore competencies related to the particular roles of, e.g., administrators, program developers, trainers, leaders, instructors, counsellors, and volunteer workers.

ADED 240 *Introduction to Research in Adult Education* (3 credits)

This course is designed to introduce students to how to gain access to and utilize major information sources in adult education. In addition, the course examines research interests and problem areas studied in adult education and related fields, along with current trends and various methods of inquiry used.

ADED 298 *Selected Topics in Adult Education* (3 credits)

ADED 299 *Selected Topics in Adult Education* (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

ADED 302 *Group Dynamics* (3 credits)

This course examines the processes, conditions, and skills involved when adults work in groups. Participants develop a knowledge and understanding of group dynamics and acquire the skills needed for using groups as a means of adult learning. One of the approaches this course takes is to have participants learn about group dynamics by being actively involved in various interactive group situations.

NOTE: Students who have received credit for this topic under ADED 370 may not take this course for credit.

ADED 333 *Methods and Techniques for Facilitating Adult Learning* (3 credits)

This course is designed to give adult educators an opportunity to practise and improve their skills in facilitating adult learning. Different models of educational processes and optimal conditions for promoting adult learning are examined; attention is given to case studies, role plays, and simulation methods and techniques, as well as to individualized learning formats.

NOTE: Students who have received credit for ADED 330 or 331 may not take this course for credit.

ADED 344 *Design of Adult Learning Projects* (3 credits)

The purpose of this course is to assist participants in developing a clear working concept of various models for planning and designing adult learning projects. To facilitate this understanding, the different steps of the process are closely examined and discussed. Participants are given an opportunity to design and conduct a learning activity in the area of subject matter speciality. A systems approach, including methods for evaluating the design of the learning project is emphasized.

NOTE: Students who have received credit for ADED 340 or 341 or 343 may not take this course for credit.

ADED 345 *Evaluating Adult Learning Projects* (3 credits)

The purpose of this course is to assist participants in developing a clear working concept of various models for assessing the effectiveness of adult learning projects. The course emphasizes a systematic approach to evaluation, techniques for collecting information and providing feedback to program operation and impact. Participants are given the opportunity to conduct an evaluation of an adult learning project in the area of subject matter speciality.

NOTE: Students who have received credit for ADED 342 or 343 may not take this course for credit.

ADED 370 *Workshops for Adult Educators* (3 credits)

These workshops examine a number of topics and problems related to the field of adult education. The issues considered may differ from year to year and are stated in the Undergraduate Class Schedule. The workshop format is designed to provide adult educators with learning opportunities that are flexibly scheduled or in the form of a one-week intensive seminar.

ADED 398 *Selected Topics in Adult Education* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

ADED 403 *Diversity in Adults* (3 credits)

It is the role of adult educators (agents of change) to confront issues of diversity and to challenge the forces of racism, sexism, classism, homophobia, and discrimination. By integrating notions of education, and by reflecting on the roles of practitioners, this course develops strategies to resist structural inequality and oppression.

NOTE: Students who have received credit for this topic under an ADED 498 number may not take this course for credit.

ADED 410 *Adult Education in Canada and Quebec* (3 credits)

The purpose of this course is to examine the historical development and current state of adult education in Canada, with special reference to Quebec. Various factors which influenced the development of adult education in our society are explored; the focus is on present status, role and structure, and socio-cultural and philosophical underpinnings of the field.

ADED 412 *Concepts and Values in Adult Education* (3 credits)

This seminar is designed to encourage adult educators to reflect upon and question what one is engaged in and why. A selection of conceptual and philosophical issues underlying adult educational practice is critically examined and discussed. Attention is given to the meaning of words, the nature of ideas and values, the implications of assumptions and principles which are deemed specific in the sphere of the education of adults.

ADED 440 *Issues in the Practice of Adult Education* (3 credits)

The purpose of this seminar is to study and discuss current issues relating to the field and profession of adult education in general, along with more specific and local concerns. Group and individual interests have an important bearing on the design of this course.

ADED 496 *Integrative Internship I* (3 credits)

Prerequisite: ADED 201; ADED 202 and 15 credits in the program. This internship is designed to assist individual students in achieving a synthesis of their own experiential learning in light of acquired knowledge, skills, values, and attitudes through the clarification of personal aims and the philosophy of adult education. Students will normally enrol in this internship near the end of their program.

NOTE: Students who have received credit for ADED 495 may not take this course for credit.

NOTE: Students will normally enrol in ADED 496 near the end of their program.

ADED 497 *Integrative Internship II* (3 credits)

Prerequisite: Successful completion of ADED 496. This internship is designed to extend the personal aims and philosophy of adult education arrived at in Integrative Internship I, and engage in a special project in an adult education facility where supervision is provided by the host institution.

NOTE: Students who have received credit for ADED 495 may not take this course for credit.

ADED 498 *Advanced Topics in Adult Education* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

Faculty

Chair

MANISH SHARMA, PhD *University of Cambridge*; Associate Professor

Distinguished Professors Emeriti

HENRY BEISSEL, PhD *University of Cologne*

HOWARD FINK, PhD *University College London*

JUDITH S. HERZ, PhD *University of Rochester*

EDWARD PECHTER, PhD *University of California, Berkeley*

Professors

STEPHANIE BOLSTER, MFA *University of British Columbia*

JASON CAMLOT, PhD *Stanford University*

JILL DIDUR, PhD *York University*

MARCIE FRANK, PhD *Johns Hopkins University*

ANDRE FURLANI, PhD *University of Toronto*

PATRICK LEROUX, PhD *Université de Paris III – Sorbonne Nouvelle; Provost's Distinction*

JOSIP NOVAKOVICH, MPhil *Yale University*, MA *University of Texas at Austin*

KEVIN PASK, PhD *Johns Hopkins University*

JONATHAN SACHS, PhD *University of Chicago*

Associate Professors

JESSICA BARDILL, PhD *Duke University*

DANIELLE BOBKER, PhD *Rutgers University*

NATHAN BROWN, PhD *University of California, Los Angeles*

TERENCE BYRNES, MA *Concordia University*

MARY ESTEVE, PhD *University of Washington*

MEREDITH EVANS, PhD *Johns Hopkins University*

MIKHAIL IOSSEL, MSc *Leningrad Shipbuilding Institute*, MA *University of New Hampshire*

OMRI MOSES, PhD *University of California, Berkeley*

NICOLA NIXON, PhD *University of Toronto*

DANIEL O'LEARY, PhD *University of British Columbia*

STEPHEN POWELL, PhD *University of Toronto*

KATE STERNS, MA *Johns Hopkins University*, MFA *University of Texas at Austin*

DARREN WERSHLER, PhD *York University*

STEPHEN YEAGER, PhD *University of Toronto*

Assistant Professors

JESSE ARSENEAULT, PhD *McMaster University*

CYNTHIA QUARRIE, PhD *University of Toronto*

STEPHEN ROSS, PhD *University of Oxford*

Senior Lecturer

SINA QUEYRAS, MA *Concordia University*

Lecturers

DARRAGH LANGUAY, PhD *Queen's University*

MAGGIE McDONNELL, PhD *McGill University*

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus

J.W. McConnell Building, Room: LB 641

514-848-2424, ext. 2340

Department Objectives

The Department of English offers studies in literature, creative writing, and composition. Literary studies encourage appreciation and critical analysis of texts in their historical, literary, and cultural contexts. The Creative Writing program allows students to learn the craft involved in the production of original literary work. Professional Writing courses develop writing skills for use in business, technical, and other professional environments. Composition courses help to develop writing skills from basic to advanced levels.

Admission Requirements

TOEFL iBT REQUIREMENT

In order to be considered for admission to any of the programs offered by the Department of English, International applicants whose first language is not English must submit a recent TOEFL iBT score of 100 or higher with a minimum of 22 on the writing section. These tests must have been written within the past 24 months.

ADMISSION REQUIREMENTS FOR CREATIVE WRITING COURSES AND PROGRAMS

Creative Writing programs (Major, Minor, Honours in English and Creative Writing) are designed to develop the literary skills of students with a commitment to writing as an art form. Structured workshops guide students through the practice of their craft from introductory to advanced levels under the supervision of experienced writers. Enrolment is limited to permit constructive analysis of a student's work.

Admission to the Creative Writing programs and courses requires approval of a creative portfolio and a letter of intent. Students wishing to enter any introductory genre course in Creative Writing (225, 226, 227) or the Creative Writing programs (Major, Minor, Honours in English and Creative Writing) must apply by submitting a letter of intent and a portfolio consisting of a maximum of 15 pages of their best writing in poetry, drama, and/or fiction (short stories or novel excerpts). For students applying to the Creative Writing programs, submission in more than one genre is required.

Portfolios and letters of intent must be uploaded directly to the Student Centre through the MyConcordia portal in PDF format.

Application deadlines for students new to Concordia or in Concordia degree programs other than the BA are November 1 (for January admission) and March 1 (for September admission). Applications in these cases will be received as early as September and January, respectively. For students currently in a BA program in another discipline, the portfolio and letter of intent must be uploaded directly to the Student Centre in PDF format by June 1 for courses starting in September and by November 7 for courses starting in January. Since student demand regularly outpaces enrolment capacity, early application is advisable in all cases.

For further details on, and updates to, admission procedures, please consult the Department of English website.

Students are required to complete the appropriate entrance profile for entry into the program (see §31.002 — Programs and Admission Requirements — Profiles).

ADMISSION TO HONOURS PROGRAMS

Students seeking admission to honours programs may apply either for direct entry on the University application or, once in the program, to the departmental honours advisor, normally following the completion of 30 credits.

REQUIREMENTS FOR COMPOSITION COURSES

Before taking a composition course for the first time, students must take a placement test to determine which of the following courses is best suited to their writing needs: ENGL 206, 207, 210, 212, 213, or 396. Students in English Literature, Creative Writing, or Professional Writing programs write a placement test adapted to reflect their interests in literature and language. ENGL 206, 207, 210, 212, and 213 do not count toward English Literature or Creative Writing programs, but may be counted as general electives.

Programs

*Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.*

60 BA Honours in English Literature

- 3 ENGL 260³
- 6 ENGL 261³, 262³

NOTE: The above nine credits to be taken within first 24 credits

- 18 Chosen from the following four groups; at least three credits must be taken from each group. A course can only be counted in one group, even if it is listed in more than one.

- 1) Early and medieval from ENGL 302³, 304⁶, 305³, 306⁶, 307³, 308³, 430⁶, 432⁶, 433³, 434³
- 2) Renaissance from ENGL 310³, 311³, 316³, 317³, 318³, 319³, 320⁶, 435³, 436³, 437³
- 3) 18th century from ENGL 321³, 322³, 323³, 324⁶, 326³, 327³, 328³, 331³, 438³, 439³, 440³, 441³
- 4) 19th century from ENGL 324⁶, 329⁶, 331³, 332³, 333³, 334⁶, 335⁶, 441³, 442³, 443³

- 15 Chosen from the following four groups; at least three credits must be taken from each group. A course can only be counted in one group, even if it is listed in more than one.

- 1) Modern and contemporary from ENGL 303⁶, 336³ through 341³, 343³, 345³, 349³, through 359³, 446³

- 2) American from ENGL 360⁶ through 369³, 380³, 381³, 449³, 450³, 455³
- 3) Canadian from ENGL 244³, 370⁶, 373³, 374³, 376³, 377³, 378³, 379³, 380³, 451³, 452³, 453³
- 4) Postcolonial from ENGL 382³, 383³, 385³, 386³, 387³, 388³, 454³
- 3 Literary Theory or History of Criticism chosen from ENGL 389³, 390³, 391³, 392³, 393³, 394³, 444³, 447³
- 3 ENGL 470³
- 12 Elective credits from ENGL 224³ through 499⁶

NOTE: Honours students must take at least nine credits at the 400 level, including ENGL 470. However, a student, in consultation with the honours-majors advisor may substitute another 400-level course for ENGL 470.

60 BA Specialization in English Literature

- 3 ENGL 260³
- 6 ENGL 261³, 262³

NOTE: The above nine credits to be taken within first 24 credits

- 15 Chosen from the following four groups; at least three credits must be taken from each group. A course can only be counted in one group, even if it is listed in more than one.
 - 1) Early and medieval from ENGL 302³, 304⁶, 305³, 306³, 307³, 308³, 430⁶, 432⁶, 433³, 434³
 - 2) Renaissance from ENGL 310³, 311³, 316³, 317³, 318³, 319³, 320⁶, 435³, 436³, 437³
 - 3) 18th century from ENGL 321³, 322³, 323³, 324⁶, 326³, 327³, 328³, 331³, 438³, 439³, 440³, 441³
 - 4) 19th century from ENGL 324⁶, 329⁶, 331³, 332³, 333³, 334³, 335⁶, 441³, 442³, 443³
- 18 Chosen from the following four groups; at least three credits must be taken from each group. A course can only be counted in one group, even if it is listed in more than one.
 - 1) Modern and contemporary from ENGL 303³, 336³ through 341³, 343³, 345³, 349³, through 359³, 393³, 394³, 446³
 - 2) American from ENGL 360⁶ through 369³, 380³, 381³, 449³, 450³, 455³
 - 3) Canadian from ENGL 244³, 370⁶, 373³, 374³, 376³, 377³, 378³, 379³, 380³, 451³, 452³, 453³
 - 4) Postcolonial from ENGL 382³, 383³, 385³, 386³, 387³, 388³, 454³
- 18 Elective credits from ENGL 224³ through 499⁶

42 BA Major in English Literature

- 3 ENGL 260³
- 6 ENGL 261³, 262³

NOTE: The above nine credits to be taken within first 24 credits

- 6 Chosen from ENGL 303⁶, 338³ through 341³, 343³, 345³, 349³ through 388³
- 6 Chosen from ENGL 302³ through 341³, 343³, 345³, 349³ through 394³, 398³, 399⁶, 430⁶ through 499⁶
- 6 Chosen from ENGL 302³ through 341³, 343³, 345³, 349³ through 499⁶
- 15 Elective credits from ENGL 224³ through 480³, with at least three credits at the 300 or 400 level

66 BA Honours in English and Creative Writing

- 3 ENGL 260³
- 12 Chosen from ENGL 225⁶, 226⁶, 227⁶
- 6 ENGL 261³, 262³

- 15 Chosen from the following four groups. Students must take at least three credits in three of the groups. A course may count in only one group, even if it is listed in more than one.

- 1) Early and medieval from ENGL 302³, 304⁶, 305³, 306³, 307³, 308³, 430⁶, 432⁶, 433³, 434³
- 2) Renaissance from ENGL 310³, 311³, 316³, 317³, 318³, 319³, 320⁶, 435³, 436³, 437³
- 3) 18th century from ENGL 321³, 322³, 323³, 324⁶, 326³, 327³, 328³, 438³, 439³, 440³, 441³
- 4) 19th century from ENGL 324⁶, 329⁶, 331³, 332³, 333³, 334³, 335⁶, 441³, 442³, 443³
- 6 Chosen from ENGL 342⁶, 347³, 348⁶, 384⁶, 416³
- 6 Chosen from ENGL 342⁶, 347³, 348⁶, 384⁶, 414³, 415³, 416³, 417⁶, 428⁶, 429³, 486³
- 6 Modern and contemporary, American and postcolonial from ENGL 303⁶, 336³ through 341³, 343³, 345³, 349³ through 369³, 380³ through 388³, 393³, 394³, 446³, 449³, 450³, 454³, 455³
- 3 Canadian from ENGL 244³, 370⁶, 373³, 374³, 376³, 377³, 378³, 379³, 380³, 451³, 452³, 453³
- 9 Elective credits in English Literature courses (excludes ENGL 224 and all Creative Writing workshops)

NOTE: The Department of English limits students to 12 credits of creative writing courses in a single academic year.

NOTE: Students wishing to register for Honours in English and Creative Writing should refer to the admission requirements for Creative Writing courses and programs.

NOTE: At least three credits of coursework in English Literature must be at the 400 level; these three credits can coincide with fulfilling any of the other requirements.

42 BA Major in Creative Writing

- 12 Chosen from ENGL 225⁶, 226⁶, 227⁶
- 6 Chosen from ENGL 342⁶, 347³, 348⁶, 384⁶, 416³
- 12 Chosen from ENGL 342⁶, 347³, 348⁶, 384⁶, 414³, 415³, 416³, 417⁶, 428⁶, 429³, 486³
- 12 Elective credits in English Literature courses (excludes ENGL 224 and all Creative Writing workshops)

NOTE: The Department of English limits students to 12 credits of creative writing courses in a single academic year.

NOTE: Students wishing to register for the Major in Creative Writing should refer to the admission requirements for Creative Writing courses and programs.

24 Minor in Creative Writing

- 12 Chosen from ENGL 225⁶, 226⁶, 227⁶
6 Chosen from ENGL 342⁶, 348⁶, 384⁶

6 Elective credits in English Literature courses (excludes ENGL 224 and all Creative Writing workshops)

NOTE: The Department of English limits students to 12 credits of creative writing courses in a single academic year.

NOTE: Students wishing to register for the Minor in Creative Writing should refer to the admission requirements for Creative Writing courses and programs.

24 Minor in English Literature

- 3 ENGL 260³
21 ENGL elective credits in literature courses*

**Students are encouraged to consult with the Department in selecting their courses.*

24 Minor in Professional Writing

- 12 ENGL 213³, 214³, 215³, 216³
6 ENGL 396⁶
3 Chosen from ENGL 395³, 397³
3 Chosen from EDUC 270³; ENGL 233³, 390³, 395³, 397³

**Students are encouraged to consult with the Department in selecting their courses.*

60 BA Joint Specialization in English and History

- 6 ENGL 261³, 262³
6 Periods before 1800 (British) from ENGL 302⁶, 304⁶ through 328³, 430³ through 441³
6 Canadian, American, and postcolonial from ENGL 244³, 360⁶ through 388³, 449³ through 455³
6 19th century and 20th century (British and European) from ENGL 324⁶, 329⁶ through 341³, 343³, 345³, 349³ through 359³, 394³, 442³, 443³, 446³
6 Elective credits from ENGL 224³ through 499³
6 Chosen from HIST 200-level courses with History Skills Workshops (courses denoted as HISW in the Undergraduate Class Schedule)
9 HIST 200-level courses
9 HIST 300-level courses
6 HIST 300- or 400-level courses

English C.Edge (Career Edge) Option

Director

MAGGIE McDONNELL, *Lecturer*

The English C.Edge option is offered through the Institute for Co-operative Education to students enrolled in the Minor in Professional Writing. Like the co-operative program, C.Edge allows students to gain practical experience through work terms related to their field of study. It is limited to one or two work terms, normally in the summer. Students interested in applying for the C.Edge option should refer to §24 where a full description is provided.

Courses

200-level courses and 300-level courses without prerequisite are open to all students and may be used as English electives unless otherwise indicated.

These courses may require students to submit all written work in English only. Please consult the Department.

Not all courses listed here are offered in a given year. The Department will make an effort to offer the 200- and 300-level courses that are required for specific programs on a regular basis. General electives (230-254) and courses at the 400 level will be offered on a rotating basis. Students should consult the Concordia University web page and follow the links to the Department of English.

ENGL 206 Fundamentals of Written English – Stage I (3 credits)

Prerequisite: ESL 204 or placement test. This course provides training in grammar and idiomatic usage, through practice with articles and plurals, verb forms and tenses, prepositions and verb-preposition combinations, sentence structure, and punctuation, as well as reading comprehension and vocabulary development through practice in paraphrasing short texts.

NOTE 1: This course does not count for credit within any English program.

NOTE 2: Students who have received credit for this course may not subsequently take any ESL course for credit.

ENGL 207 Fundamentals of Written English – Stage II (3 credits)

Prerequisite: ENGL 206 or placement test. This course continues the work begun in ENGL 206 by providing additional training and practice in grammar and idiomatic usage, sentence structure and punctuation, as well as vocabulary development and reading comprehension through practice in paraphrasing and summarizing.

NOTE 1: This course does not count for credit within any English program.

NOTE 2: Students who have received credit for this course may not subsequently take any ESL course or English course earlier in the composition sequence for credit.

ENGL 208 *Introduction to English Composition and Literary Analysis* (3 credits)

Prerequisite: Placement test. This course is intended for students who wish to improve their writing skills through written analysis of fiction, drama, and literary essays.

NOTE 1: This course does not count for credit within any English Literature, Creative Writing, or Professional Writing program.

NOTE 2: Students who have received credit for this course may not subsequently take any ESL course for credit.

ENGL 210 *Introduction to Essay Writing* (3 credits)

Prerequisite: ENGL 207 or placement test. The course provides further practice in English composition by focusing on diction, sentence structure, punctuation, paragraph development, and essay writing.

NOTE 1: This course does not count for credit within any English program.

NOTE 2: Students who have received credit for this course may not subsequently take ENGL 206 or 207 for credit.

ENGL 212 *English Composition — Stage I* (3 credits)

Prerequisite: ENGL 210 or placement test. This course is intended to help students produce clear, concise, logically organized essays and reports. Emphasis is placed on purpose, organization, and development through analysis and integration of information from a variety of sources.

NOTE: Students who have received credit for this course may not subsequently take any ESL course or English course earlier in the composition sequence for credit.

ENGL 213 *English Composition — Stage II* (3 credits)

Prerequisite: ENGL 212 or placement test. This course further develops the writing skills acquired in ENGL 212 by familiarizing students with the processes and techniques necessary for the preparation of research papers and academic reports. Emphasis is placed on summarizing and paraphrasing, critiquing ideas and information, and synthesizing, citing, and documenting multiple sources. A library research skills component is a required part of this course.

NOTE 1: Students who have received credit for this course may not subsequently take ENGL 206, 207, 210, or 212 for credit.

NOTE 2: The composition sequence also includes ENGL 396.

ENGL 214 *Editing I: Grammar, Usage, and Style* (3 credits)

Prerequisite: ENGL 212. This course offers a practical analysis of the conventions governing contemporary English grammar and usage, punctuation, sentence structure, and syntax. It focuses on stylistic effectiveness and persuasive power in diverse professional situations.

NOTE: Students who have received credit for this course may not subsequently take any ESL course or ENGL 206–212 for credit.

ENGL 215 *Editing II: Principles and Practice of Editing* (3 credits)

Prerequisite: ENGL 214 previously or concurrently. This course builds on the concepts introduced in ENGL 214. Students are introduced also to copy editing and techniques for eliminating errors in style, mechanics, and fact, and substantive editing for identifying structural problems and reorganizing and rewriting documents.

NOTE: Students who have received credit for this course may not subsequently take ENGL 206, 207, 210, 212, or 213 for credit.

ENGL 216 *Audience and Purpose in Professional Writing* (3 credits)

Prerequisite: ENGL 213 previously or concurrently. This course examines the ways that information is presented to a variety of audiences through writing and the interaction of texts and images.

NOTE: Students who have received credit for this course may not subsequently take ENGL 206, 207, 212, 213 for credit.

ENGL 224 *The Creative Process* (3 credits)

This course introduces students to some options for developing their own process of literary creation, from the development of an idea through to the writing and editing of works of prose fiction, poetry, and/or drama. Coursework may include writing assignments, in-class exercises, readings, group presentations, and discussions. This course is open to all students.

NOTE: This course does not count for credit in any Creative Writing program (Major, Minor, Honours in English and Creative Writing).

ENGL 225 *Introductory Creative Writing: Poetry* (6 credits)

This is an introductory workshop in the writing of poetry. The first half of the course is an introduction to poetic forms and techniques. Required readings of poetry and critical essays, and exercises and assignments based on these readings, develop a common critical language and an understanding of poetry from a writer's point of view. This knowledge is applied during the second half of the course, during which the class is conducted as a writing workshop. Students submit their original work for class discussion and evaluation.

NOTE: Students wishing to register for ENGL 225, 226, or 227, should refer to admission requirements for Creative Writing.

ENGL 226 *Introductory Creative Writing: Prose Fiction* (6 credits)

This is an introductory workshop in the writing of prose fiction. The first half of the course is an introduction to prose forms and techniques. Required readings of fiction and critical essays, and exercises and assignments based on these readings, develop a common critical language and an understanding of fiction from a writer's point of view. This knowledge is applied during the second half of the course, during which the class is conducted as a writing workshop. Students submit their original work for class discussion and evaluation.

NOTE: Students wishing to register for ENGL 225, 226, or 227, should refer to admission requirements for Creative Writing.

ENGL 227 *Introductory Creative Writing: Playwriting* (6 credits)

This is an introductory workshop in the writing of plays. The first half of the course is an introduction to dramatic forms and techniques. Required readings of drama and critical essays, and exercises and assignments based on these readings, develop a common critical language and an understanding of drama from a writer's point of view. This knowledge is applied during the second half of the course, during which the class is conducted as a writing workshop. Students submit their original work for class discussion and evaluation.

NOTE: Students wishing to register for ENGL 225, 226, or 227, should refer to admission requirements for Creative Writing.

ENGL 231 *Medieval Literature in Translation* (3 credits)

This course studies influential texts in the Western tradition written between 400 and 1500, with emphasis on the innovations in the various genres of narrative (epic, saga, romance, tale) and erotic and ethical discourse. Texts by such writers as Marie de France, Chrétien de Troyes, Dante, and Petrarch, may be studied, as well as anonymous works such as Icelandic sagas and *The Song of Roland*.

ENGL 233 *Critical Reading* (3 credits)

This course is an introduction to the practice of close reading of selections chosen from poetry, fiction, drama, and non-literary prose with the aim of developing the skills necessary to respond to written texts.

ENGL 234 *Poetry* (3 credits)

Through a detailed examination of the various forms of poetry, this course is designed to familiarize students with the vocabulary and critical and technical concepts of the genre.

ENGL 235 *Short Fiction* (3 credits)

Through a detailed examination of the various forms of short fiction and the novella, this course is designed to familiarize students with the vocabulary, critical concepts, and history of the genre.

NOTE: Students who have received credit for ENGL 235N may not take this course for credit.

ENGL 237 *Tragedy* (3 credits)

This course is an introduction to the nature and varieties of tragic forms and sensibilities in Western literature. The course includes writers from antiquity to the present such as Sophocles, Euripides, Shakespeare, Behn, Racine, Hardy, Ibsen, Lorca, and Chopin.

ENGL 238 *Comedy* (3 credits)

This course is an introduction to the nature and varieties of comic forms and sensibilities in Western literature. The course includes writers from antiquity to the present such as Aristophanes, Cervantes, Jonson, Molière, Sterne, Gogol, Wilde, Leacock, and Amis.

ENGL 240 *Drama* (3 credits)

This course is an introduction to dramatic literature, principally in the Western tradition, and is designed to familiarize students with a selection of major works in this genre. Plays include ancient Greek dramas and works written for the stage by such writers as Aeschylus, Sophocles, Aristophanes, Shakespeare, Calderón, Webster, Racine, Molière, Büchner, Chekhov, Ibsen, Beckett, Handke, Stoppard, and Soyinka.

ENGL 241 *The Novel* (3 credits)

This course is an introduction to the varieties of novelistic forms in world literature. It familiarizes students with critical approaches to the novel and the history of the novel as a literary genre.

ENGL 243 *Satire* (3 credits)

This course is an introduction to the nature, varieties, and functions of satire, including writers from antiquity to the present, such as Juvenal, Horace, Erasmus, Swift, Voltaire, Byron, Butler, Orwell, Waugh, Spark, Richler, Vonnegut, and Atwood.

ENGL 244 *Quebec/Montreal Writing in English* (3 credits)

This course surveys the literature of Quebec written in English, with emphasis on Montreal writing. It includes such writers as F.R. Scott, MacLennan, Klein, Dudek, Layton, Symons, Gallant, Richler, Cohen, Allen, Anderson, Glassco, and Mouré.

ENGL 246 *Science Fiction* (3 credits)

This introductory course explores the development of science fiction from Mary Shelley to H.G. Wells to the present day. Along with works by such authors as Huxley, Clarke, Dick, Delany, Le Guin, Atwood, or Gibson, translated works by such authors as Verne, Zamyatin, and Lem may be studied.

NOTE: Students who have received credit for ENGL 246N may not take this course for credit.

ENGL 249 *Children's Literature* (3 credits)

As an introductory survey of children's literature, this course includes works written primarily for adults but traditionally also read by children, works specifically written for children, as well as fairy tales and other versions of folklore and myth written or adapted for children.

ENGL 250 *Forms of Popular Writing* (3 credits)

The topic of this course varies from year to year. It investigates such forms as spy novel, detective fiction, mystery, romance, travel writing, horror, and erotica in the context of the conventions, history, and popular appeal of the genre under discussion.

ENGL 251 *The Graphic Novel* (3 credits)

This course examines both literary and popular antecedents to the graphic novel, the variety of its forms, and its status in contemporary literature. Students are introduced to critical approaches that can take account of both verbal and visual aspects of the graphic novel.

NOTE: Students who have received credit for this topic under an ENGL 398 number may not take this course for credit.

ENGL 255 *Video Games and/as Literature* (3 credits)

This course is an introduction to the study of the formal, aesthetic and cultural aspects of video games. It places particular emphasis on the relationship of digital games to the history of literary form, introducing students to critical approaches that address the importance of narrative, the materiality of digital text, and the role of interpretive communities.

NOTE: Students who have received credit for this topic under an ENGL 398 number may not take this course for credit.

ENGL 260 *Introduction to Literary Study* (3 credits)

This course introduces students to the practice of literary criticism at the university level through reading and writing about a variety of literary texts while developing the tools to analyze them in a close and critical fashion. This entails attention to the fundamentals and varieties of literary criticism — genre, rhetorical and figurative language, and narrative structure — as well as some attention to the role of theory in literary study.

ENGL 261 *British Literature to 1660* (3 credits)

Starting with selected Old English texts in translation, the course examines the literary production of the medieval period and the 15th to 17th centuries in Britain. Works are studied in their social and historical contexts and, where possible, in relation to the other arts. The course may discuss *Beowulf*, Chaucer, Julian of Norwich, medieval drama, Malory, Skelton, Wyatt, Spenser, the Sidneyes, Shakespeare, Webster, Donne, Lanyer, Burton, Browne, and Milton.

NOTE: Students who have received credit for ENGL 230 may not take this course for credit.

ENGL 262 *British Literature from 1660 to 1900* (3 credits)

Prerequisite: ENGL 261 recommended. This course surveys literature written in Britain from the period following the Civil War and Commonwealth to the end of the Victorian era, periods traditionally labelled Neo-Classical, Romantic, and Victorian. The course considers such issues and forms as epic, mock-epic, satire, the development of the novel, the comedy of manners, the rise of the professional writer, the romantic lyric, the increasing activity of women writers, the origins of modernism, and the interrelations among the periods.

NOTE: Students who have received credit for ENGL 230 may not take this course for credit.

ENGL 298 *Selected Topics in English* (3 credits)

ENGL 299 *Selected Topics in English* (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

ENGL 302 *History of the English Language* (3 credits)

This course examines changes in the English language from the Anglo-Saxon era to the present, considering such matters as pronunciation, inflections, syntax, vocabulary, and social distribution.

ENGL 303 *Reading Women Writing* (6 credits)

This course offers an historical and theoretical perspective on writings by women from different periods, cultural contexts, and expressive forms. A close reading of selected novels, short stories, plays, and of polemical, poetic, and autobiographical works raises such issues as class, race, and gender; sexuality and creativity; national, collective, and individual identity; literary and political strategies of resistance; the use, transformation and subversion of literary forms; the popular and critical reception of individual works.

ENGL 304 *Chaucer* (6 credits)

This course studies major texts of Geoffrey Chaucer with emphasis on *Troilus and Criseyde* and *Canterbury Tales* in terms of the social, literary, and historical issues opened by these texts.

ENGL 305 *Studies in Medieval English Literature* (3 credits)

This course examines selected subjects in the history of Old English and Middle English literature. Specific topics and prerequisites for this course are stated in the Undergraduate Class Schedule.

ENGL 306 *Tolkien's Old English* (3 credits)

This course studies the fantasy novels of J.R.R. Tolkien alongside the works of Old English literature that inspired him, considering the grammar of Old English and such selections as the Exeter Riddles, The Battle of Maldon, The Anglo-Saxon Chronicle, and Beowulf in juxtaposition with Tolkien's novels.

NOTE: Students who have received credit for this topic under an ENGL 305 number may not take this course for credit.

ENGL 307 *The Viking Age in Poetry and Prose* (3 credits)

This course examines both Old English accounts of Viking incursions into England and Scandinavian accounts of Swedish and Danish migration, such as the Poetic Edda, skaldic poetry, and the Sagas, as well as the later-medieval literature memorializing the period, such as Anglo-Norman and Middle English romances, legal texts, chronicles, and saints' lives.

ENGL 308 *Mysteries, Miracles, and Medieval Drama* (3 credits)

This course studies drama in the period between the fall of the Western Roman Empire and the rise of the commercial theatre in the 16th century, focusing particularly on late-medieval England. This course includes such works as the Wakefield (or Towneley) mystery plays, the N-town plays, the York, Chester and Coventry Cycles, and morality plays such as *Everyman*.

ENGL 310 *16th-Century Prose and Poetry* (3 credits)

This course investigates aspects of the development of non-dramatic literature from the late-15th century to the 1590s, through an examination of representative poems and prose in their historical and cultural contexts. Works are selected from writers such as Skelton, Wyatt, Nashe, Spenser, Sidney, and Shakespeare.

ENGL 311 *17th-Century Prose and Poetry* (3 credits)

This course investigates aspects of the development of prose and lyric poetry from the 1590s through the Civil War and Commonwealth periods, including such issues as genre, form, the representation of subjectivity and gender, the function of patronage, and the shift to a print culture. Works are selected from writers such as Mary Sidney, Jonson, Lanyer, Donne, Browne, Herbert, Wroth, and Marvell.

NOTE: Students who have received credit for ENGL 311N may not take this course for credit.

ENGL 316 *Spenser* (3 credits)

This course examines Spenser's works, especially *The Faerie Queene*, in relation to such topics as genre, literary tradition, and historical and cultural contexts.

ENGL 317 *Studies in English Renaissance Literature* (3 credits)

This course examines selected subjects in the history of English Renaissance literature. Specific topics and prerequisites for this course are stated in the Undergraduate Class Schedule.

ENGL 318 *English Renaissance Drama* (3 credits)

This course studies plays written in the period from the start of the English commercial theatre in 1576 until its closing in 1642, in terms of the development of dramatic forms, court and popular culture, and social history. The course includes such writers as Kyd, Marlowe, Middleton, Jonson, Cary, Webster, and Ford.

NOTE: Students who have received credit for ENGL 318N may not take this course for credit.

ENGL 319 *Milton* (3 credits)

This course examines *Paradise Lost* and selections from Milton's early poetry, especially *Lycidas*, in the contexts of 17th-century writing, politics, and religion.

ENGL 320 *Shakespeare* (6 credits)

This course examines a range of Shakespearean texts in relation to such matters as dramatic and theatrical conventions, social history, poetic language, high and popular culture, critical history, and influence.

ENGL 321 *Restoration and Early 18th-Century Literature* (3 credits)

This course studies British literature from 1660, when the monarchy was returned to power, to 1730, when the court no longer dominated British literary culture. The course examines the wide range of genres introduced or transformed by the period's restless literary imagination, including the novel, satire, the letter, and the essay. It situates these developments in the context of changing ideas of status, gender, sexuality, science, politics, and economics.

ENGL 322 *Restoration and 18th-Century Drama* (3 credits)

This course examines the changing role of theatre in English culture after the re-opening of the theatres in 1660 to the middle years of the 18th century: from aristocratic heroism and libertine scandals to increasingly middle-class pleasures. It focuses on the transformation of dramatic conventions in such forms as the comedy of manners and sentimental tragedy and familiarizes students with the history of performance in the period, including the introduction of actresses and the codification of new acting styles.

ENGL 323 *The Literature of Sensibility* (3 credits)

This course examines the structure and nature of feeling in British literature of the mid- and late-18th century along with some consideration of concurrent developments in philosophy, historical and critical writing, and biography. It explores the contributions of concepts of sensibility and sympathy to aesthetic innovations such as realism, pornography, the gothic, and the sublime, and political developments such as feminism, abolitionism, and an emergent discourse of human rights.

ENGL 324 *The 18th- and 19th-Century Novel* (6 credits)

This course surveys developments in the British novel from its origins in documentary realism, satire, and romance, including the gothic, to the emergence of the novel as a dominant literary genre. The course includes works by such writers as Defoe, Fielding, Sterne, Radcliffe, Burney, Edgeworth, Austen, Dickens, the Brontës, Eliot, and Hardy.

ENGL 326 *Studies in 18th-Century British Literature* (3 credits)

This course examines selected subjects in the history of 18th-century British literature. Specific topics and prerequisites for this course are stated in the Undergraduate Class Schedule.

ENGL 327 Restoration and 18th-Century Satire (3 credits)

This course examines the development of satirical poetry, prose, and drama in the Restoration and 18th century. It explores formal issues such as satire's debts and contributions to pastoral, georgic, epic, comedy and the novel alongside such social, political, and intellectual concerns as the battle of the ancients and the moderns, libel, sedition, and copyright law, the rise of party politics, and changing gender roles. Writers may include Marvell, Rochester, Dryden, Swift, Pope, Manley, Gay, Fielding, and Sterne.

ENGL 328 The Rise of the Novel (3 credits)

This course examines the emergence and evolution of the novel and novel criticism from their beginnings in the 1680s until the end of the 18th century. It explores the reciprocal pressures of romance and realism in the formation of the novel in order to consider the ethical and aesthetic issues raised by this popular genre as well as the influences of other genres such as journalism, letters, diaries, and travel writing.

ENGL 329 Literature of the Romantic Period (6 credits)

This course examines the prose and poetry of the Romantic period (ca. 1790 to 1830s) in relation to such topics as the French Revolution, the Napoleonic wars, domestic politics, literary conventions, and the idea of the poet. Among the poets to be considered are Blake, Wordsworth, Coleridge, Byron, Shelley, and Keats. Some attention may be given to such writers as Dorothy Wordsworth, De Quincey, Hazlitt, the Lambs, Austen, Scott, Mary Shelley, and Peacock.

NOTE: Students who have received credit for ENGL 325 may not take this course for credit.

ENGL 331 18th- and 19th-Century Writing by Women (3 credits)

This course examines the poetry, prose, and drama of such writers as Astell, Manley, Finch, Haywood, Burney, Radcliffe, Edgeworth, Austen, Wollstonecraft, Shelley, the Brontës, and Eliot in such contexts as the gendering of authorship, the making of literary history, and the uses and transformations of literary conventions.

ENGL 332 Studies in 19th-Century British Literature (3 credits)

This course examines selected subjects in the history of 19th-century British literature. Specific topics and prerequisites for this course are stated in the Undergraduate Class Schedule.

ENGL 333 Studies in 19th-Century British Poetry (3 credits)

This course examines selected subjects in the history of 19th-century poetry in Britain. Specific topics and prerequisites for this course are stated in the Undergraduate Class Schedule.

ENGL 334 Studies in 19th-Century British Prose (3 credits)

This course examines selected subjects in the history of 19th-century British prose literature, including possibly non-fiction and fiction. Specific topics and prerequisites for this course are stated in the Undergraduate Class Schedule.

ENGL 335 Literature of the Victorian Period (6 credits)

This course studies the poetry, fiction and other prose writings of such writers as Carlyle, Tennyson, the Brownings, the Brontës, Dickens, George Eliot, Newman, Ruskin, and Arnold. These works are examined in relation to such issues as class divisions, gender roles, the erosion of the authority of institutional religion, the increasing prestige of scientific explanation, the growth of British imperial power.

NOTE: Students who have received credit for ENGL 330 may not take this course for credit.

ENGL 336 Late Victorian and Edwardian Writing (3 credits)

This course investigates such matters as late Victorian art and aesthetic theory, the rise of modernism, literary experimentation, and the interrogation of traditional values. Works are selected from such writers as Butler, Pater, Wilde, James, the Rossettis, Swinburne, Morris, Meredith, Schreiner, Hardy, Conrad, and Forster.

ENGL 338 Modern British Literature (3 credits)

This course examines British literature from the death of Queen Victoria in 1902 to the end of World War II in 1945, with reference to such topics as the world wars; the modernist coteries of Imagism, Vorticism, and Bloomsbury; the women's suffrage movement; the decline of the empire and rise of militant Leftist and Right-wing parties; and nationalist literary revivalism in Ireland, Scotland, and Wales. This course includes diverse works in a range of genres from this time period.

NOTE: Students who have received credit for ENGL 337 may not take this course for credit.

ENGL 339 British Literature Since 1945 (3 credits)

This course examines British literature since World War II with reference to such topics as the disintegration of the British Empire and the spread of its diaspora, the implementation of the Welfare State, entry into the European Community, Ulster sectarianism, mobilizations for gender equality and racial equity, youth culture from jazz and skiffle to punk and dub, the emergence of alternative theatre, the erosion of the State broadcasting monopoly and of State censorship, Thatcherism and Brexit. This course includes diverse works in a range of genres from recent decades.

NOTE: Students who have received credit for ENGL 337 may not take this course for credit.

ENGL 340 Modernism (6 credits)

The congeries of experimental movements collectively identified as Modernism, flourishing from prior to World War I until World War II, renegotiated artistic conventions, revived neglected traditions, and turned attention to the primary materials of art (sound, colour, language). In painting emerged a tendency to abstraction, in music a tendency to atonality, and in literature to non-mimetic forms. Experiments abounded in disjunctive, elliptical, impressionistic, allusive, and mythopoeic styles. Avant-garde artists organized

into numerous schools, including the Imagists, Surrealists, Dadaists, Constructivists, Futurists, and Vorticists. The literature, often produced by expatriates, was cosmopolitan, elitist, and provocative. Much of the most important work, appropriately enough in an era of female enfranchisement, was written by women. It was also the "Jazz Age," the nexus of which was the Harlem Renaissance. While the course focuses on the lively cross-fertilization of British and American writing, the international scope of Modernism is also emphasized, as well as its diversity (e.g. in ballet, cinema, music, and painting).

ENGL 341 *Modern Fiction* (3 credits)

This course examines a developing international literary culture from the early-20th century to the post-war period. Works are selected from such writers as Mann, Kafka, Proust, Stein, Camus, Borges, Nabokov, and Pynchon.

ENGL 342 *Creative Writing: Prose Fiction* (6 credits)

Prerequisite: Enrolment in a Creative Writing program and ENGL 226 or permission of the Department. Through intensive analysis and discussion of submitted work and directed reading in modern fiction, this workshop extends the development of students' narrative skills and their understanding of fictional forms.

NOTE: Students who have received credit for ENGL 426 may not take this course for credit.

ENGL 343 *Modern European Literature* (3 credits)

This course surveys late-19th- and 20th-century plays, poems, and novels in translation, chosen from such writers as Dostoevsky, Tolstoy, Ibsen, Chekhov, Gide, Sartre, Colette, Akhmatova, Svevo, Mann, Musil, Böll, and Calvino.

NOTE: Students who have received credit for ENGL 346 may not take this course for credit.

ENGL 345 *Modern Drama* (3 credits)

This course surveys the main currents of 20th-century drama in a study of such writers as Ibsen, Chekhov, Strindberg, Lorca, Lady Gregory, Ionesco, Barnes, Beckett, Albee, Pinter, Orton, Stoppard, and Handke.

ENGL 347 *Creative Non-Fiction Writing* (3 credits)

Prerequisite: Enrolment in a Creative Writing program and ENGL 225 or 226 or 227, or permission of the Department. This course is a workshop in the writing of creative non-fiction (journal, personal essay, travel, biography and autobiography) including the reading of selected texts and discussion and criticism of students' work.

NOTE: Students who have received credit for ENGL 410 or for this topic under an ENGL 429 number may not take this course for credit.

ENGL 348 *Creative Writing: Poetry* (6 credits)

Prerequisite: Enrolment in a Creative Writing program and ENGL 225 or permission of the Department. Through intensive analysis and discussion of students' work, experimentation with a variety of forms, and selected reading, this workshop helps students extend their grasp of poetics and their competence in the writing of poetry.

NOTE: Students who have received credit for ENGL 425 may not take this course for credit.

ENGL 349 *Modern Poetry in English* (3 credits)

This course studies the theory and practice of poets writing in English during the 20th century. Examples are chosen from such writers as Yeats, Pound, Eliot, Crane, Stein, Auden, Stevens, Moore, Bishop, and Merrill, as well as from some more recent poets.

ENGL 351 *20th-Century Writing by Women* (3 credits)

Through fiction, personal writings, poetry, and drama, this course examines gender and its discontents in turn-of-the-century and mid-century writing, in writing of the modernist period, and in writing of the politically oriented "second wave" of feminism of the 1960s and 1970s. Its concerns include the developing representation of race, class, and sexual orientation. Works are selected from such writers as Woolf, Hurston, Nin, Plath, Rich, Rule, Walker, Morrison, Cixous, Pollock, Gordimer, and El Saadawi.

ENGL 352 *Contemporary Writing by Women* (3 credits)

This course deals with fiction, personal writings, poetry, and drama from the late 1970s to the present. Its concerns may include the challenges and possibilities of postmodernism; experiments in writing the life, writing the body, writing between genres, between cultures; collaborative writing; the uses and transformations of traditional and popular forms of writing. Works are selected from such writers as Morrison, Desai, Munro, Marlatt, Scott, Maracle, Aidoo, Winterson, Gallant, Anzaldua, and Rendell.

NOTE: Students who have received credit for ENGL 354 may not take this course for credit.

ENGL 353 *Contemporary Irish Literature* (3 credits)

This course examines a selection of Irish literary texts reflecting the social, economic, political, and cultural transformations in both the North and the South, written since 1960 by writers such as Brian Friel, Seamus Heaney, Deirdre Madden, Eavan Boland, Dermot Bolger, Patrick McCabe, John McGahern, and Hugo Hamilton.

NOTE: Students have received credit for this topic under an ENGL 359 or IRST 398 number may not take this course for credit.

ENGL 354 *Studies in Contemporary Literature* (3 credits)

This course examines selected subjects in literature of recent decades.

NOTE: Students who have received credit for ENGL 350 may not take this course for credit.

ENGL 355 *Joyce* (3 credits)

This course will examine Joyce's *Ulysses* in its formal, historical, and cultural contexts. Other writings of Joyce may receive some attention.

ENGL 356 *The Irish Short Story Tradition* (3 credits)

This course traces the development of the Irish short story from its roots in the Gaelic story-telling tradition and its origins as a literary form in the 19th century, in stories by such writers as James Joyce, Frank O'Connor, Elizabeth Bowen, Sean O'Faolain, Mary Lavin, Edna O'Brien, William Trevor, Ellis Ni Dhuibhne, and Bernard MacLaverty. Students discuss the narrative strategies used to explore various versions of Irish identity.

NOTE: Students have received credit for this topic under an ENGL 359 or IRST 398 number may not take this course for credit.

ENGL 357 *The Irish Literary Revival* (3 credits)

This course traces the origins and nature of the extraordinary literary renaissance that occurred in Ireland from the 1880s to the 1920s. It examines issues such as the rise of Irish cultural nationalism and the concomitant turn to Ireland's past, both mythic and historic, as well as the continuing influence of the Catholic Church and the British state. Writers studied include W.B. Yeats, Lady Gregory, J.M. Synge, James Joyce, and Sean O'Casey.

ENGL 358 *Emigrants and Immigrants: Writing the Irish Diaspora* (3 credits)

This course examines various forms of literary expression — novels, stories, poems, and life-writing (memoirs, autobiographies, letters) — from Ireland and the Irish Diaspora that address the experience of emigration, settlement, and integration of Irish migrants in various countries around the world. Issues explored include concepts of diasporic and transnational identities; the negotiation of forms of self-understanding and self-transformation in the context of hybridity, fluidity, and multiplicity; and the roles of landscape, memory, and cultural production as determining factors in the competing hegemonies of homeland and diaspora. A selection of texts by writers from Ireland (Brian Friel, Joseph O'Connor, Eavan Boland), Canada (D'Arcy McGee, Brian Moore, Jane Urquhart), America (William Kennedy, Alice McDermott, Maeve Brennan), England (Patrick MacGill, Elizabeth Bowen, William Trevor) and Australia (Thomas Keneally, Vincent Buckley) is explored. A selection of letters, diaries, and personal reflections by Irish immigrants is also studied.

NOTE: Students have received credit for this topic under an ENGL 359 number may not take this course for credit.

ENGL 359 *Studies in Irish Literature* (3 credits)

This course examines selected subjects in the history of Irish literature. Specific topics and prerequisites for this course are stated in the Undergraduate Class Schedule.

ENGL 360 *American Literature* (6 credits)

A survey of American literature from the colonial period into the 20th century. Readings are drawn from such writers as Bradstreet, Emerson, Thoreau, Poe, Hawthorne, Melville, Whitman, Dickinson, Twain, James, Douglass, Chopin, Fitzgerald, and Faulkner.

ENGL 361 *American Literature before 1800* (3 credits)

This course concentrates on American Colonial literature from the early Puritan settlements to the aftermath of the Revolution, drawing on the works of such writers as Bradford, Rowlandson, Taylor, Franklin, Paine, and Jefferson.

NOTE: Students who have received credit for ENGL 361N may not take this course for credit.

ENGL 362 *American Literature 1800-1865* (3 credits)

This course focuses on American writing from shortly after the Revolution to after the Civil War, tracing the development of an American literary tradition through the works of such authors as Irving, Emerson, Hawthorne, Melville, Stowe, Douglass, Whitman, and Dickinson.

NOTE: Students who have received credit for ENGL 362N may not take this course for credit.

ENGL 363 *American Literature 1865-1914* (3 credits)

This course traces American literature from the conclusion of the Civil War until World War I, examining such authors as Twain, James, Harte, Jewett, Crane, DuBois, and Wharton.

NOTE: Students who have received credit for ENGL 363N may not take this course for credit.

ENGL 364 *American Literature from 1914 to Mid-20th Century* (3 credits)

This course traces American realism, modernism, and regionalism from World War I until the mid-20th century, emphasizing such writers as Cather, Frost, Stevens, Williams, Moore, Toomer, Faulkner, Fitzgerald, Hemingway, Welty, and Ellison.

NOTE: Students who have received credit for ENGL 364N may not take this course for credit.

ENGL 365 *American Literature from Mid- to Late-20th Century* (3 credits)

This course considers developments in American literature since World War II through the work of such writers as Plath, Bishop, Baldwin, O'Connor, Bellow, Nabokov, Pynchon, Updike, Oates, Morrison, Barthelme, and Walker.

ENGL 366 *The American Novel* (3 credits)

This course concentrates on the American novel from its early emergence, through its experimental and sentimental periods, to its present range of forms, examining the works of such writers as Brockden Brown, Cooper, Stowe, James, Stein, Faulkner, Wright, Morrison, Updike, and Sorrentino.

NOTE: Students who have received credit for ENGL 366N may not take this course for credit.

ENGL 367 *American Poetry* (3 credits)

This course considers the theory and practice of American poetry from the 19th century to the present through the work of such writers as Whitman, Dickinson, Frost, H.D., Pound, Stevens, Williams, Olson, Ginsberg, Waldman, Bishop, and Ashbery.

ENGL 368 African-American Literature to 1900 (3 credits)

This course traces the emergence of African-American literature, from early poetry and slave narratives to later autobiographies and novels, examining such writers as Wheatley, Turner, Douglass, Jacobs, Harper, Chesnutt, Washington, and DuBois.

NOTE: Students who have received credit for ENGL 368N may not take this course for credit.

ENGL 369 African-American Literature 1900 to Present (3 credits)

This course considers African-American literature from the renewal of southern segregation laws, through the Harlem Renaissance, the Civil Rights Movement, and contemporary writing, tracing the works of such writers as Toomer, Hurston, Hughes, Wright, Ellison, Giovanni, Reed, Walker, Dove, and Morrison.

ENGL 370 Canadian Literature (6 credits)

This course examines the development of Canadian literature from its beginnings to the present day through a series of representative works of prose and poetry, written in or translated into English.

ENGL 373 19th-Century Canadian Literature (3 credits)

This course studies the literature written in Canada in a variety of genres as the country evolved from colony to nation. It explores such topics as the relations among discourse, nation building, gender, and genre.

ENGL 374 Canadian Fiction to 1950 (3 credits)

This course studies the themes and technical strategies of Canadian fiction from the 1890s to the mid-20th century by such authors as Roberts, Montgomery, Leacock, Callaghan, Ross, MacLennan, Mitchell, and Smart.

ENGL 376 Postwar Canadian Fiction (3 credits)

This course studies Canadian fiction from 1950 through the mid-1960s as it incorporates the lyrical and the documentary, the universal and the regional, the traditional and the experimental. Authors may include Roy, Wilson, Buckler, MacLennan, Watson, Wiseman, Cohen, and Richler.

ENGL 377 Contemporary Canadian Fiction (3 credits)

This course studies the continuity and development of Canadian fiction from the mid-1960s to the present. Authors may include Laurence, Davies, Carrier, Wiebe, Atwood, Munro, Kogawa, Shields, Gallant, and Ondaatje.

ENGL 378 Modern Canadian Poetry (3 credits)

This course examines the changes in Canadian poetry from the beginning of the 20th century to the mid-1960s by such authors as Pratt, Klein, Scott, Livesay, Birney, Page, Layton, Purdy, and Avison.

ENGL 379 Contemporary Canadian Poetry (3 credits)

This course examines the development of Canadian poetry from the mid-1960s to the present by such authors as Atwood, Ondaatje, Nichol, MacEwan, Kroetsch, Webb, Kogawa, Dewdney, and Brand.

NOTE: Students who have received credit for ENGL 379N may not take this course for credit.

ENGL 380 First Nations/North American Native Literature (3 credits)

This course studies the native literature of Canada and/or the United States, from oral performance traditions, transcriptions and translations into English, and writing in English by such authors as Johnston, Campbell, King, Highway, Momaday, Erdrich, Allen, and Silko.

ENGL 381 Literature of Ethnic America (3 credits)

This course examines questions of ethnicity in American literature, challenging what Crevecoeur described in the 18th century as the melting pot from the perspective of such writers as Cahan, (Henry and Philip) Roth, Baldwin, Cisneros, Kingston, Silko, Tan, and Hosseini.

ENGL 382 Postcolonial Literature (3 credits)

This course offers a historical and theoretical introduction to literature in English from formerly colonized regions. The course examines a selection of texts — from regions such as Africa, South Asia, and the Caribbean — that address such issues as the spread of English through British colonial contact and the development of writing in English both during and after the colonial period.

ENGL 383 African Literature (3 credits)

This course considers how literature in English by writers from sub-Saharan Africa is embedded in the history and experience of colonization and decolonization. The course includes such authors as Achebe, Soyinka, Saro-Wiwa, Emecheta, Okri, Armah, Aidoo, Farah, Dangarembga, Coetzee, and Gordimer. The focus is on the political and aesthetic issues raised by African writing in English.

ENGL 384 Creative Writing: Playwriting (6 credits)

Prerequisite: Enrolment in a Creative Writing program and ENGL 227 or permission of the Department. Through reading of contemporary playwrights and intensive discussion and analysis of submitted work, this workshop helps students refine their skills in the process of completing a fully formed one-act play.

NOTE: Students who have received credit for ENGL 344 or 427 may not take this course for credit.

ENGL 385 *Studies in Postcolonial Literature* (3 credits)

This course examines selected subjects in the field of postcolonial literature. Specific topics and prerequisites for this course are stated in the Undergraduate Class Schedule.

ENGL 386 *Caribbean Literature* (3 credits)

This course explores how Caribbean literature in English from nations such as Barbados, Trinidad, Antigua, Jamaica, Grenada, St. Lucia, and Guyana is implicated in the history of slavery, colonialism, and postcolonialism. The work of such authors as Bennett, Walcott, Brathwaite, Goodison, James, Selvon, Lamming, Naipaul, Brodber, Cliff, and Kincaid is examined in relation to the writers' socio-cultural contexts and to the political and aesthetic issues raised by their texts.

ENGL 387 *South Asian Literature* (3 credits)

This course studies literature from South Asia written in English by authors from India, Pakistan, Bangladesh, and Sri Lanka, such as Rushdie, Anand, Das, Narayan, Ghosh, Desai, Chaudhuri, Markandaya, Sahgal, Selvadurai, Sidhwa, Rao, and Mistry. The focus is on the significance of precolonial, colonial, and postcolonial socio-cultural concerns as expressed in a variety of literary genres. Attention is given to English as a tool of colonization as well as a means for critiquing cultural hegemony.

ENGL 388 *Literature from Australia and New Zealand* (3 credits)

This course examines literature in English from Australia and New Zealand by such writers as White, Malouf, Jolley, Carey, Stead, Mudrooroo, Stow, Johnson, Frame, Hulma, Wedde, and Kenneally. Central to the course is a discussion of the impact of colonialism, and the ongoing relationship between settler and aboriginal communities as it inflects a variety of literary genres. Literature from the Pacific islands may also be considered.

NOTE: Students who have received credit for ENGL 388N may not take this course for credit.

ENGL 389 *History of Criticism and Literary Theory* (3 credits)

This course surveys and contrasts major theories of criticism, with attention to methodologies and historical contexts. Texts are chosen from such representative theorists as Plato, Aristotle, Augustine, Lessing, Bakhtin, and in English Sidney, Dryden, Johnson, Coleridge, Arnold, Eliot, Woolf, Empson, Burke, and Frye.

ENGL 390 *Studies in Rhetoric* (3 credits)

This course offers an inquiry into the nature and function of rhetoric, the art of convincing others, through an examination of such influential classical writers as Aristotle, Cicero, and Quintilian, as well as the place of rhetoric in contemporary critical discourse. This course offers, through written exercises, practical experience in the development of rhetorical techniques.

NOTE: Students who have received credit for ENGL 390N may not take this course for credit.

ENGL 391 *Studies in Literature and Science* (3 credits)

This course compares the modes of description, investigation, and analysis in science and literature as reflections of the division of modern knowledge into the arts and sciences. How have scientific discoveries enriched or impoverished literature or critical thinking? How have literary texts represented science and the scientist? In what ways has scientific investigation been informed by literature? How does the comparison with science make it possible to explore and question the methodologies that have been developed from the study of literature? The course may focus on such topics as the development of the microscope, the telescope, evolutionary theory and neuroscience.

NOTE: Students who have received credit for this topic under an ENGL 326 number may not take this course for credit.

ENGL 392 *Aspects of Criticism and Literary Theory* (3 credits)

This course examines selected subjects in criticism and literary theory.

ENGL 393 *Gender and Sexuality in Literary Studies* (3 credits)

This course examines the development of the terms "gender" and "sexuality" as categories of historical analysis and literary interpretation by reading feminist and queer theories of gender and sexuality such as those of Rubin, Butler, Sedgwick, and Foucault alongside a range of historical and contemporary literary texts.

NOTE: Students who have received credit for ENGL 445 may not take this course for credit.

ENGL 394 *Contemporary Critical Theory* (3 credits)

This course introduces students to various interpretive strategies in contemporary critical theory, through a study of such topics as structuralism, narratology, debates about genealogy, deconstruction, psychoanalytic theory, gender and performativity. Readings may include texts by Nietzsche, Saussure, Barthes, Foucault, Derrida, Eco, Austin, Cixous, and Sedgwick.

NOTE: Students who have received credit for ENGL 394N may not take this course for credit.

ENGL 395 *Technical Writing* (3 credits)

Prerequisite: ENGL 213. This course examines written and visual strategies for communicating information in technical fields. Practice includes experience in audience analysis and visual design in the preparation of such documents as technical abstracts, reports, proposals, descriptions, and instructional manuals.

NOTE: Students who have received credit for this course may not subsequently take ENGL 206–213 for credit.

ENGL 396 *Content Creation and Management in Professional Writing* (6 credits)

Prerequisite: ENGL 213 or placement test. This course is intended for students who have mastered the essentials of composition and who wish to develop their ability to write effectively for professional purposes. Emphasis is placed on creating content for different media platforms, working in teams, and managing writing projects.

NOTE: Students who have received credit for this course may not subsequently take ENGL 206–213 for credit.

ENGL 397 *Writing for Business* (3 credits)

Prerequisite: ENGL 213. This course examines strategies for communicating information in business contexts. Practice includes audience analysis and visual design in the creation of such business documents as letters, memos, minutes, brochures, press releases, and company newsletters.

NOTE: Students who have received credit for this course may not subsequently take ENGL 206–216 for credit.

ENGL 398 *Selected Topics in English* (3 credits)

ENGL 399 *Selected Topics in English* (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

ENGL 414 *Literary Publishing and Editing* (3 credits)

Prerequisite: Enrolment in a Creative Writing program and ENGL 225 or 226 or 227, or permission of the Department. This course explores the process of founding and operating small presses or magazines, and follows the creation of a book from manuscript to the marketplace. It includes accessing primary research materials; understanding how the writer and editor collaborate to arrive at the best possible literary text for publication; agents, copyright contracts and other essential issues for writers; understanding the parts of a book; the design and production values that make a good book; and the transition from print to digital.

NOTE: Students who have received credit for ENGL 413 may not take this course for credit.

ENGL 415 *Literary Production: Curating and Archiving the Literary Event* (3 credits)

Prerequisite: Enrolment in a Creative Writing program and ENGL 225 or 226 or 227, or permission of the Department. This course introduces contemporary modes of distributing literary production. Students conceive, implement, and manage all aspects of a reading series, including the development of a mandate, solicitation and review of materials, event organization, and the introduction of work online, verbally, and in print. Students also aid in the development and maintenance of a related blog and an archive of current and previous reading series.

NOTE: Students who have received credit for this topic under an ENGL 429 number may not take this course for credit.

ENGL 416 *The Solo Play* (3 credits)

Prerequisite: Enrolment in a Creative Writing program and ENGL 227 and ENGL 384, or permission of the Department. This focused workshop explores the nature, structure, and practice of writing solo works for the stage. A solo play is written for a single actor who may play one or more characters. It emphasizes the audience-performer communication while remaining fundamentally theatrical in its codes. By the end of the course, the student will have completed a 40- to 60-minute solo piece.

NOTE: Students who have received credit for this topic under an ENGL 429 number may not take this course for credit.

ENGL 417 *Writing for Media* (6 credits)

Prerequisite: Enrolment in a Creative Writing program and ENGL 227 and at least one 300-level creative writing class, or permission of the Department. This course is a creative writing workshop in the composition and development of scripts for media that may include film, TV, video games and podcasts. In any given year, the course focus is determined by the instructor.

NOTE: Students who have received credit for ENGL 411 may not take this course for credit.

ENGL 428 *Advanced Studies in Creative Writing* (6 credits)

Prerequisite: Enrolment in a Creative Writing program, or permission of the Department. See current Undergraduate Class Schedule for specific workshop prerequisites. This course is an advanced workshop intended for students who have completed at least six credits of workshops at the 300 or 400 level in an appropriate field. The subject and prerequisites for each year are found in the current Undergraduate Class Schedule. Submission of a brief portfolio may be required for admission.

ENGL 429 *Advanced Studies in Creative Writing* (3 credits)

Prerequisite: Enrolment in a Creative Writing program, or permission of the Department. See current Undergraduate Class Schedule for specific workshop prerequisites. This course is an advanced workshop intended for students who have completed at least six credits of workshops at the 300 or 400 level in an appropriate field. The subject and prerequisites for each year are found in the current Undergraduate Class Schedule. Submission of a brief portfolio may be required for admission.

ENGL 430 *Old English* (6 credits)

Prerequisite: Nine credits at the 300 level or permission of the Department. This course studies the language, literature, and culture of the Anglo-Saxon era, including such texts as elegaic lyrics and sections of *Beowulf*.

ENGL 432 *Middle English* (6 credits)

Prerequisite: Nine credits at the 300 level or permission of the Department. This course studies the variety of texts in English dialects from 1200 to 1500, including such works as *Sir Gawain and the Green Knight* and other romances, *Piers Plowman*, *Pearl*, the *Showings* of Julian of Norwich, other religious and social discourse, lyrics, and drama.

ENGL 433 *Gender and Sexuality in the Middle Ages* (3 credits)

This course investigates, through such discourses as literature, law, and natural philosophy, debates about misogyny and courtly love, virginity and chastity, marriage, reproduction, same-sex desire, and female autonomy. Works are selected from such writers as Chretien de Troyes, Langland, Heloise d'Argenteuil, Christine de Pizan, Margery Kempe, and Julian of Norwich.

ENGL 434 Advanced Studies in Early English Literature (3 credits)

Prerequisite: Nine credits at the 300 level or permission of the Department. This course is a seminar on a selected topic, text, or author.

ENGL 435 Women Writers of the Early Modern Period (3 credits)

Prerequisite: Nine credits at the 300 level or permission of the Department. This course examines the emergence into print of women writers from the late-16th to the late-17th centuries, by exploring such issues as the construction of literary history, histories of gender and sexuality, the relations between gender and genre. Works are chosen from such writers as Sidney, Sowernam, Wroth, Cary, Lanyer, Philips, Cavendish, Behn, Killigrew, Manley, and Trotter.

ENGL 436 Literature of the Civil War and Commonwealth Period (3 credits)

Prerequisite: Nine credits at the 300 level or permission of the Department. This course studies the prose and poetry of the 1630s through the 1650s. It explores the ways in which the Civil War was represented by such writers as Herrick, Suckling, Cowley, Bradstreet, Milton and Marvell. Political tracts, journalism, and private papers and diaries may also form part of the material of the course.

ENGL 437 Advanced Studies in Renaissance and Early Modern Writing (3 credits)

Prerequisite: Nine credits at the 300 level or permission of the Department. This course is a seminar on a selected topic, text, or author.

ENGL 438 History, Politics, and Literature in the 18th Century (3 credits)

Prerequisite: Nine credits at the 300 level or permission of the Department. This course examines the relations among the categories of history, politics, and literature, and their development as distinct discourses over the course of the century, through a study of such topics as the status of religion, the rise of science, the expansion of empire, the development of aesthetic discourse, and the construction of the category of the neoclassical.

ENGL 439 The Rise of Criticism and Literary History (3 credits)

Prerequisite: Nine credits at the 300 level or permission of the Department. This course traces the joint development of the discourses of literary criticism and literary history from 1660 to the legislation assigning copyright to authors in the late-18th century. Examples are drawn from such writers as Dryden, Dennis, Addison, Shaftesbury, Hume, and Johnson.

ENGL 440 Advanced Studies in Late-17th- and 18th-Century Writing (3 credits)

Prerequisite: Nine credits at the 300 level or permission of the Department. This course is a seminar on a selected topic, text, or author.

ENGL 441 Forms of 18th- and 19th-Century Fiction (3 credits)

Prerequisite: Nine credits at the 300 level or permission of the Department. This course may focus on a single writer, a type of fiction such as the gothic or the epistolary, or a particular issue in the development of the novel, such as realism or the emergence of women's fiction.

ENGL 442 Comparative 19th-Century Literature (3 credits)

Prerequisite: Nine credits at the 300 level or permission of the Department. This course studies literary developments in the United Kingdom, the United States, and Canada, including such issues as Romanticism, the development of national literatures, conceptions of place and landscape, and responses to cultural change.

ENGL 443 Advanced Studies in 19th-Century Literature (3 credits)

Prerequisite: Nine credits at the 300 level or permission of the Department. This course is a seminar on a selected topic, text, or author.

ENGL 444 Advanced Studies in Gender and Sexuality (3 credits)

Prerequisite: Nine credits at the 300 level or permission of the Department. This course is a seminar in the study of theories of gender and sexuality as they can be used in the interpretation of historical and/or contemporary texts.

NOTE: Students who have received credit for ENGL 445 may not take this course for credit.

ENGL 446 Advanced Studies in 20th-Century Writing (3 credits)

Prerequisite: Nine credits at the 300 level or permission of the Department. This course is a seminar on a selected topic, text, or author.

ENGL 447 Advanced Studies in Literary Theory (3 credits)

Prerequisite: Nine credits at the 300 level or permission of the Department. This course is a seminar on a selected topic, text, or author.

ENGL 449 The American Postmodern (3 credits)

Prerequisite: Nine credits at the 300 level or permission of the Department. This course focuses on postmodern American writers in the context of the critical debates about what constitutes the postmodern: formally, generically, and politically. It considers such writers as Antin, Ashbery, Waldman, Pynchon, Barthelme, Barth, Acker, Ford, and Morrison.

ENGL 450 *Advanced Studies in American Literature* (3 credits)

Prerequisite: Nine credits at the 300 level or permission of the Department. A seminar on a selected topic, text, or author. Specific content varies from year to year.

ENGL 451 *History and Ideology in Canadian Literature* (3 credits)

Prerequisite: Nine credits at the 300 level or permission of the Department. This course studies the treatment in Canadian literature of such historical and political events, issues, and ideologies as the Conquest, the railroad, the threat of American domination, immigration, and the Canadian west.

ENGL 452 *Recent Experiments in Canadian Writing* (3 credits)

Prerequisite: Nine credits at the 300 level or permission of the Department. This course studies contemporary writing that breaks with or interrogates traditional literary genres and forms. Examples are drawn from such authors as Kroetsch, Marlatt, Ondaatje, Highway, Dewdney, Mouré, and Nichol.

ENGL 453 *Advanced Studies in Canadian Writing* (3 credits)

Prerequisite: Nine credits at the 300 level or permission of the Department. This course is a seminar on a selected topic, text, or author.

ENGL 454 *Advanced Studies in Postcolonial Writing* (3 credits)

Prerequisite: Nine credits at the 300 level or permission of the Department. This course is a seminar on a selected topic, text, or author.

ENGL 455 *The American Nation* (3 credits)

Prerequisite: Nine credits of English literature at the 300 level or permission of the Department. This course focuses on such issues in American literature as the cosmopolitan, the regional, the local, and the transnational, exploring the theoretical and literary ways in which writers enshrine, consolidate, or call into question ideas of the American nation.

ENGL 470 *Honours Seminar* (3 credits)

Prerequisite: Enrolment in Honours English Literature and 30 credits in English. The topic of this course varies from year to year. The course provides the opportunity for final-year honours students to apply their experience of literature, literary theory, and criticism on a more advanced level.

NOTE: In consultation with the honours/majors advisor, honours students may substitute another course at the 400 level for ENGL 470.

ENGL 474 *Honours Essay* (3 credits)

Prerequisite: Enrolment in Honours English Literature and 30 credits in English. With the permission of the Department, an honours student may arrange a tutorial program with a faculty member, culminating in the writing of a long paper.

ENGL 480 *Independent Studies* (3 credits)

Prerequisite: Enrolment in an English program and nine credits at the 300 level. With the permission of the Department, a student may arrange a tutorial program with a faculty member.

ENGL 486 *SLS-International Literary Seminars* (3 credits)

Prerequisite: Permission of the coordinator of Creative Writing, or designate. This course, held at one of several locations around the world in conjunction with Summer Literary Seminars (SLS), offers intensive workshops in the writing of fiction, poetry, or drama, and includes discussion and written criticism of students' work and a series of lectures. Students are expected to read widely and to submit their own work for discussion and analysis. Grading is based on participation, and on submission of a final portfolio and an essay.

ENGL 490 *Joint Tutorial in History and English* (6 credits)

Prerequisite: Enrolment in an English program or nine credits in English Literature. A tutorial for students in an English and History Joint Specialization program.

ENGL 498 *Advanced Topics in English* (3 credits)

ENGL 499 *Advanced Topics in English* (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

Corps professoral

Directeur

DENIS LIAKIN, PhD *University of Western Ontario; Professeur titulaire*

Professeures et professeurs titulaires

PAUL BANDIA, PhD *Université de Montréal*

PIER-PASCAL BOULANGER, PhD *Université de Montréal*

PHILIPPE CAIGNON, PhD *Université de Montréal; Provost's Distinction*

SYLVAIN DAVID, PhD *Université du Québec à Montréal*

BENOIT LÉGER, PhD *McGill University*

PATRICK LEROUX, PhD *Université de Paris III – Sorbonne nouvelle; Provost's Distinction*

SOPHIE MARCOTTE, PhD *McGill University*

FRANÇOISE NAUDILLON, PhD *Université de Cergy-Pontoise*

GENEVIÈVE SICOTTE, PhD *Université de Montréal*

SHERRY SIMON, PhD *Université de Montréal; Provost's Distinction*

JUDITH WOODSWORTH, PhD *McGill University*

Professeures et professeurs agrégés

DAVY BIGOT, PhD *Université du Québec à Montréal*

DEBORAH FOLARON, PhD *Binghamton University*

ADEL JEBALI, PhD *Université du Québec à Montréal*

DIANE QUERRIEN, PhD *Université Laval*

NATALIA TEPLLOVA, PhD *McGill University*

Chargées et chargés d'enseignement

SVETLA KAMENOVA, MA *Université de Genève, MA Sofia University*

DANIÈLE MARCOUX, PhD *Université de Montréal*

FABIEN OLIVRY, MA *Université de Franche-Comté, Besançon*

CHRISTINE YORK, PhD *University of Ottawa*

For the complete list of faculty members, please consult the Department website.

Localisation

Campus Sir George Williams

J.W. McConnell, Salle : LB 601

514-848-2424, ext. 7500/7509

Objectifs du département

L'appellation Études françaises reflète le concept pluridisciplinaire sur lequel se fondent les deux volets de notre mission universitaire : l'enseignement et la recherche. La recherche pure et appliquée se pratique dans les domaines les plus variés de la discipline en étroite liaison avec l'enseignement. De plus, nous participons à la vie intellectuelle et professionnelle de la collectivité, à l'échelle nationale et internationale.

Le Département d'études françaises a une double vocation. Il offre d'une part de solides programmes de langue, littérature et traduction aux étudiantes et étudiants qui viennent y chercher une formation spécialisée. Il joue d'autre part un rôle capital au sein de l'Université en offrant un vaste éventail de cours de langue, linguistique, littérature et civilisation aux étudiantes et étudiants qui souhaitent compléter la formation qu'elles ou ils reçoivent dans d'autres départements.

Programmes

Il appartient à chaque étudiante et étudiant de remplir toutes les conditions requises dans son programme. L'exposant 3 ou 6 indique le nombre de crédits.

N.B. : Chaque candidate et candidat aux programmes de traduction doit inclure à son dossier une lettre d'intention rédigée dans sa langue principale.

N.B. : Avant de s'inscrire, les étudiantes et étudiants devront faire approuver leur programme par un membre désigné du département.

NOTE: FRENCH AS A SECOND LANGUAGE

All students not admitted into a program in the Département d'études françaises are required to consult the Études françaises website for the placement test (which is also available at the Department) in order to determine the level of elective French courses for which they can obtain credit. If in doubt call the French Department at 514-848-2424, ext. 7500 or 7518.

FRAN 211 is restricted to students with no previous training in French. FRAN 212 is designed to follow FRAN 211, or may be taken if students have little previous training in French. FRAN 211 and 212 are not intended for students who have attended high school in Quebec.

NOTE: Some students with previous French language background are restricted to certain levels of French language courses at Concordia. These restrictions are indicated as "exemptions" on the student record. Apart from any exemptions which may have been granted to undergraduate students, the following restrictions apply to ALL students:

1) Students who have completed any 602-900-level Cegep courses or who have graduated from Francophone secondary institutions may obtain a maximum of six credits in the range of FRAN 301-321 at Concordia. No credit is awarded for language courses numbered FRAN 211-221.

2) Students who have completed any 601-series Cegep courses or who have attended a Francophone Cegep may ONLY obtain credits for Concordia French Language courses at the 400 level (FRAA 400-498). No credit is awarded for language courses numbered 211-221 or 301-321.

THE DEPARTMENT RESERVES THE RIGHT TO TRANSFER A STUDENT TO A HIGHER- OR LOWER-LEVEL LANGUAGE COURSE IF IT IS DEEMED THAT THE COURSE FOR WHICH THE STUDENT HAS REGISTERED IS NOT APPROPRIATE FOR THE EXTENT OF HIS OR HER KNOWLEDGE OF THE LANGUAGE.

60 BA Spécialisation en langue française

- 45 crédits à choisir parmi les cours FRAN 301⁶ (ou 302³ et 303³), 304³, 305³, 306³, 315³, 318³, 320³, 321³; FRAA de niveau 400 de langue ou de rédaction (FRAA 410³, 412³, 413³, 415³, 416³, 423³, 432³) ou de linguistique française (FRAA 400³, 401³, 403³, 404³, 405³, 419³, 422³)
12 crédits FLIT 300³, 302³, 305³, 308³
3 crédits à choisir parmi les cours FLIT de niveau 300

60 BA Spécialisation en littératures de langue française

- 12 crédits à choisir parmi les cours FRAA de niveau 400 de langue ou de rédaction (FRAA 410³, 412³, 413³, 415³, 416³, 423³, 432³) ou de linguistique française (FRAA 400³, 401³, 403³, 404³, 405³, 419³, 422³)
12 crédits FLIT 300³, 302³, 305³, 308³
36 crédits à choisir parmi les cours FLIT de niveaux 300 et 400

69 BA Spécialisation en traduction

- N.B. : 1. Le BA Spécialisation en traduction est un programme contingenté. Comme il demande une excellente connaissance du français et de l'anglais, les étudiantes et étudiants admis devront subir des tests de placement dans les deux langues. Les cours FTRA sont réservés en priorité aux étudiantes et étudiants inscrits dans les programmes de traduction.
2. Le programme comporte deux options : la traduction du français vers l'anglais ou de l'anglais vers le français. Normalement, l'étudiante ou l'étudiant choisira l'une ou l'autre de ces deux options. Dans de rares cas, certaines candidates et certains candidats pourront satisfaire aux exigences des deux options.
3. Les étudiantes et étudiants du programme de BA Spécialisation en traduction doivent obtenir une note minimale de C dans tous les cours de traduction. Si la note obtenue est inférieure à C, les étudiantes et étudiants devront reprendre le cours dans l'année qui suit. Une seule reprise est permise. Si cette exigence n'est pas satisfaite ou en cas d'échec, les étudiantes et étudiants seront radiés du programme. En cas de probation ou de radiation, les étudiantes et étudiants recevront un avis écrit de la direction du département.
4. Les étudiantes et étudiants inscrits à un programme de traduction doivent remettre leurs travaux en français dans les cours de littérature.
5. Pour l'option d'enseignement coopératif, voir Programme d'enseignement coopératif en traduction.
6. Comme le BA Spécialisation en traduction comporte 69 crédits, les étudiantes et étudiants du programme doivent obtenir 21 crédits hors département (plutôt que les 24 crédits indiqués à la section Degree Requirements).

Option A : français-anglais

1^{re} étape

- 6 crédits à choisir parmi les cours FRAA 410³, 412³ ou 413³

N.B. : Une étudiante ou un étudiant qui, à l'examen d'admission, n'a pas obtenu une note lui permettant de suivre les cours de niveau 400 peut s'inscrire au(x) cours FRAN 301⁶ ou 302³ et 303³, ou 304³, ou 306³ ou 321³ et suivre les cours ci-dessus en 2^e année au plus tard.

- *6 crédits ENGL 212³ et 213³ ou 396⁶

- 6 crédits à choisir parmi les cours FLIT de niveaux 300 et 400

- 6 crédits en littératures de langue anglaise. Le cours ENGL 270 Introduction to Canadian Literature n'est pas reconnu pour des crédits de littérature anglaise dans le cadre des programmes en traduction.

- 9 crédits FTRA 200³, 201³ et 207³

2^e étape

- 15 crédits FTRA 203³, 301³, 305³, 310³ et 411³

- 6 crédits de linguistique choisis en consultation avec la conseillère pédagogique ou le conseiller pédagogique
- 3^e étape*
- 6 crédits à choisir parmi les cours FTRA 401³, 403³, 405³, 408³
- 3 crédits FTRA 409³
- 3 crédits à choisir entre les cours FTRA 412³, 414³ et 418³
- 3 crédits à choisir parmi FTRA 416³, 438³, 452³, 455³, 458³

Option F : anglais-français

1^e étape

- 6 crédits à choisir parmi les cours FRAA 410³, 412³, 413³, 423³, 432³
- *6 crédits ENGL 212³ et 213³ ou 396⁶

N.B. : Une étudiante ou un étudiant qui n'est pas admissible au cours ENGL 212³ peut s'inscrire aux cours ESL 204⁶ ou ENGL 206³ et suivre les cours ENGL 212³ et 213³ en 2^e année au plus tard.

- 9 crédits à choisir parmi les cours FLIT de niveaux 300 et 400
- 3 crédits à choisir parmi les cours de littérature de langue française FLIT 447³ ou 449³, ou le cours FRAA 423³
- 9 crédits FTRA 200³, 202³ et 208³
- 2^e étape*
- 15 crédits FTRA 204³, 304³, 306³, 310³ et 411³
- 6 crédits en linguistique à choisir entre FRAA 400³, 401³, 403³, 404³, 405³, 419³, 422³
- 3^e étape*
- 6 crédits à choisir parmi les cours FTRA 402³, 404³, 406³, 408³
- 3 crédits FTRA 410³
- 3 crédits à choisir entre les cours FTRA 412³, 414³ et 418³
- 3 crédits à choisir parmi les cours FTRA 416³, 438³, 452³, 455³, 458³

**L'étudiante ou l'étudiant peut comptabiliser les 6 crédits d'ENGL 212³ et 213³ ou 396⁶ dans les 21 crédits à réaliser hors département. Dans ce cas, pour les remplacer il devra effectuer 6 crédits parmi ceux offerts au département.*

45 BA Majeure en langue française

- 36 crédits à choisir parmi les cours FRAN 306³, 321³; FRAA de niveau 400 de langue ou de rédaction (FRAA 410³, 412³, 413³, 415³, 416³, 423³, 432³) ou de linguistique française (FRAA 400³, 401³, 403³, 404³, 405³, 419³, 422³)
- 9 crédits à choisir parmi les cours FLIT 300³, 302³, 305³, 308³

45 BA Majeure en langue française (profil langue seconde/étrangère)

- 21 crédits à choisir parmi les cours FRAN 213⁶ (ou 214³ et 215³), 218³, 219³, 221³, 301⁶ (ou 302³ et 303³), 304³, 305³, 306³, 315³, 320³, 321³; FRAA 410³, 412³, 413³
- 6 crédits à choisir parmi les cours FLIT de niveau 200
- 18 crédits à choisir parmi les cours FRAN 318³, 320³, 321³; FRAA de niveau 400 de langue ou de rédaction (FRAA 410³, 412³, 413³, 415³, 416³, 423³, 432³) ou de linguistique française (FRAA 400³, 401³, 403³, 404³, 405³, 419³, 422³)

45 BA Majeure en littératures de langue française

- 15 crédits à choisir parmi les cours FRAN 306³, 321³; FRAA de niveau 400 de langue ou de rédaction (FRAA 410³, 412³, 413³, 415³, 416³, 423³, 432³) ou de linguistique française (FRAA 400³, 401³, 403³, 404³, 405³, 419³, 422³)
- 9 crédits à choisir parmi les cours FLIT 300³, 302³, 305³, 308³
- 21 crédits à choisir parmi les cours FLIT de niveaux 300 et 400

45 BA Majeure en littératures de langue française (profil langue seconde/étrangère)

- 18 crédits à choisir parmi les cours FRAN 213⁶ (ou 214³ et 215³), 218³, 219³, 221³, 301⁶ (ou 302³ et 303³), 304³, 305³, 306³, 315³, 320³, 321³; FRAA 410³, 412³, 413³, 415³, 416³
- 6 crédits à choisir parmi les cours FLIT de niveau 200
- 9 crédits à choisir parmi les cours FLIT 300³, 302³, 305³, 308³
- 12 crédits à choisir parmi les cours FLIT de niveaux 300 et 400

48 BA Majeure en traduction

Les étudiantes et étudiants inscrits à un programme de traduction doivent remettre leurs travaux en français dans les cours de littérature.

1^e étape

- 6 crédits ENGL 212³ et 213³
- 6 crédits à choisir parmi les cours FRAN 301⁶ ou 302³ et 303³; FRAN 304³, 321³; FRAA 410³, 412³, 413³
- 2^e étape*
- 6 crédits à choisir parmi les cours FLIT de niveaux 300 et 400
- 6 crédits à choisir parmi les cours FRAN 306³ et 321³; FRAA 410³, 412³, 413³, 423³, 432³
- 9 crédits FTRA 200³, et FTRA 201³ et 207³ ou FTRA 202³ et 208³
- 3^e étape*
- 6 crédits à choisir parmi les cours FTRA 203³ ou 204³, 301³ ou 304³, 305³ ou 306³, 310³, 403³ ou 404³, 405³ ou 406³, 408³
- 3 crédits à choisir parmi les cours FTRA 412³, 414³ et 418³
- 6 crédits en littérature anglaise

- 24 Mineure en langue française
- 24 crédits de langue, dont un maximum de 12 crédits FRAN de niveau 200, choisis dans un ordre accepté par le département, parmi les cours suivants :
- Un maximum de 18 crédits à choisir parmi les cours FRAN 213⁶, 214³, 215³, 218³, 219³, 221³, 301⁶, 302³, 303³, 304³, 305³, 306³, 318³, 320³, 321³; FLIT 240³
 - Un minimum de six crédits à choisir parmi les cours FRAN 321³; FRAA de niveau 400
- 24 Mineure en linguistique française
- 24 crédits FRAA 400³, 401³, 403³, 404³, 405³, 419³, 422³, 429³
- 24 Mineure en littératures de langue française
- 24 crédits en littératures de langue française choisis en consultation avec le département
- 30 Certificat en langue française**
- Ce programme est accessible soit aux vrais débutants soit à des personnes qui ont déjà une certaine connaissance du français. Dans les deux cas, il permettra d'accéder à un niveau relativement avancé de communication et d'expression en français.*
- 30 crédits FRAN, choisis à un niveau et dans un ordre acceptés par le département,
- 18 crédits FRAN 211⁶, 212⁶, 213⁶ (ou 214³ et 215³), 218³, 219³, 221³, 301⁶ (ou 302³ et 303³), 304³, 305³, 306³, 320³, 321³
 - 12 crédits FRAN 301⁶ (ou 302³ et 303³), 304³, 305³, 306³, 320³, 321³; FRAA 405³, 410³, 412³, 413³, 415³, 416³
- N.B. : Ce certificat exige normalement plus d'une année de scolarité.

Remarques d'ordre général :

- 1) Les principaux critères de classement sont la langue d'enseignement des études secondaires, les notes obtenues et les résultats du test de classement.
 - 2) Les étudiantes et les étudiants doivent remettre leurs travaux en français dans les cours de littérature du département.
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Programme d'enseignement coopératif en traduction

Directrice

DANIÈLE MARCOUX, Chargée d'enseignement

L'option d'enseignement coopératif est offerte uniquement aux étudiants qui ont d'abord été admis au programme « BA Spécialisation en traduction ». Le cursus universitaire de cette option est le même que celui du « BA Spécialisation en traduction ». Toutefois, en alternance avec leurs sessions d'études, les étudiants de l'option d'enseignement coopératif effectuent trois stages de formation en milieu professionnel.

Tout au long de leur formation, les étudiants de l'option d'enseignement coopératif reçoivent de l'encadrement personnel. Afin de conserver leur statut, ils doivent respecter les exigences de la Faculté des arts et des sciences ainsi que celles de l'Institut d'enseignement coopératif. La direction du programme d'enseignement coopératif en traduction joue un rôle d'intermédiaire entre les étudiants et les employeurs, ce qui implique également un étroit suivi sur le plan académique. Les étudiants intéressés par cette option sont priés de consulter la section §24 pour obtenir de plus amples renseignements.

Cours

Si une étudiante ou un étudiant s'inscrit à un cours de langue d'un niveau inférieur ou supérieur à ses connaissances, le département se réserve le droit de lui demander de s'inscrire à un cours d'un niveau plus approprié.

In cases where students are enrolled in language classes which do not match their linguistic skills, the Department reserves the right to advise them to transfer into a class at a more appropriate level.

Langue

- **Français langue seconde**

FRAN 211 French Language: Elementary (6 credits)

This course is restricted to students having no previous training in French. It includes a comprehensive introduction to the basic structures and vocabulary of French and should enable students to acquire an ability to speak and understand simple conversational French. Both oral and written aspects of the language are presented, with special emphasis on oral skills.

NOTE: Students who have received credit for FRAN 200 or FRAN 201 may not take this course for credit.

FRAN 212 French Language: Transitional Level (6 credits)

Prerequisite: FRAN 211 or equivalent. The aim of this course is to provide students who have studied either one year of French at the university or post-secondary level, or two years of French at the secondary level or equivalent, with an opportunity to improve their levels of comprehension and expression so that they will be able to communicate with greater ease in written and oral French. Students will expand their repertory of linguistic structures and vocabulary through in-class directed conversation groups, homework, oral lab, and written exercises.

FRAN 213 *Langue française : niveaux intermédiaires I et II* (6 crédits)

Préalable : FRAN 212 ou l'équivalent. Ce cours s'adresse aux étudiantes et étudiants ayant suivi soit quatre ans de français à l'école secondaire, soit deux ans de français au niveau collégial, soit 12 crédits de français à l'université, ou l'équivalent. Par un apprentissage et approfondissement de mécanismes grammaticaux, du vocabulaire, de techniques de compréhension et production écrites et orales, l'étudiant sera amené à développer les compétences nécessaires pour communiquer avec aisance en français.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 204 ou 205 ou 214 ou 215 ne peuvent obtenir de crédits pour ce cours.

FRAN 214 *Langue française : niveau intermédiaire I* (3 crédits)

Préalable : FRAN 212 ou l'équivalent. Ce cours s'adresse aux étudiantes et étudiants ayant suivi soit quatre ans de français à l'école secondaire, soit deux ans de français au niveau collégial, soit 12 crédits de français à l'université, ou l'équivalent. Par un apprentissage et approfondissement de mécanismes grammaticaux, du vocabulaire, de techniques de compréhension et production écrites et orales, l'étudiant sera amené à développer les compétences nécessaires pour communiquer avec aisance en français.
N.B. : Les étudiantes et étudiants qui ont suivi FRAN 204 ou 213 ne peuvent obtenir de crédits pour ce cours.

FRAN 215 *Langue française : niveau intermédiaire II* (3 crédits)

Préalable : FRAN 214 ou l'équivalent. Ce cours est la suite du FRAN 214. Il vise à donner à l'étudiant une plus grande aisance dans son utilisation du français oral et écrit. Les travaux prendront la forme d'exercices variés de grammaire, de vocabulaire, de compréhension et production de textes écrits, et d'interaction orale.

N.B. : Les étudiantes et étudiants qui ont suivi FRAN 205 ou 213 ne peuvent obtenir de crédits pour ce cours.

FRAN 218 *Initiation au français oral* (3 crédits)

Préalable : FRAN 213 ou l'équivalent. Ce cours de niveau intermédiaire s'adresse à des étudiantes et à des étudiants qui ont une connaissance de base du français et qui désirent renforcer leur compétence en communication orale. Une démarche combinant compréhension auditive et expression orale permettra de développer aussi bien les habiletés à comprendre la langue parlée que l'aisance à prendre la parole.

FRAN 219 *Initiation au français écrit* (3 crédits)

Préalable : FRAN 213 ou l'équivalent. Ce cours de niveau intermédiaire s'adresse à des étudiantes et étudiants qui ont une bonne compétence en communication orale en français et qui désirent renforcer leur compétence en communication écrite. Il a principalement pour objectif d'amener les étudiantes et les étudiants à consolider leurs connaissances de la structure de la phrase de base et de ses transformations, et à enrichir leur vocabulaire. Les étudiantes et les étudiants seront également initiés à la composition de textes divers et à deux techniques d'expression : le plan et le résumé.

FRAN 221 *Correction phonétique* (3 crédits)

Préalable : FRAN 212 ou l'équivalent. Ce cours s'adresse à des étudiantes et des étudiants dont la langue maternelle n'est pas le français et qui souhaitent améliorer leur prononciation. Une approche systématique, qui combine des activités de perception et d'articulation allant des sons isolés à la phrase, leur permettra d'acquérir et de mettre en pratique les règles de la phonétique française (prononciation, liaison, intonation).

FRAN 298 *Étude d'un sujet particulier* (3 crédits)

Les préalables de ces cours, ainsi que les sujets particuliers qui y sont étudiés, sont indiqués dans le *Undergraduate Class Schedule*.

FRAN 301 *Langue française : niveaux d'approfondissement I et II* (6 crédits)

Préalable : FRAN 213 ou 215 ou l'équivalent. Ce cours d'approfondissement est destiné aux étudiantes et étudiants qui possèdent déjà une bonne connaissance du français mais qui ont besoin d'améliorer leur expression écrite et orale. Le cours est essentiellement axé sur la pratique de la lecture, sur la compréhension de textes et de documents audiovisuels, ainsi que sur la pratique de la grammaire et de la rédaction.

N.B. : Les étudiantes et étudiants qui ont suivi FRAN 302 ou 303 ne peuvent obtenir de crédits pour ce cours.

FRAN 302 *Langue française : niveau d'approfondissement I* (3 crédits)

Préalable : FRAN 213 ou 215 ou l'équivalent. Ce cours de français, niveau d'approfondissement I, est destiné aux étudiantes et étudiants qui possèdent déjà une bonne connaissance du français mais qui ont besoin d'améliorer leur expression orale et écrite. Le cours est essentiellement axé sur la pratique de la lecture, sur la compréhension de textes et de documents audiovisuels, ainsi que sur la pratique de la grammaire et de la rédaction.

N.B. : Les étudiantes et étudiants qui ont suivi FRAN 301 ne peuvent obtenir de crédits pour ce cours.

FRAN 303 *Langue française : niveau d'approfondissement II* (3 crédits)

Préalable : FRAN 302 ou l'équivalent. Ce cours de français, niveau d'approfondissement II, est destiné aux étudiantes et étudiants qui possèdent déjà une bonne connaissance du français mais qui ont besoin d'améliorer leur expression écrite et orale. Le cours est essentiellement axé sur la pratique de la grammaire et de la rédaction.

N.B. : Les étudiantes et étudiants qui ont suivi FRAN 301 ne peuvent obtenir de crédits pour ce cours.

FRAN 304 *Langue française : niveau d'approfondissement III* (3 crédits)

Préalable : FRAN 301 ou 303. Ce cours de français, niveau d'approfondissement III, est destiné aux étudiantes et étudiants qui possèdent déjà une bonne connaissance du français, mais qui ont besoin d'approfondir leur expression écrite et orale.

FRAN 305 *Communication orale* (3 crédits)

Préalable : FRAN 301 ou 303 ou l'équivalent. Ce cours s'adresse à des étudiantes et des étudiants non francophones qui souhaitent améliorer les aptitudes nécessaires à une communication orale efficace en français. Des présentations théoriques et des activités pratiques exploitant des situations de communication variées leur permettront d'acquérir une plus grande aisance et de mieux organiser leur discours. Des activités d'écoute basées sur des documents authentiques leur permettront d'augmenter leur capacité de compréhension en français.

FRAN 306 *Communication écrite* (3 crédits)

Préalable : FRAN 301, 303 ou l'équivalent. Acquisition des techniques nécessaires à la rédaction. Étude des différents styles de langue écrite par opposition à ceux de la langue parlée. Pratique de l'analyse et du commentaire de texte.

FRAN 315 *Correction phonétique (niveau avancé)* (3 crédits)

Préalable : FRAN 221, 301, 303 ou l'équivalent. Ce cours s'adresse à l'étudiante ou l'étudiant qui peut s'exprimer clairement du point de vue phonétique et qui désire acquérir une performance en prononciation. Le cours est essentiellement axé sur les particularités prosodiques et phonétiques du français. Une importance est également accordée à l'intonation expressive.

FRAN 318 *Le français des affaires* (3 crédits)

Préalable : FRAN 306 ou l'équivalent. Ce cours vise à faire acquérir des compétences nécessaires à une communication écrite et orale efficace dans des situations complexes du marché du travail. Les étudiantes et étudiants seront amenés à analyser et à rédiger divers documents administratifs (lettres, procès-verbaux, comptes rendus) ainsi qu'à communiquer oralement avec aisance dans le milieu des affaires. L'approfondissement des notions linguistiques et l'exploitation d'un vocabulaire relatif à la langue des affaires font aussi partie des objectifs du cours.

FRAN 320 *Le vocabulaire français* (3 crédits)

Préalable : FRAN 303 ou l'équivalent. Ce cours propose une présentation méthodique des divers aspects du vocabulaire français. Il comporte quatre parties : introduction générale et présentation des outils bibliographiques; origine et évolution des mots; procédés de création lexicale; variation sémantique. Les travaux prendront la forme d'exercices variés de vocabulaire, d'analyses de textes et de recherches lexicales.

N.B. : Avec le cours FRAN 306, ce cours constituerait une bonne préparation aux cours de langue de niveau 400.

N.B. : Les étudiantes et étudiants qui ont suivi FRAN 334 ne peuvent obtenir de crédits pour ce cours.

FRAN 321 *Grammaire fonctionnelle du français* (3 crédits)

Préalable : FRAN 304 ou 306; ou l'équivalent. Ce cours de mise à niveau s'adresse à l'étudiante ou l'étudiant qui, possédant déjà des connaissances approfondies en français, veut développer des automatismes de correction adaptés aux différents types de communication. Axé sur la compréhension et l'expression écrite et orale, il permettra à l'étudiante ou à l'étudiant d'atteindre une meilleure utilisation de la langue française.

FRAN 398 *Étude d'un sujet particulier* (3 crédits)

Les préalables de ces cours, ainsi que les sujets particuliers qui y sont étudiés, sont indiqués dans le *Undergraduate Class Schedule*.

- Linguistique française

FRAA 400 *Introduction à la linguistique française I* (3 crédits)

Préalables : FRAN 306 et 321 ou l'équivalent. Ce cours vise à initier l'étudiante ou l'étudiant à l'analyse descriptive de la structure linguistique du français contemporain. Il présente un aperçu des aspects phonémiques, morphosyntaxiques et lexicaux de la langue considérée comme un système. Outre les notions de base sur la linguistique générale, on y aborde les méthodes d'analyse phonétique, phonologique et morphologique du français.

N.B. : Les étudiantes et étudiants qui ont suivi FRAN 330 ne peuvent obtenir de crédits pour ce cours.

FRAA 401 *Introduction à la linguistique française II* (3 crédits)

Préalable : FRAA 400 ou l'équivalent. Suite du FRAA 400, ce cours vise à poursuivre l'étude du système linguistique du français contemporain. Outre les notions de base sur la sociolinguistique et la linguistique de l'énonciation, il traite des méthodes d'analyse syntaxique, lexicale et sémantique du français.

N.B. : Les étudiantes et étudiants qui ont suivi FRAN 331 ne peuvent obtenir de crédits pour ce cours.

FRAA 403 *Histoire de la langue française* (3 crédits)

Préalables : FRAA 400 ou 401 ou l'équivalent. Ce cours est une initiation à l'histoire interne et à l'histoire externe du français. On étudiera, d'une part, les origines de cette langue et ses transformations au cours des siècles, sur les plans phonétique, orthographique, morphologique, syntaxique, lexical et sémantique et, d'autre part, l'évolution de sa situation dans le monde comme langue maternelle, langue seconde, langue de culture.

N.B. : Les étudiantes et étudiants qui ont suivi FRAN 333 ne peuvent obtenir de crédits pour ce cours.

FRAA 404 *Histoire de la langue française au Québec* (3 crédits)

Préalables : Six crédits parmi FRAN 320, FRAN 321, FRAA 400, FRAA 401, FRAA 403 ou l'équivalent. Aperçu de l'évolution du français au Québec, du XVII^e siècle à nos jours. Étude de la formation du français québécois et des influences internes et externes

qu'il a subies au cours du temps. À l'aide de documents provenant d'époques successives, on s'attachera à définir ce qui caractérise les différents états du français parlé et écrit au Québec.

N.B. : Les étudiantes et étudiants qui ont suivi FRAN 466 ne peuvent obtenir de crédits pour ce cours.

FRAA 405 *Le code oratoire* (3 crédits)

Préalables : FRAN 321 ou l'équivalent. Ce cours avancé de langue vise à donner aux étudiantes et aux étudiants des connaissances sur les mécanismes en jeu dans la communication orale. Il porte sur les processus cognitifs impliqués dans la production et la compréhension du langage et sur la pragmatique, c'est-à-dire sur les aspects linguistiques du fonctionnement et de l'interprétation des énoncés en contexte. Il comporte également un volet pratique sur la création et la transmission de discours oraux universitaires : introduction à la rhétorique et création de discours informatifs et argumentatifs.

N.B. : Les étudiantes et étudiants qui ont suivi FRAN 404 ou 405 ou 408 ne peuvent obtenir de crédits pour ce cours.

FRAA 419 *Le français en Amérique du Nord, histoire et destins* (3 crédits)

Préalables : Six crédits parmi FRAN 320, FRAN 321, FRAA 400, 401, 403 ou l'équivalent. La présence de la langue française en sol nord-américain ne se limite pas au Québec, à l'Acadie et à la Louisiane. En effet, il existe plusieurs autres variétés de français parlées au Canada (le franco-ontarien, le franco-manitobain, le français mitchif ou encore le franco-albertain) et aux États-Unis (le français du Missouri, le franco-américain ou encore le franco-dakota). L'objectif de ce cours est d'offrir aux étudiantes et aux étudiants un portrait à la fois historique, sociolinguistique et culturel de ces nombreuses variétés nord-américaines du français.

FRAA 422 *Questions actuelles en linguistique française* (3 crédits)

Préalable : FRAN 321; trois crédits parmi FRAA 400, 401, 403, 404 ou l'équivalent. Ce cours propose l'étude d'un sujet particulier du domaine de la linguistique. Plus précisément, ce cours aborde des questions qui peuvent être rattachées au domaine de l'énonciation, de la sociolinguistique, des politiques linguistiques, du traitement automatique du langage ou d'autres domaines de recherche en linguistique. Des présentations théoriques, des ateliers d'observation ou des exercices d'application permettront à l'étudiante et à l'étudiant de mieux cerner la problématique abordée.

N.B. : Les étudiantes et étudiants qui ont suivi FRAN 471 ne peuvent obtenir de crédits pour ce cours.

FRAA 429 *Fondements en linguistique française* (3 crédits)

Préalable : FRAA 401 ou l'équivalent. Ce cours vise à approfondir les connaissances de l'étudiante et de l'étudiant dans les trois domaines fondamentaux de la linguistique française : la phonologie, la syntaxe et la morphologie.

• **Langue française**

FRAA 409 *Cours libre de traduction* (3 crédits)

Préalables : Six crédits parmi FRAN 306, FRAN 321, FRAA 410, FRAA 413; ou autorisation du département. Étude systématique des anglicismes; notions de méthodologie de la traduction; étude de quelques aspects de la stylistique comparée du français et de l'anglais; travaux pratiques de traduction de l'anglais au français.

N.B. : Ce cours est destiné particulièrement, mais non exclusivement, aux étudiantes et étudiants qui ne se spécialisent pas en traduction.

N.B. : Les étudiantes et étudiants qui ont suivi FRAN 409 ne peuvent obtenir de crédits pour ce cours.

FRAA 410 *Grammaire du français en contextes* (3 crédits)

Préalable : FRAN 321 ou l'équivalent. Ce cours vise le perfectionnement des connaissances grammaticales et l'acquisition d'une excellente compréhension du fonctionnement de la langue française en tant que système. En analysant des documents de diverses natures, en produisant des textes et en présentant des exposés oraux, l'étudiante et l'étudiant seront amenés à effectuer des choix langagiers adaptés à différents contextes de communication.

N.B. : Les étudiantes et étudiants qui ont suivi FRAN 406 ne peuvent obtenir de crédits pour ce cours.

FRAA 412 *Grammaire de texte* (3 crédits)

Préalable : FRAN 321. Ce cours de communication écrite vise l'approfondissement des connaissances de la structuration du texte. L'accent est mis sur l'acquisition des règles spécifiques de la grammaire du texte qui dépassent le cadre d'une grammaire de la phrase. Dans cette perspective seront abordés des éléments tels que la reprise lexicale et pronominal, les articulateurs textuels et le rôle des paragraphes. Différentes organisations textuelles seront également analysées et ce, dans une perspective élargie de communication écrite.

N.B. : Les étudiantes et étudiants qui ont suivi FRAN 407 ne peuvent obtenir de crédits pour ce cours.

FRAA 413 *Rédaction I* (3 crédits)

Préalable : FRAN 321 ou l'équivalent. Ce cours est destiné à l'étudiante ou à l'étudiant qui possède déjà une connaissance approfondie de la langue française. Il vise l'apprentissage des exigences méthodologiques propres aux travaux universitaires en abordant l'élaboration d'un plan et d'une bibliographie ainsi que la rédaction de textes informatifs et argumentatifs. Par le biais d'exercices de lecture, de rappels grammaticaux et d'ateliers de rédaction, l'étudiante ou l'étudiant pourra corriger ses lacunes et apprendre à nuancer son expression.

FRAA 415 *Français avancé I* (3 credits)

Préalable : FRAA 410. Ce cours est destiné à l'étudiante ou à l'étudiant qui souhaite, tant à l'écrit qu'à l'oral, développer une argumentation structurée et cohérente, mettre en œuvre des outils d'organisation, d'articulation et de cohésion du discours. Il vise

à permettre à l'étudiante ou à l'étudiant d'enrichir ses connaissances grammaticales et culturelles, de s'exprimer efficacement, d'argumenter de façon claire, de comprendre un large éventail de textes et discours longs ainsi que leur signification implicite.

FRAA 416 *Français avancé II* (3 crédits)

Préalable : FRAA 415. Ce cours constitue la suite du FRAA 415, français avancé I. Il est destiné à l'étudiante ou à l'étudiant qui souhaite, tant à l'écrit qu'à l'oral, développer une argumentation structurée et cohérente, mettre en œuvre des outils d'organisation, d'articulation et de cohésion du discours. Il vise à permettre à l'étudiante ou à l'étudiant d'enrichir ses connaissances grammaticales et culturelles, de s'exprimer efficacement, d'argumenter de façon claire, de comprendre un large éventail de textes et discours longs ainsi que leur signification implicite.

FRAA 423 *Rédaction II* (3 crédits)

Préalable : FRAA 413 ou l'équivalent. Ce cours vise l'approfondissement des compétences rédactionnelles par l'apprentissage de techniques de recherche documentaire et de synthèse textuelle, et par l'écriture de textes combinant ces techniques comme le compte rendu critique, le dossier ou le texte de vulgarisation.

N.B. : Les étudiantes et étudiants qui ont suivi FRAN 403 ne peuvent obtenir de crédits pour ce cours.

FRAA 432 *Écriture pour le Web* (3 crédits)

Préalables : FRAN 321 ou l'équivalent. Ce cours vise à familiariser l'étudiante ou l'étudiant aux techniques d'écriture pour le web et aux technologies associées à ce média. Il permettra de mieux comprendre ce que l'hypertexte et l'écrit sur support numérique impliquent du point de vue du traitement de l'information et des spécificités linguistiques et ergonomiques. Il vise à initier l'étudiante et l'étudiant à la création et à la traduction de pages et de sites web.

- Langue ou linguistique française

FRAA 491 *Tutorat en langue ou linguistique* (3 crédits)

Préalables : 12 crédits de langue ou de linguistique au niveau « 400 ». Étude d'un sujet particulier dans le domaine de la langue ou de la linguistique.

N.B. : Les étudiantes et étudiants qui ont suivi FRAN 491 ne peuvent obtenir de crédits pour ce cours.

FRAA 492 *Tutorat en langue ou linguistique* (3 crédits)

Préalables : 12 crédits de langue ou de linguistique au niveau « 400 ». Étude d'un sujet particulier dans le domaine de la langue ou de la linguistique.

FRAA 498 *Étude avancée d'un sujet particulier* (3 crédits)

Les préalables de ces cours, ainsi que les sujets particuliers qui y sont étudiés, sont indiqués dans le *Undergraduate Class Schedule*.

N.B. : Les étudiantes et étudiants qui ont suivi le même sujet sous le numéro FRAN 498 ne peuvent obtenir de crédits pour ce cours.

Littérature

- Français langue seconde/étrangère

FLIT 222 *Introduction à la littérature et à la culture françaises* (3 crédits)

Préalable : FRAN 301 ou 303 ou l'équivalent. Introduction à la littérature et à la culture françaises et à leurs spécificités historiques, sociales et linguistiques par la lecture et l'étude de quelques œuvres représentatives.

N.B. : Ce cours est réservé aux étudiantes et étudiants ayant effectué leurs études secondaires dans une langue autre que le français.

FLIT 232 *Introduction à la littérature et à la culture québécoises* (3 crédits)

Préalable : FRAN 301 ou 303 ou l'équivalent. Introduction à la littérature et à la culture québécoises et à leurs spécificités historiques, sociales et linguistiques par la lecture et l'étude de quelques œuvres représentatives.

N.B. : Ce cours est réservé aux étudiantes et étudiants ayant effectué leurs études secondaires dans une langue autre que le français.

FLIT 240 *Introduction aux littératures et aux cultures de la Francophonie* (3 crédits)

Préalable : FRAN 301 ou 303 ou l'équivalent. Introduction aux littératures et aux cultures de la francophonie et à leurs spécificités historiques, sociales et linguistiques par la lecture et l'étude de quelques œuvres représentatives.

N.B. : Ce cours est réservé aux étudiantes et étudiants ayant effectué leurs études secondaires dans une langue autre que le français.

FLIT 250 *Introduction aux cultures populaires de langue française* (3 crédits)

Préalable : FRAN 301 ou 303 ou l'équivalent. Introduction aux cultures populaires de langue française (littérature, cinéma, télévision, chanson) et à leurs spécificités historiques, sociales et linguistiques par la lecture et l'étude de quelques œuvres représentatives.

N.B. : Ce cours est réservé aux étudiantes et étudiants ayant effectué leurs études secondaires dans une langue autre que le français.

- Introduction aux littératures de langue française

FLIT 300 **Littérature et culture françaises du Moyen Âge au XVII^e siècle** (3 crédits)

Aperçu général de la littérature française du Moyen Âge, de la Renaissance et du XVII^e siècle, et des contextes historiques, sociaux et culturels qui permettent de mieux comprendre les œuvres.

FLIT 302 **Littérature et culture françaises du XVIII^e siècle à aujourd'hui** (3 crédits)

Aperçu général de la littérature française du XVIII^e siècle à aujourd'hui et des contextes historiques, sociaux et culturels qui permettent de mieux comprendre les œuvres.

FLIT 305 **Littérature et culture québécoises** (3 crédits)

Aperçu général de la littérature québécoise du début du XX^e siècle à aujourd'hui et des contextes historiques, sociaux et culturels qui permettent de mieux comprendre les œuvres.

FLIT 308 **Littératures et cultures de la Francophonie** (3 crédits)

Aperçu général des littératures francophones d'Afrique, du Maghreb et de la Caraïbe, et des contextes historiques, sociaux et culturels qui permettent de mieux comprendre les œuvres.

- Époques et aires culturelles

FLIT 310 **Littérature française du Moyen Âge** (3 crédits)

Étude de la littérature du Moyen Âge (chanson de geste, courtoisie, satire, lyrisme), de son contexte et de ses principales thématiques.

FLIT 312 **Littérature française de la Renaissance** (3 crédits)

Étude de la littérature du XVI^e siècle (humanisme, poètes de la Pléiade), de son contexte et de ses principales thématiques.

FLIT 314 **Littérature française du XVII^e siècle** (3 crédits)

Étude de la littérature du XVII^e siècle (baroque, classicisme), de son contexte et de ses principales thématiques.

FLIT 316 **Littérature française du XVIII^e siècle** (3 crédits)

Étude de la littérature du XVIII^e siècle (Lumières, libertinage), de son contexte et de ses principales thématiques.

FLIT 318 **Littérature française du XIX^e siècle I** (3 crédits)

Étude des principaux courants de la première moitié du XIX^e siècle (romantisme, réalisme) et de leurs principales thématiques telles que le lyrisme et les transformations sociales.

FLIT 319 **Littérature française du XIX^e siècle II** (3 crédits)

Étude des principaux courants de la seconde moitié du XIX^e siècle (réalisme, Parnasse, naturalisme, décadence, symbolisme) et de leurs principales thématiques telles que le progrès, la question sociale et le statut de la littérature.

FLIT 320 **Littérature française du XX^e siècle I** (3 crédits)

Étude des principaux courants de la première moitié du XX^e siècle (surréalisme, existentialisme, absurde) et de leurs principales thématiques telles que l'inconscient, la guerre, les extrêmes politiques et le relativisme philosophique.

FLIT 321 **Littérature française du XX^e siècle II** (3 crédits)

Étude des principaux courants de la seconde moitié du XX^e siècle (absurde, nouveau roman, Oulipo) et de leurs principales thématiques telles que le souvenir de l'Occupation, la société de consommation, la libéralisation des mœurs et la révolte de la jeunesse.

N.B. : Il n'est pas nécessaire d'avoir suivi FLIT 320 pour s'inscrire à ce cours.

FLIT 324 **Littérature française contemporaine** (3 crédits)

Étude des principaux courants contemporains (retour au réalisme, postmodernisme, autofiction) et de leurs principales thématiques telles que le néolibéralisme, le multiculturalisme, l'influence du numérique et la conscience historique.

N.B. : Les étudiantes et étudiants qui ont suivi FLIT 424 ne peuvent obtenir de crédits pour ce cours.

FLIT 339 **Littérature québécoise avant 1900** (3 crédits)

Étude de la littérature de la fondation de la Nouvelle-France à la fin du XIX^e siècle (écrits coloniaux, contes et légendes, roman historique, roman de colonisation, poésie patriotique), de son contexte et de ses principales thématiques.

N.B. : Les étudiantes et étudiants qui ont suivi FLIT 303 ne peuvent obtenir de crédits pour ce cours.

FLIT 341 **Littérature québécoise de 1900 à 1960** (3 crédits)

Étude des principaux courants de 1900 à 1960 (terroir, réalisme, roman psychologique) et de leurs principales thématiques telles que la survie, l'urbanisation et la quête identitaire.

FLIT 343 *Littérature québécoise de 1960 à 1980* (3 crédits)

Étude des principaux courants de 1960 à 1980 (nouveau roman, contreculture, écriture migrante) et de leurs principales thématiques telles que l'identité nationale et linguistique, la modernité, le féminisme.

FLIT 345 *Littérature québécoise de 1980 à aujourd'hui* (3 crédits)

Étude des principaux courants depuis 1980 (écriture migrante, postmodernisme, autofiction, néo-terroir) et de leurs principales thématiques telles que le désenchantement, l'américanité, l'hyperconsommation et le multiculturalisme.

FLIT 351 *Théâtre québécois* (3 crédits)

Étude du théâtre moderne et contemporain, de ses théories, de ses pratiques et des principaux axes de son développement comme le théâtre populaire, le réalisme, la critique sociale, les expérimentations formelles et l'autoréflexivité.

FLIT 362 *Littératures du Maghreb* (3 crédits)

Étude d'œuvres francophones significatives de l'Algérie, de la Tunisie et du Maroc en contexte colonial (interrogations identitaires, génération 54, revue souffles) et après les Indépendances (interrogations sociales, engagement et contestation politiques), de la littérature beure à la littérature-monde.

FLIT 363 *Littératures d'Afrique francophone* (3 crédits)

Étude d'œuvres significatives de quelques pays d'Afrique subsaharienne francophone en contexte colonial (la négritude) et postcolonial, des Indépendances à nos jours, du roman de la dictature au roman de la migritude.

N.B. : Les étudiantes et étudiants qui ont suivi FLIT 364 ne peuvent obtenir de crédits pour ce cours.

FLIT 365 *Littératures de la Caraïbe francophone* (3 crédits)

Étude d'œuvres significatives de la Guadeloupe, de la Martinique, de la Guyane, des courants littéraires auxquels elles appartiennent (négritude, antillanité, créolité, Tout-monde) et des enjeux contemporains de la création littéraire caribéenne.

N.B. : Les étudiantes et étudiants qui ont suivi FLIT 364 ne peuvent obtenir de crédits pour ce cours.

FLIT 367 *Littérature d'Haïti* (3 crédits)

Étude d'œuvres significatives d'Haïti de l'indépendance à nos jours et de courants littéraires comme le romantisme haïtien, l'indigénisme, le mouvement de La Nouvelle Ronde, la négritude et la littérature de la diaspora.

FLIT 371 *Littérature des femmes en France* (3 crédits)

Étude d'œuvres françaises de diverses époques écrites par des femmes et de leurs principales thématiques telles que l'affirmation identitaire, le rapport au social, le corps et le féminisme.

N.B. : Les étudiantes et étudiants qui ont suivi FLIT 472 ne peuvent obtenir de crédits pour ce cours.

FLIT 373 *Littérature des femmes au Québec* (3 crédits)

Étude d'œuvres québécoises de diverses époques écrites par des femmes et de leurs principales thématiques telles que l'affirmation identitaire, le rapport au social, le corps et le féminisme.

N.B. : Les étudiantes et étudiants qui ont suivi FLIT 471 ne peuvent obtenir de crédits pour ce cours.

FLIT 375 *Littérature des femmes de la Francophonie* (3 crédits)

Étude d'œuvres de différents pays francophones du sud écrites par des femmes et de leurs principales thématiques liées à différents contextes culturels, historiques et idéologiques, de la colonisation à la décolonisation, du féminisme au *womanism*.

N.B. : Les étudiantes et étudiants qui ont suivi FLIT 360 ne peuvent obtenir de crédits pour ce cours.

FLIT 398 *Étude d'un sujet particulier* (3 crédits)

Étude d'un sujet particulier dans le domaine des littératures de langue française. Le contenu spécifique du cours est indiqué dans le Undergraduate Class Schedule.

• **Thèmes et formes littéraires**

FLIT 402 *Littérature et culture populaires de la France* (3 crédits)

Analyse d'œuvres représentatives de la littérature et de la culture populaires de la France (par exemple, roman, théâtre, cinéma, télévision, chanson) et examen de leurs spécificités historiques, sociales et linguistiques.

N.B. : Les étudiantes et étudiants qui ont suivi FLIT 446 ne peuvent obtenir de crédits pour ce cours.

FLIT 404 *Littérature et culture populaires du Québec* (3 crédits)

Analyse d'œuvres représentatives de la littérature et de la culture populaires du Québec (par exemple, roman, théâtre, cinéma, télévision, chanson) et examen de leurs spécificités historiques, sociales et linguistiques.

N.B. : Les étudiantes et étudiants qui ont suivi FLIT 446 ne peuvent obtenir de crédits pour ce cours.

FLIT 406 *Littératures et cultures populaires de la Francophonie* (3 crédits)

Analyse d'œuvres représentatives des littératures et des cultures populaires de la Francophonie (par exemple, roman, théâtre, cinéma, télévision, chanson) et examen de leurs spécificités historiques, sociales et linguistiques.

N.B. : Les étudiantes et étudiants qui ont suivi FLIT 446 ne peuvent obtenir de crédits pour ce cours.

FLIT 411 *La bande dessinée* (3 crédits)

Analyse d'œuvres de bande dessinée et de roman graphique en français et étude des différents concepts qui permettent de théoriser les rapports entre texte et image (narration, scénarisation, ancrage, relais).

FLIT 413 *Le roman policier français* (3 crédits)

Analyse d'œuvres représentatives de la tradition du roman policier français (roman à énigme, roman noir, roman à suspense, néo-polar, polar contemporain) et examen de leurs spécificités historiques, sociales et linguistiques.

FLIT 415 *Les écritures scéniques* (3 crédits)

Analyse de formes émergentes et de stratégies dramaturgiques significatives des arts de la scène (théâtre, danse-théâtre, performance, cirque contemporain) visant à mettre en évidence ce qui s'écrit sur scène par la parole, le geste, l'image et la performance.

FLIT 431 *Littératures coloniales* (3 crédits)

Analyse d'œuvres littéraires francophones (Maghreb, Afrique subsaharienne) de la fin du XIX^e siècle aux années 1960, situation des enjeux politiques, historiques, sociaux et culturels qu'elles abordent, et examen de textes-clés des principaux penseurs et des mouvements anticoloniaux.

FLIT 433 *Littératures postcoloniales* (3 crédits)

Analyse d'œuvres littéraires francophones (Maghreb, Afrique subsaharienne) des Indépendances africaines à nos jours, situation des enjeux politiques, historiques, sociaux et culturels qu'elles abordent, et examen de textes-clés des théories postcoloniales.

FLIT 447 *Les voix de Montréal* (3 crédits)

Analyse d'œuvres littéraires qui ont pour sujet la ville de Montréal, son histoire, son présent, ses quartiers, ses habitants, ses langues, ses cultures, son ambiance et sa diversité, afin de mieux comprendre les représentations qui la caractérisent.

FLIT 449 *Littérature québécoise – Canadian Literature* (3 crédits)

Analyse comparée d'œuvres significatives des littératures québécoise et canadienne-anglaise visant à mettre en évidence leurs similitudes et leurs traits distinctifs à la lumière des contextes historiques, sociaux et culturels.

FLIT 464 *Littératures mondiales* (3 crédits)

Analyse d'œuvres significatives de la littérature-monde, en traduction française, qui ont eu un impact hors de leur contexte d'origine et qui reflètent des interrogations contemporaines.

FLIT 466 *Littératures des Amériques* (3 crédits)

Analyse d'œuvres littéraires des Amériques (Canada, États-Unis, Amérique latine), en français ou en traduction française, visant à mettre en évidence des enjeux liés à l'américanité, à la transculturalité et à l'hybridation.

FLIT 468 *Littératures autochtones* (3 crédits)

Analyse d'œuvres significatives des littératures autochtones en français ou en traduction française et examen des enjeux culturels, historiques, sociaux et linguistiques qu'elles mettent en évidence.

FLIT 470 *Littérature et cinéma* (3 crédits)

Analyse d'œuvres littéraires en français et de leur adaptation cinématographique, selon les caractéristiques respectives de l'expression écrite et du langage filmique, afin de comprendre la nature et les effets de la transposition.

FLIT 473 *Littérature et numérique* (3 crédits)

Analyse d'œuvres littéraires en français ou en traduction française, parues sous la forme de livre ou de dispositif hypermédia, qui témoignent des changements que le numérique entraîne dans les pratiques d'écriture et de lecture.

FLIT 476 *Littérature et musique* (3 crédits)

Analyse d'œuvres littéraires en français ayant la musique pour sujet, afin de comprendre la représentation thématique d'un univers musical (répertoire, sous-culture) et la transposition verbale d'un phénomène sonore.

FLIT 478 *Littérature et gastronomie* (3 crédits)

Analyse d'œuvres littéraires en français qui ont pour sujet l'alimentation (production, cuisine, consommation, rituels), à l'aide de notions liées au domaine des études gastronomiques (*food studies*), pour mieux comprendre les représentations du fait alimentaire.

FLIT 486 *Création littéraire I* (3 crédits)

Introduction aux pratiques et aux exigences de la création littéraire (forme, ton, rythme, lexique) par le biais de lectures et d'ateliers d'écriture.

N.B. : Les étudiantes et étudiants qui ont suivi FRAA 440 ne peuvent obtenir de crédits pour ce cours.

FLIT 488 *Création littéraire II* (3 crédits)

Préalable : FRAA 440 ou FLIT 486 ou l'équivalent. Approfondissement des pratiques et des exigences de la création littéraire (forme, ton, rythme, lexique) par le biais de lectures et d'ateliers d'écriture ainsi que par l'élaboration d'un projet individuel.

N.B. : Les étudiantes et étudiants qui ont suivi FRAA 441 ne peuvent obtenir de crédits pour ce cours.

FLIT 494 *Tutorat en littérature* (3 crédits)

Préalables : 12 crédits en littérature et autorisation du département. Étude individuelle dirigée d'un sujet particulier dans le domaine des littératures de langue française.

FLIT 495 *Tutorat en littérature* (3 crédits)

Préalables : 12 crédits en littérature et autorisation du département. Étude individuelle dirigée d'un sujet particulier dans le domaine des littératures de langue française.

N.B. : Toute étudiante et tout étudiant s'inscrivant pour la seconde fois au cours FLIT 494 obtient les crédits FLIT 495.

N.B. : Les étudiantes et étudiants qui ont suivi FRAN 495 ne peuvent obtenir de crédits pour ce cours.

FLIT 496 *Recherche dirigée* (6 crédits)

Préalables : 12 crédits dans la spécialité et autorisation du département. Cours offert uniquement aux étudiantes et étudiants des programmes de majeure et de spécialisation en littératures de langue française. Étude individuelle dirigée permettant d'approfondir un sujet particulier dans le domaine des littératures de langue française.

FLIT 498 *Étude d'un sujet particulier* (3 crédits)

Étude d'un sujet particulier dans le domaine des littératures de langue française. Le contenu spécifique du cours est indiqué dans le Undergraduate Class Schedule.

Traduction

FTRA 200 *Méthodologie de la traduction* (3 crédits)

Préalables : ENGL 207 et FRAN 306 ou équivalent. Ce cours a pour but d'initier l'étudiante et l'étudiant aux problèmes de la traduction. Il sera une introduction générale aux différentes approches du texte à traduire : analyse du discours, grammaire contrastive, stylistique comparée, terminologie et recherche documentaire.

N.B. : Ce cours comporte plusieurs sections, les unes réservées aux étudiantes et étudiants de l'option française, les autres à celles et ceux de l'option anglaise.

N.B. : Les étudiantes et étudiants qui ont suivi TRAD 200 ne peuvent obtenir de crédits pour ce cours.

FTRA 201 *Traduction générale du français à l'anglais I* (3 crédits)

Préalable : FTRA 200. Traduction du français à l'anglais de textes généraux et analyse des problèmes liés au transfert linguistique. (A)

N.B. : Les étudiantes et étudiants qui ont suivi TRAD 201 ou 202 ne peuvent obtenir de crédits pour ce cours.

FTRA 202 *Traduction générale de l'anglais au français I* (3 crédits)

Préalable : FTRA 200. Traduction de l'anglais au français de textes généraux et analyse des problèmes liés au transfert linguistique. (F)

N.B. : Les étudiantes et étudiants qui ont suivi TRAD 201 ou 202 ne peuvent obtenir de crédits pour ce cours.

FTRA 203 *L'anglais en contact avec le français au Québec* (3 crédits)

Ce cours s'adresse aux étudiantes et étudiants anglophones en traduction, langue, littérature et rédaction. Il les sensibilisera aux problèmes liés au contact de l'anglais avec le français au Québec et leur permettra de corriger leurs propres erreurs de façon systématique. Le cours est axé sur la langue écrite et on travaillera uniquement sur des textes journalistiques.

FTRA 204 *Le français en contact avec l'anglais au Québec* (3 crédits)

Ce cours s'adresse aux étudiantes et étudiants francophones en traduction, langue, littérature et rédaction. Il les sensibilisera aux problèmes liés au contact du français avec l'anglais au Québec et leur permettra de corriger leurs propres erreurs de façon systématique. Le cours est axé sur la langue écrite et on travaillera uniquement sur des textes journalistiques.

FTRA 207 *Traduction générale du français à l'anglais II* (3 crédits)

Préalable : FTRA 200. Ce cours s'adresse aux étudiantes et étudiants anglophones et porte sur la traduction du français à l'anglais de textes généraux, et sur l'analyse des problèmes liés au transfert linguistique. (A)

FTRA 208 *Traduction générale de l'anglais au français II* (3 crédits)

Préalable : FTRA 200. Ce cours s'adresse aux étudiantes et étudiants francophones et porte sur la traduction de l'anglais au français de textes généraux, et sur l'analyse des problèmes liés au transfert linguistique. (F)

FTRA 298 *Étude d'un sujet particulier* (3 crédits)

N.B. : Les étudiantes et étudiants qui ont suivi un cours TRAD 298 ayant le même contenu ne peuvent obtenir de crédits pour ce cours.

FTRA 299 *Étude d'un sujet particulier* (6 crédits)

Les préalables de ces cours, ainsi que les sujets particuliers qui y sont étudiés, sont indiqués dans le Undergraduate Class Schedule.

N.B. : Les étudiantes et étudiants qui ont suivi un cours TRAD 299 ayant le même contenu ne peuvent obtenir de crédits pour ce cours.

FTRA 301 *Traduction littéraire du français à l'anglais* (3 crédits)

Préalable : FTRA 201. Sensibilisation aux problèmes spécifiques à la traduction littéraire. Travaux pratiques : traduction de textes de genres variés. (A)

N.B. : Les étudiantes et étudiants qui ont suivi TRAD 301 ou 302 ne peuvent obtenir de crédits pour ce cours.

FTRA 304 *Traduction littéraire de l'anglais au français* (3 crédits)

Préalable : FTRA 202. Sensibilisation aux problèmes spécifiques à la traduction littéraire. Travaux pratiques : traduction de textes de genres variés. (F)

N.B. : Les étudiantes et étudiants qui ont suivi TRAD 303 ou 304 ne peuvent obtenir de crédits pour ce cours.

FTRA 305 *Initiation à la traduction économique du français à l'anglais* (3 crédits)

Préalable : FTRA 207. Sensibilisation aux problèmes que pose dans le domaine de l'économie la traduction du français à l'anglais. (A)

FTRA 306 *Initiation à la traduction économique de l'anglais au français* (3 crédits)

Préalable : FTRA 208. Sensibilisation aux problèmes que pose dans le domaine de l'économie la traduction de l'anglais au français. (F)

FTRA 310 *Initiation à la recherche documentaire et terminologique* (3 crédits)

Préalable : FTRA 201 ou 202. Le cours fournit les outils permettant de repérer les problèmes de terminologie en traduction. Sont traités : les cheminement documentaire et terminologique (terminologie bilingue ou unilingue, langues de spécialités); la création de produits terminographiques (surtout thématiques); l'intervention linguistique et ses modalités (perspective sociolinguistique). (F/A)

N.B. : Les étudiantes et étudiants qui ont suivi TRAD 310 ne peuvent obtenir de crédits pour ce cours.

FTRA 398 *Étude d'un sujet particulier* (3 crédits)

N.B. : Les étudiantes et étudiants qui ont suivi un cours TRAD 398 ayant le même contenu ne peuvent obtenir de crédits pour ce cours.

FTRA 399 *Étude d'un sujet particulier* (6 crédits)

Les préalables de ces cours, ainsi que les sujets particuliers qui y sont étudiés, sont indiqués dans le *Undergraduate Class Schedule*.

N.B. : Les étudiantes et étudiants qui ont suivi un cours TRAD 399 ayant le même contenu ne peuvent obtenir de crédits pour ce cours.

FTRA 401 *Traduction littéraire avancée : du français à l'anglais* (3 crédits)

Préalable : FTRA 301. Étude des différents principes et des différentes techniques de la traduction littéraire; aperçu de la traduction littéraire au Canada. Travaux pratiques : analyse critique et comparaison de traductions et de leur original; traduction de textes français. (A)

N.B. : Les étudiantes et étudiants qui ont suivi TRAD 401 ne peuvent obtenir de crédits pour ce cours.

FTRA 402 *Traduction littéraire avancée : de l'anglais au français* (3 crédits)

Préalable : FTRA 304. Étude des différents principes et des différentes techniques de la traduction littéraire; aperçu de la traduction littéraire au Canada. Travaux pratiques : analyse critique et comparaison de traductions et de leur original; traduction de textes anglais. (F)

N.B. : Les étudiantes et étudiants qui ont suivi TRAD 402 ne peuvent obtenir de crédits pour ce cours.

FTRA 403 *Traduction scientifique et technique du français à l'anglais* (3 crédits)

Préalable : FTRA 201. Initiation aux différents problèmes de la traduction dans les langues de spécialités scientifiques et techniques (français-anglais). Le cours est divisé en plusieurs parties, chaque partie correspondant à un domaine spécialisé en traduction. (A)

N.B. : Les étudiantes et étudiants qui ont suivi TRAD 403 ne peuvent obtenir de crédits pour ce cours.

FTRA 404 *Traduction scientifique et technique de l'anglais au français* (3 crédits)

Préalable : FTRA 202. Initiation aux différents problèmes de la traduction dans les langues de spécialités scientifiques et techniques (anglais-français). Le cours est divisé en plusieurs parties, chaque partie correspondant à un domaine spécialisé en traduction. (F)

N.B. : Les étudiantes et étudiants qui ont suivi TRAD 404 ne peuvent obtenir de crédits pour ce cours.

FTRA 405 *Traduction commerciale et juridique du français à l'anglais* (3 crédits)

Préalable : FTRA 201. Initiation aux différents problèmes de la traduction dans les langues de spécialités de l'administration, du commerce et du droit (français-anglais). Le cours est divisé en plusieurs parties, chaque partie correspondant à un domaine spécialisé en traduction. (A)

N.B. : Les étudiantes et étudiants qui ont suivi TRAD 405 ne peuvent obtenir de crédits pour ce cours.

FTRA 406 *Traduction commerciale et juridique de l'anglais au français* (3 crédits)

Préalable : FTRA 202. Initiation aux différents problèmes de la traduction dans les langues de spécialités de l'administration, du commerce et du droit (anglais-français). Le cours est divisé en plusieurs parties, chaque partie correspondant à un domaine spécialisé. (F)

N.B. : Les étudiantes et étudiants qui ont suivi TRAD 406 ne peuvent obtenir de crédits pour ce cours.

FTRA 408 *Adaptation publicitaire* (3 crédits)

Préalable : FTRA 301 ou 305, 304 ou 306. Initiation à l'adaptation de textes publicitaires. À partir d'exemples empruntés à la publicité écrite, radiophonique ou télévisée, les étudiantes et étudiants seront amenés à se familiariser avec les problèmes linguistiques, affectifs et sociaux soulevés par le travail d'adaptation. (F/A)

N.B. : Les étudiantes et étudiants qui ont suivi TRAD 408 ne peuvent obtenir de crédits pour ce cours.

FTRA 409 *Révision et correction en traduction* (3 crédits)

Préalable : FTRA 301 ou 305. Ce cours abordera les différentes méthodes de révision et de correction de textes rédigés ou traduits en anglais; il sensibilisera les étudiantes et étudiants aux aspects humains et techniques du métier de réviseure et réviseur; on touchera aussi aux problèmes de l'évaluation de la qualité des traductions. (A)

N.B. : Les étudiantes et étudiants qui ont suivi TRAD 409 ou 410 ne peuvent obtenir de crédits pour ce cours.

FTRA 410 *Révision et correction en traduction* (3 crédits)

Préalable : FTRA 304 ou 306. Ce cours abordera les différentes méthodes de révision et de correction de textes rédigés ou traduits en français; il sensibilisera les étudiantes et étudiants aux aspects humains et techniques du métier de réviseure et réviseur; on touchera aussi aux problèmes de l'évaluation de la qualité des traductions. (F)

N.B. : Les étudiantes et étudiants qui ont suivi TRAD 409 ou 410 ne peuvent obtenir de crédits pour ce cours.

FTRA 411 *Terminologie et mondialisation* (3 crédits)

Préalable : FTRA 310. Le cours porte sur certains points fins en terminologie et en terminographie modernes : synonymie, marques sociolinguistiques, néonymie, normalisation et internationalisation. Il traite spécifiquement du rôle de la terminologie dans la gestion de l'information unilingue et multilingue dans les entreprises et dans les organismes nationaux et internationaux. L'aspect pratique prend, entre autres, la forme de rédaction de rapports de recherche et l'utilisation d'outils terminotiques. (F/A)

FTRA 412 *Théories de la traduction* (3 crédits)

Préalable : FTRA 301 ou 304 ou 305 ou 306. Ce cours est une initiation aux différentes théories actuelles de la traduction. Est examiné l'apport de secteurs disciplinaires clés tels que la linguistique, la sémiotique, la sociocritique, dans le développement de la traductologie moderne. (F/A)

N.B. : Les étudiantes et étudiants qui ont suivi TRAD 412 ne peuvent obtenir de crédits pour ce cours.

FTRA 414 *Histoire de la traduction* (3 crédits)

Préalable : FTRA 301 ou 304 ou 305 ou 306. Cours d'initiation à l'histoire de la traduction où sont traités les grands courants de la traduction depuis l'Antiquité classique. Sera également abordée la traduction dans certaines sociétés non occidentales. On procèdera par thèmes et par aires géographiques en mettant l'accent sur les époques clés de grands changements politiques et culturels. (F/A)

N.B. : Les étudiantes et étudiants qui ont suivi TRAD 414 ne peuvent obtenir de crédits pour ce cours.

FTRA 416 *Informatique et traduction* (3 crédits)

Préalables : FTRA 201 ou 202, et connaissance du traitement de textes. Ce cours porte sur la langue de l'informatique, la théorie et les concepts fondamentaux qui s'y rapportent. Il comporte des exercices de traduction, et une initiation aux outils informatisés pour les traducteurs : Internet, bases de données, systèmes de traduction assistée, utilitaires. (F/A)

N.B. : Les étudiantes et étudiants qui ont suivi TRAD 416 ne peuvent obtenir de crédits pour ce cours.

FTRA 418 *Web, technologies, traduction : théories et critiques* (3 crédits)

Préalable : FTRA 412 ou 414. Ce cours pose une réflexion théorique sur les pratiques contemporaines issues du contexte de la mondialisation par rapport aux technologies, au Web multilingue et à la traduction. Sont examinés les aspects et les enjeux culturels, sociaux, linguistiques, scientifiques, techniques, philosophiques, institutionnels, politiques et idéologiques. Le cours comporte des discussions hebdomadaires et un travail approfondi de recherche sur l'analyse des courants actuels des technologies et du Web en mettant l'accent sur la traduction et la communication mondiale.

N.B. : Les étudiantes et étudiants qui ont suivi le même sujet sous le numéro FTRA 498 ne peuvent obtenir de crédits pour ce cours.

FTRA 420 *Stage de formation : de l'anglais au français* (6 crédits)

Préalables : 60 crédits en traduction et autorisation de la coordinatrice ou du coordinateur des stages. Le stage a pour but d'initier l'étudiante ou l'étudiant à l'activité professionnelle dans le domaine de la traduction de l'anglais au français et de lui faire connaître le monde du travail. (Le département fera tout son possible pour faciliter l'obtention d'un stage mais ne peut s'engager à trouver un stage pour toutes les candidates et tous les candidats.) (F)

N.B. : Les étudiantes et étudiants qui ont suivi TRAD 420 ne peuvent obtenir de crédits pour ce cours.

FTRA 421 *Stage de formation : du français à l'anglais* (6 crédits)

Préalables : 60 crédits en traduction et autorisation de la coordinatrice ou du coordinateur des stages. Le stage a pour but d'initier l'étudiante ou l'étudiant à l'activité professionnelle dans le domaine de la traduction du français à l'anglais et de lui faire connaître le monde du travail. (Le département fera tout son possible pour faciliter l'obtention d'un stage mais ne peut s'engager à trouver un stage pour toutes les candidates et tous les candidats.) (A)

N.B. : Les étudiantes et étudiants qui ont suivi TRAD 421 ne peuvent obtenir de crédits pour ce cours.

FTRA 422 *Stage de formation : de l'anglais au français I* (3 crédits)

Préalables : 60 crédits en traduction et autorisation de la coordinatrice ou du coordinateur des stages. Le stage a pour but d'initier l'étudiante ou l'étudiant à l'activité professionnelle dans le domaine de la traduction de l'anglais au français et de lui faire connaître

le monde du travail. (Le département fera tout son possible pour faciliter l'obtention d'un stage mais ne peut s'engager à trouver un stage pour toutes les candidates et candidats.) (F)

FTRA 423 *Stage de formation : du français à l'anglais I* (3 crédits)

Préalables : 60 crédits en traduction et autorisation de la coordinatrice ou du coordinateur des stages. Le stage a pour but d'initier l'étudiante ou l'étudiant à l'activité professionnelle dans le domaine de la traduction du français à l'anglais et de lui faire connaître le monde du travail. (Le département fera tout son possible pour faciliter l'obtention d'un stage mais ne peut s'engager à trouver un stage pour toutes les candidates et candidats.) (A)

FTRA 424 *Stage de formation : de l'anglais au français II* (3 crédits)

Préalables : 60 crédits en traduction et autorisation de la coordinatrice ou du coordinateur des stages. Le stage a pour but d'initier l'étudiante ou l'étudiant à l'activité professionnelle dans le domaine de la traduction de l'anglais au français et de lui faire connaître le monde du travail. (Le département fera tout son possible pour faciliter l'obtention d'un stage mais ne peut s'engager à trouver un stage pour toutes les candidates et candidats.) (F)

FTRA 425 *Stage de formation : du français à l'anglais II* (3 crédits)

Préalables : 60 crédits en traduction et autorisation de la coordinatrice ou du coordinateur des stages. Le stage a pour but d'initier l'étudiante ou l'étudiant à l'activité professionnelle dans le domaine de la traduction du français à l'anglais et de lui faire connaître le monde du travail. (Le département fera tout son possible pour faciliter l'obtention d'un stage mais ne peut s'engager à trouver un stage pour toutes les candidates et candidats.) (A)

FTRA 438 *Initiation au sous-titrage* (3 crédits)

Préalable : FTRA 301 ou 305, 304 ou 306. Ce cours a pour but d'initier les étudiantes et étudiants à la traduction audiovisuelle, en particulier au sous-titrage. Il comporte un volet théorique, avec lectures et analyses, ainsi qu'un volet pratique où sont traités les principes et les conventions du sous-titrage, les aspects techniques et les genres cinématographiques. Sont aussi abordées la traduction de la voix hors-champ et les techniques d'accessibilité tels le sous-titrage pour malentendants et l'audiodescription.

N.B. : Les étudiantes et étudiants qui ont suivi TRAD 408 ou qui ont suivi le même sujet sous le numéro FTRA 498 ne peuvent obtenir de crédits pour ce cours.

FTRA 452 *Traduction automatique (TA) et traduction assistée par ordinateur (TAO)* (3 crédits)

Préalables : FTRA 416. Ce cours permet d'analyser les aspects morphologiques, lexicaux, syntaxiques et sémantiques des systèmes de traduction automatisée. L'étudiante et l'étudiant apprennent à appliquer les concepts analysés à un système commercialisé. Ils évaluent des traductions machine, font des exercices simples de programmation portant sur des problèmes linguistiques; ils appliquent des outils de gestion et de traduction au matériel à localiser à l'aide de logiciels de localisation, de logiciels de terminologie, et de mémoires de traduction.

FTRA 455 *Gestion de projets* (3 crédits)

Préalables : 12 crédits FTRA. Ce cours traite de la gestion des projets de traduction/localisation multilingues, depuis la rédaction de l'offre de services, jusqu'au contrôle de la qualité et la livraison, en passant par la résolution de problèmes et la gestion en situation de crise. Il comprend une partie théorique et des mises en situation. Les étudiantes et étudiants se familiarisent avec l'évaluation des ressources (humaines et matérielles) nécessaires pour exécuter le travail, l'élaboration d'échéanciers et le suivi d'un budget. Ils apprennent à gérer les ressources affectées aux projets afin de pouvoir respecter le mandat qui leur est confié.

FTRA 458 *Pratique de la localisation* (3 crédits)

Préalables : 12 crédits FTRA. L'étudiante et l'étudiant étudieront dans ce cours les stratégies de localisation et les processus de localisation : la localisation de logiciels et la localisation de sites web; les acteurs dans les projets de localisation; la situation et le travail du traducteur dans les projets de localisation; les types de fichiers à localiser : ressources, code source, fichiers d'aide, guides imprimés, matériel marketing; les types de logiciels localisés : logiciels système, logiciels de gestion, logiciels client, logiciels multimédia, logiciels web.

FTRA 492 *Tutorat en traduction* (3 crédits)

Préalables : 12 crédits de traduction au niveau « 400 » et permission du département. Étude d'un sujet particulier dans le domaine de la traduction.

N.B. : Les étudiantes et étudiants qui ont suivi FRAN 492 ne peuvent obtenir de crédits pour ce cours.

FTRA 498 *Étude avancée d'un sujet particulier* (3 crédits)

N.B. : Les étudiantes et étudiants qui ont suivi un cours TRAD 498 ayant le même contenu ne peuvent obtenir de crédits pour ce cours.

FTRA 499 *Étude avancée d'un sujet particulier* (6 crédits)

Les préalables de ces cours, ainsi que les sujets particuliers qui y sont étudiés, sont indiqués dans le *Undergraduate Class Schedule*.
N.B. : Les étudiantes et étudiants qui ont suivi un cours TRAD 499 ayant le même contenu ne peuvent obtenir de crédits pour ce cours.

HEALTH, KINESIOLOGY, AND APPLIED PHYSIOLOGY Section 31.120

Faculty

Chair

VÉRONIQUE PEPIN, PhD *Arizona State University*; Associate Professor

Professors

SIMON L. BACON, PhD *University of Birmingham*; Provost's Distinction

RICHARD COURTEMANCHE, PhD *Université de Montréal*

THANH DANG-VU, MD PhD *Université de Liège*

ROBERT D. KILGOUR, PhD *Florida State University*

Associate Professors

ANDREAS BERGDAHL, PhD *Lund University*

PETER J. DARLINGTON, PhD *University of Western Ontario*

RICHARD DEMONT, PhD *University of Pittsburgh*, CAT(C), ATC

GEOFFREY DOVER, PhD *University of Florida*, CAT(C), ATC

ALAIN LEROUX, PhD *McGill University*

SYLVIA SANTOSA, PhD *McGill University*

NANCY ST-ONGE, PhD *Université de Montréal*

Assistant Professors

ANGELA ALBERGA, PhD *University of Ottawa*

MARYSE FORTIN, PhD *University of Alberta*, CAT(C)

Lecturers

JACQUELINE CAMLEY, MSc *University of Florida*, CAT(C), ATC

ROBERT PANENIC, MA *McGill University*

Affiliate Professors

ANDRÉ ARSENAULT, MD PhD *Université de Montréal*

LOUIS BHERER, PhD *Université de Montréal*

TAMARA COHEN, PhD *McGill University*

PHILIPPE FAIT, PhD *Université Laval*, CAT(C), ATC

LISA KAKINAMI, PhD *University of Rochester School of Medicine and Dentistry*

KIM LAVOIE, PhD *Concordia University*

PAUL MARTINEAU, MDCM *McGill University*, FRSCS

JOSÉ MORAIS, MD PhD *Université de Montréal*

SANDRA PELÁEZ, PhD *Concordia University*

RICHARD POUND, LLD *Concordia University*

EMILIE SANDMAN, MD *Université de Montréal*, FRCSC

ANTONIO VIGANO, MD *University of Milan*

For the complete list of faculty members, please consult the Department website.

Location

Loyola Campus

Richard J. Renaud Science Complex, Room: SP 165

514-848-2424, ext. 3327

Department Objectives

The Department of Health, Kinesiology, and Applied Physiology is committed to teaching and research in the areas of exercise, health, and physical activity while emphasizing the 1) fields of athletic therapy and 2) kinesiology and clinical exercise physiology. The curriculum permits students to explore the biomechanical and physiological responses to physical activity of healthy individuals and persons with a variety of pathologies and disabilities. Lectures and laboratories are combined with supervised involvement in research, and community and professional activities. Students are provided with an education which is compatible with obtaining employment in the health and fitness field or continuing their studies in health-related professional or graduate schools.

The BSc Honours in Athletic Therapy, BSc in Athletic Therapy, BSc Honours in Exercise Science, BSc Major in Exercise Science, BSc Honours in Kinesiology and Clinical Exercise Physiology and BSc in Kinesiology and Clinical Exercise Physiology provide students with the opportunity to acquire essential knowledge and a strong foundation in the field of exercise science. Students are exposed to a concentrated series of courses that incorporate the application of biological sciences to exercise, physical activity, and health-related areas including athletic therapy and kinesiology and clinical exercise physiology.

The fundamental concepts associated with the BSc in Kinesiology and Clinical Exercise Physiology (KCEP) include the adaptation of traditional exercise forms, assessment techniques, and training protocols which address the needs of individuals with a disease or functional disability (e.g. heart disease, diabetes, neurological disorders). Students entering the field of KCEP acquire an appreciation of persons with a disability, their lifestyle, and their exercise possibilities. The form of exercise application ranges from adapted physical activities to competitive sports.

The BSc in Athletic Therapy (BScAT) is accredited by the Canadian Athletic Therapists Association (CATA) and is directed toward the preparation of students seeking to become a Certified Athletic Therapist in Canada (CAT[C]). A CAT(C) is devoted to the health care of physically active individuals. The scope of practice of the CATA includes prevention, immediate care, and reconditioning of musculoskeletal injuries. Some of the techniques used to accomplish prevention of injury are postural evaluation, conditioning, and providing prophylactic support. Immediate care and rehabilitation of musculoskeletal injury consist of injury assessment, first aid and emergency care, exercise and modality therapy, and preparing individuals for safe return to physical activity or athletic participation. Student members (certification candidates) of the CATA must fulfill the academic and practical requirements of a program accredited by the CATA in order to enter the CATA certification exam process. The Department of Health, Kinesiology, and Applied Physiology offers one of seven such programs in Canada.

While the BSc major offers core applied-science, health, and fitness courses, the BSc honours also introduces undergraduate students to research concepts and protocols. The BSc in Athletic Therapy (BScAT) and BSc in Kinesiology and Clinical Exercise Physiology (KCEP) offer courses providing a theoretical knowledge base in the respective areas of study.

NOTE: Labs in the Department of Health, Kinesiology, and Applied Physiology may require physical contact and/or skin exposure with another classmate while learning assessment, treatment, exercise techniques, and equipment placement. The labs manifest important and necessary scenarios to prepare the student for future professional employment. All labs, and parts thereof, in the Department of Health, Kinesiology, and Applied Physiology are mandatory. If participation in some labs is deemed problematic, the laboratory instructor, the course professor, and/or Chair of the Department of Health, Kinesiology, and Applied Physiology must be contacted as early as possible.

Programs

Students are required to complete the appropriate profile for entry into the programs within the Department of Health, Kinesiology, and Applied Physiology (see §31.002 — Programs and Admission Requirements — Profile). Students entering the major, Athletic Therapy, and Kinesiology and Clinical Exercise Physiology programs should refer to §16.3.10 — Academic Performance, and §31.003.1 — AGPA Requirements. Students considering entry into the honours program should refer to §31.003 — Degree Requirements which includes the honours regulations for the Faculty of Arts and Science.

Application Procedures

All newly admitted students enter the BSc Major in Exercise Science. Admission to the BSc Honours in Exercise Science, BSc in Athletic Therapy (BScAT) or BSc in Kinesiology and Clinical Exercise Physiology is by internal transfer only. Upon completion of a specified list of courses, any student may submit a request for an internal transfer.

Eligibility Requirements for Internal Transfer

To be eligible to transfer from the BSc Major into the BSc Honours program, students must: 1) complete all Exercise Science courses in Stage I of the major, 2) have an assessment GPA of at least 3.30 for all program and elective courses, 3) have a cumulative GPA of at least 3.30 for all program and elective courses, and 4) have letter grades of C or above in all program and elective courses.

To be eligible to transfer from the BSc Major into the BSc in Athletic Therapy (BScAT) or the BSc in Kinesiology and Clinical Exercise Physiology, students must complete all Exercise Science courses in Stage I of the major with a minimum cumulative GPA of 3.00.

NOTE: Students who fail to meet the internal transfer requirements from the major to the honours, Athletic Therapy, or Kinesiology and Clinical Exercise Physiology program have two options. The first option is to remain in the major for the duration of their studies. The second option is to repeat some Exercise Science courses in Stage I of the major until the transfer requirements have been met.

Stage Eligibility Requirements

The major, honours, and Kinesiology and Clinical Exercise Physiology (KCEP) programs are composed of three stages, whereas the Athletic Therapy (AT) program has four stages. To be eligible to register for courses in the next stage of a given program, students must complete all of the courses in a previous stage of their program. Please refer to the course maps that follow summarizing the courses students are required to take in each stage of the respective programs. Students who fail to complete all the science prerequisites by the end of Stage II are prevented from progressing to the next stage of their program. In addition, it is strongly recommended that these students contact their academic advisor. The science prerequisite courses include BIOL 201³; CHEM 205³, 206³; MATH 203³, 205³; PHYS 204³, 205³, 206³, 224¹, 225¹, 226¹ or their equivalents. Please note that PHYS 204 and 224 or their equivalents must be taken before registering for EXCI 351.

Stage Requirements of the Major Program

To be eligible to register for courses in Stage II of the major, students must complete all Exercise Science courses in Stage I of the major and be in acceptable standing (see §16.3.10 and §31.003.1).

To be eligible to register for courses in Stage III of the major, students must complete all Exercise Science courses in Stage II of the major and be in acceptable standing (see §16.3.10 and §31.003.1).

Stage Requirements of the Honours Program

To be eligible to register for courses in Stage II of the honours, students must satisfy the honours internal transfer requirements.

To be eligible to register for courses in Stage III of the honours, students must: 1) have an assessment GPA of at least 3.30 for all program and elective courses, 2) have a cumulative GPA of at least 3.30 for all program and elective courses, and 3) have letter grades of C or above in all program and elective courses.

Stage Requirements of the KCEP Program

To be eligible to register for courses in Stage II of the KCEP, students must satisfy the KCEP program internal transfer requirements.

To be eligible to register for courses in Stage III of the KCEP, students must: 1) complete all Exercise Science courses in Stage II of the KCEP with a minimum cumulative GPA of 3.00, and 2) maintain a minimum cumulative GPA of 3.00 in all KCEP courses (Stages I and II).

Stage Requirements of the AT Program

To be eligible to register for courses in Stage II of the AT, students must satisfy the AT program internal transfer requirements.

To be eligible to register for courses in Stage III of the AT, students must: 1) complete all Exercise Science courses in Stage II of the AT with a minimum cumulative GPA of 3.00, and 2) maintain a minimum cumulative GPA of 3.00 in all AT program courses (Stages I and II).

To be eligible to register for courses in Stage IV of the AT program, students must: 1) complete all Exercise Science courses in Stage III of the AT program with a minimum cumulative GPA of 3.00, and 2) maintain a minimum cumulative GPA of 3.00 in all AT program courses (Stages I, II, and III).

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

78 BSc Honours in Kinesiology and Clinical Exercise Physiology

Stage I

24 CATA 262³, 263³; EXCI 252³, 253³, 254³, 258³, 259³; KCEP 210³

Stage II

24 EXCI 310³, 322³, 351³, 352³, 360³; KCEP 311³, 349³, 383³

Stage III

24 EXCI 421³, 426⁶, 445³, 460³; KCEP 411³, 449³, 483³

6 Chosen from EXCI 415³, 420³, 440³, 451³, 453³, 455³, 458³, 461³, 471³

NOTE: Students seeking admission to the honours program must apply to the Department Honours Committee normally following the completion of 24 program credits. Students must meet the Faculty of Arts and Science regulations concerning the honours program. For additional information concerning programs and courses, students should consult the Department.

102 BSc Honours in Athletic Therapy

Stage I

24 CATA 262³, 263³; EXCI 252³, 253³, 254³, 258³, 259³; KCEP 210³

Stage II

27 CATA 337³, 339³, 348³, 365⁶; EXCI 310³, 351³, 352³, 360³

Stage III

21 CATA 437³, 439³, 462³, 475⁶; EXCI 322³, 460³

3 Chosen from EXCI 415³, 420³, 440³, 451³, 453³, 461³; KCEP 311³, 411³

Stage IV

24 CATA 441³, 485³, 495³; EXCI 421³, 426⁶, 445³, 471³

3 Chosen from CATA 447³; EXCI 455³, 458³, 461³; MANA 300³

NOTE: Students seeking admission to the honours program must apply to the Department Honours Committee normally following the completion of 24 program credits. Students must meet the Faculty of Arts and Science regulations concerning the honours program. For additional information concerning programs and courses, students should consult the Department.

60 BSc Honours in Exercise Science

Stage I

24 CATA 262³, 263³; EXCI 252³, 253³, 254³, 258³, 259³; KCEP 210³

Stage II

15 EXCI 310³, 322³, 351³, 352³, 360³

Stage III

- 18 EXCI 420³, 421³, 426⁶, 445³, 460³
 3 Chosen from EXCI 415³, 440³, 451³, 453³, 455³, 458³, 461³, 471³

NOTE: Students seeking admission to the honours program must apply to the Department Honours Committee normally following the completion of 24 program credits. Students must meet the Faculty of Arts and Science regulations concerning the honours program. For additional information concerning programs and courses, students should consult the Department.

96 BSc in Athletic Therapy (BScAT)

Stage I

- 24 CATA 262³, 263³; EXCI 252³, 253³, 254³, 258³, 259³; KCEP 210³

Stage II

- 27 CATA 337³, 339³, 348³, 365⁶; EXCI 310³, 351³, 352³, 360³

Stage III

- 18 CATA 437³, 439³, 462³, 475⁶; EXCI 460³

- 6 Chosen from EXCI 415³, 420³, 440³, 451³, 453³, 461³; KCEP 311³, 411³

Stage IV

- 15 CATA 441³, 485³, 495³; EXCI 445³, 471³

- 6 Chosen from CATA 447³; EXCI 455³, 458³, 461³, 492³; MANA 300³

69 BSc in Kinesiology and Clinical Exercise Physiology

Stage I

- 24 CATA 262³, 263³; EXCI 252³, 253³, 254³, 258³, 259³; KCEP 210³

Stage II

- 21 EXCI 310³, 351³, 352³, 360³; KCEP 311³, 349³, 383³

Stage III

- 15 EXCI 445³, 460³; KCEP 411³, 449³, 483³

- 9 Chosen from EXCI 415³, 420³, 440³, 451³, 453³, 455³, 458³, 461³, 471³, 492³

45 BSc Major in Exercise Science

Stage I

- 24 CATA 262³, 263³; EXCI 252³, 253³, 254³, 258³, 259³; KCEP 210³

Stage II

- 12 EXCI 310³, 351³, 352³, 360³

Stage III

- 6 EXCI 445³, 460³

- 3 Chosen from EXCI 415³, 420³, 440³, 451³, 453³, 455³, 458³, 461³, 471³, 492³
-

Courses

CATA:

CATA 262 Emergency Care in Sport and Exercise (3 credits)

Prerequisite: EXCI 253 previously or concurrently; enrolment in a Health, Kinesiology, and Applied Physiology program. This course identifies common emergency situations in the athletic environment, and provides theoretical and practical components of management skills to safely deal with these situations. Specific signs and symptoms of basic emergency conditions are discussed. Planning of events to prepare for sport-related emergencies and administration of initial emergency techniques are included. Lectures and laboratory.

CATA 263 Principles of Athletic Therapy (3 credits)

Prerequisite: CATA 262; enrolment in an Exercise Science program. The course considers topics in athletic therapy from professional, preventive, and pathological perspectives. The course deals with injury classification, clinical flexibility, strength testing, cryotherapy, and sports dermatology. Preventive techniques such as pre-season physical examinations, protective equipment, hazard recognition, and taping techniques are also addressed. Acute and chronic pathologies associated with physical activity, as well as issues including sudden death and communicable diseases in athletics, and the adolescent athlete are discussed. Lectures and laboratory.

NOTE: Students who have received credit for EXCI 263 or 335 may not take this course for credit.

CATA 337 Assessment of the Upper and Lower Extremities (3 credits)

Prerequisite: Enrolment in the BScAT or Honours in Athletic Therapy. This course examines normal function of the upper and lower extremities of the human body. Abnormal function and various pathologies of these structures are addressed in depth. Making use of principles based on applied anatomy and physiology, students learn about clinical assessment procedures and implementation of evaluation methods addressing orthopaedic dysfunction. Types of surgical procedures are discussed. Lectures and laboratory.

NOTE: Students who have received credit for CATA 338 may not take this course for credit.

CATA 339 *Rehabilitation of the Upper and Lower Extremities* (3 credits)

Prerequisite: CATA 337 previously or concurrently; enrolment in the BScAT or Honours in Athletic Therapy. This course examines concepts in the rehabilitation process including tissue healing, and introduces students to various exercise protocols and manual techniques specific to the upper and lower extremities. Students learn how to implement safe and effective rehabilitation protocols to address orthopaedic dysfunction of these areas. Patient education to facilitate rehabilitation, documentation treatment plans and treatment outcomes are addressed. Lectures and laboratory.

NOTE: Students who have received credit for CATA 338 may not take this course for credit.

CATA 348 *Therapeutic Modalities in Sports Medicine* (3 credits)

Prerequisite: CATA 337, 339; enrolment in the BScAT or Honours in Athletic Therapy. Students are introduced to the parameters of therapeutic modalities and their physiological effects. Various modalities such as heat, cold, ultrasound, muscle stimulation, interferential current and Transcutaneous Electrical Nerve Stimulation (T.E.N.S.) are examined. For each modality, topics include instrumentation, set-up, and practical application. Basic concepts of manual treatment approaches, such as mobilizations, myofascial release, traction, and massage, are introduced. Indications and contraindications and precautions for all treatments are presented. Lectures and laboratory.

NOTE: Students who have received credit for EXCI 348 or 448 may not take this course for credit.

CATA 365 *Athletic Therapy Field Internship I* (6 credits)

Prerequisite: Enrolment in the BScAT or Honours in Athletic Therapy; permission of the Department. This course offers students the opportunity to work in an emergency or preventive setting with a sports team, although some clinical component may be introduced. Students must be certification candidates of the Canadian Athletic Therapists Association (CATA) and the Corporation des thérapeutes du sport du Québec (CTSQ). This course involves a commitment of 400 hours over two terms. Weekly seminars with agency supervisors are mandatory.

NOTE: Students who have received credit for CATA 390 may not take this course for credit.

CATA 437 *Assessment of the Hip, Spine and Pelvis* (3 credits)

Prerequisite: Enrolment in the BScAT or Honours in Athletic Therapy; successful completion of Stage II in the BScAT or Honours in Athletic Therapy. This course examines normal function of the hip, spine, and pelvis of the human body. Abnormal function and various pathologies of these structures are addressed in depth. Making use of principles based on applied anatomy and physiology, students learn about clinical assessment procedures and implementation of evaluation methods addressing orthopaedic dysfunction. Surgical procedures are discussed. Lectures and laboratory.

NOTE: Students who have received credit for CATA 438 may not take this course for credit.

CATA 439 *Rehabilitation of the Hip, Spine and Pelvis* (3 credits)

Prerequisite: CATA 437 previously or concurrently; enrolment in the BScAT or Honours in Athletic Therapy; successful completion of Stage II in the BScAT or Honours in Athletic Therapy. This course examines concepts in rehabilitation, introducing the students to various exercise protocols and manual techniques specific to hip, spine, and pelvis. Students learn how to implement advanced, safe, and effective rehabilitation protocols to address orthopaedic dysfunction of these areas. Lectures and laboratory.

NOTE: Students who have received credit for CATA 438 may not take this course for credit.

CATA 441 *Concepts in Manual Therapy* (3 credits)

Prerequisite: Enrolment in the BScAT or Honours in Athletic Therapy; successful completion of Stage III in the BScAT or Honours in Athletic Therapy. This course provides students with an understanding of the fundamental theory and practical basis for using various manual therapy techniques to keep athletes competition-ready, to help in their recovery from injury, and to improve their performance. The course explains various techniques in detail and describes the procedures involved in conducting effective treatment sessions. Muscle Energy, Active Release, Myofascial Release, and Sports Massage are some of the techniques discussed, demonstrated, and practised. Determining goals and organization of a treatment session, and the choice and application of techniques are also discussed. The goal of the course is to help athletic therapists determine the most appropriate manual therapy techniques for a variety of orthopaedic pathologies. Lectures and laboratory.

CATA 447 *Special Topics in Athletic Therapy* (3 credits)

Prerequisite: Enrolment in the BScAT or Honours in Athletic Therapy; successful completion of Stage II in the BScAT or Honours in Athletic Therapy. This course focuses on recent research outcomes and new issues in athletic therapy specific to prevention, assessment, and rehabilitation of athletic injuries. The course content varies within the domains of the Canadian Athletic Therapists Association depending upon the most current issues such as surgical techniques, new medications, advanced assessment and modality techniques, and issues related to professional development and the workplace environment. Information is presented from a variety of courses and disciplines to enhance the knowledge base received from core Athletic Therapy courses. Lectures only.

CATA 462 *Advanced Emergency Care* (3 credits)

Prerequisite: Enrolment in the BScAT or Honours in Athletic Therapy; successful completion of Stage II in the BScAT or Honours in Athletic Therapy. This course completes the preparation of Athletic Therapy students in the area of emergency care of sports-related injury. It identifies the less common and more complicated emergency situations experienced in the athletic therapy setting. Advanced theoretical and practical components are presented. This course develops the ability of the student to care for the athlete beyond the initial stages of emergency management and towards advanced life support. Lectures and laboratory.

CATA 475 *Athletic Therapy Clinical Internship I* (6 credits)

Prerequisite: Enrolment in the BScAT or Honours in Athletic Therapy; successful completion of Stage II in the BScAT or Honours in Athletic Therapy. Students must be certification candidates of the Canadian Athletic Therapists Association and the Corporation des thérapeutes du sport du Québec. The course offers a minimum 400-hour supervised work opportunity. Under the supervision of a Certified Athletic Therapist, students are shown basic administrative skills as seen in private rehabilitation clinics or within the Department of Health, Kinesiology, and Applied Physiology.

NOTE: Students who have received credit for CATA 480 may not take this course for credit.

CATA 485 *Athletic Therapy Field Internship II* (3 credits)

Prerequisite: Enrolment in the BScAT or Honours in Athletic Therapy; successful completion of Stage III in the BScAT or Honours in Athletic Therapy. This course offers students the opportunity to work in an emergency or preventive setting with a sports team, although some clinical component may be introduced. Students must be certification candidates of the Canadian Athletic Therapists Association (CATA) and the Corporation des thérapeutes du sport du Québec (CTSQ). This course involves a minimum commitment of 200 hours over one or two terms. Weekly seminars with agency supervisors are mandatory.

NOTE: Students who have received credit for CATA 390 may not take this course for credit.

CATA 495 *Athletic Therapy Clinical Internship II* (3 credits)

Prerequisite: Enrolment in the BScAT or Honours in Athletic Therapy; successful completion of Stage III in the BScAT or Honours in Athletic Therapy. Students must be certification candidates of the CATA and the CTSQ. The course offers a supervised period of work in a rehabilitation or athletic therapy clinic, for a minimum of 200 hours including a weekly seminar.

NOTE: Students who have received credit for CATA 480 may not take this course for credit.

EXCI:**EXCI 202 *The Body Human: Form and Function*** (3 credits)

This course provides insight into the manner in which common injuries and diseases impact on the anatomical structures and functional systems of the body. The various medical treatments and procedures available to maintain or restore the structural and functional integrity of the body are also addressed. Conditions of a cardiovascular, pulmonary, neuromuscular, metabolic and oncologic nature are discussed.

NOTE: Students who have received credit for this topic under an EXCI 298 number may not take this course for credit.

NOTE: Exercise Science students may not take this course for credit.

EXCI 204 *Food for Sport* (3 credits)

The course introduces students to a basic understanding of how the digestive system functions, and then examines the role of diet on sport performance. Students learn about the impact of the major food stuffs (carbohydrates, fats, proteins, vitamins, minerals, water) on performance outcomes. The use of ergogenic aids commonly used to enhance sport performance are also discussed with respect to their effectiveness. Caloric balance, diet and body composition are also discussed relevant to specific sport requirements.

NOTE: Students who have received credit for this topic under an EXCI 298 number may not take this course for credit.

NOTE: Exercise Science students may not take this course for credit.

EXCI 206 *The Science of Sport* (3 credits)

The course introduces basic and practical knowledge of human movement in sports and physical activity. Anatomical and physiological knowledge pertinent to body movement is presented in simple and meaningful terms. Biomechanical concepts and principles applied to body movement in different sports and physical activities are also addressed. Consideration is also given to nutritional aspects and injury prevention in sport and exercise.

NOTE: Students who have received credit for this topic under an EXCI 298 number may not take this course for credit.

NOTE: Exercise Science students may not take this course for credit.

EXCI 218 *Physical Growth and Maturation* (3 credits)

This course considers normal and abnormal growth and maturation patterns of the musculoskeletal, neural, hormonal, cardiovascular, and respiratory systems of the body. In addition, socialization and psychosocial development processes with relevance to an exercise or sports environment are examined. These patterns and processes are investigated from childhood through adolescence and adulthood. Lectures only.

NOTE: Exercise Science students may not take this course for credit.

EXCI 233 *Current Issues in Personal and Community Health* (3 credits)

This course presents an overview of factors influencing personal and community health. Students are exposed to prevalent physical and mental health issues from biological, psychological, and sociological points of view. Health-related consequences of alcohol abuse, drugs, birth control, sedentary lifestyle, eating disorders, and communicable diseases are among the topics considered. Lectures only.

NOTE: Exercise Science students may not take this course for credit.

EXCI 251 *Fundamentals of Health and Physical Activity* (3 credits)

The basic and contemporary issues of health and physical activity are discussed. General topics regarding the benefits of physical activity are examined from anatomical and physiological perspectives. Upon completion, students are able to apply the principles of fitness and wellness to their own lives, to assess their current level of fitness and wellness, to create plans for changing their

lifestyle to reach wellness, and to monitor their progress using the health-related components of physical fitness: body composition, cardiovascular endurance, muscular strength and endurance, and flexibility. Lectures only.

NOTE: Exercise Science students may not take this course for credit.

EXCI 252 *Introduction to Physical Activity, Health and Fitness* (3 credits)

Prerequisite: Enrolment in an Exercise Science program. This course focuses on the fundamentals of fitness assessment and the design of individualized exercise programs compatible with the responsibilities of a health/fitness instructor. Topics of study include screening clients for fitness testing and physical activity participation; the selection of appropriate tests to assess the health-related components of physical fitness such as body composition, cardiovascular endurance, muscular strength, local muscular endurance, and flexibility; interpretation of test results; and the application of exercise principles in the design of safe and effective individualized exercise prescriptions of the apparently healthy client. Lectures and laboratory.

NOTE: Students who have received credit for EXCI 261 and 342 may not take this course for credit.

EXCI 253 *Human Anatomy I: Musculoskeletal Anatomy* (3 credits)

Prerequisite: Enrolment in an Exercise Science program. The major focus of this course covers the anatomy of the musculoskeletal system and accompanying (peripheral) circulatory and neurological systems. It also addresses introductory terminology and tissue differentiation. The structures are examined through approaches of surface anatomy, current and traditional media and/or cadaver examination. Lectures and laboratory.

EXCI 254 *Human Anatomy II: Systemic Anatomy* (3 credits)

Prerequisite: EXCI 253; enrolment in an Exercise Science program. The major focus of this course covers the anatomy of the central circulatory and central respiratory systems. It also addresses the anatomy of the brain and spinal column as well as the integumentary, digestive, and urogenital systems. The structures are examined through approaches of surface anatomy, current and traditional media and cadaver examination. Lectures and laboratory.

EXCI 258 *Human Physiology I: Musculoskeletal, Neuromuscular, and Bioenergetic Systems from Rest to Exercise* (3 credits)

Prerequisite: EXCI 253 previously or concurrently; enrolment in an Exercise Science program. This course reviews the functional organization of the musculoskeletal system, the peripheral neural influence to the muscular system, and the basic metabolic pathways underlying the bioenergetics of these systems. Related physiological adaptations during rest and exercise are discussed. Lectures and laboratory.

NOTE: Students who have received credit for EXCI 257 or 358 may not take this course for credit.

EXCI 259 *Human Physiology II: Cardiovascular and Respiratory Systems from Rest to Exercise* (3 credits)

Prerequisite: EXCI 254 previously or concurrently; enrolment in an Exercise Science program. This course focuses on the fundamental mechanisms of the cardiovascular and respiratory systems. In addition, adaptations of these systems to acute and chronic exercise as well as environmental factors are discussed. Lectures and laboratory.

NOTE: Students who have received credit for EXCI 357 or 358 may not take this course for credit.

EXCI 298 *Selected Topics in Exercise Science* (3 credits)

EXCI 299 *Selected Topics in Exercise Science* (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

EXCI 310 *Research Methods* (3 credits)

Prerequisite: Successful completion of Stage I in a Health, Kinesiology, and Applied Physiology program. This course provides students with a general overview of investigative research and the nature of scientific inquiry. Students receive instruction in critical inquiry and appraisal, research design, research ethics, and the role research plays in the development of professional practice/skills. Finally, this course provides the necessary knowledge and practical experience to enable students to plan and run an experimental project, including an understanding of the process of data collection, analysis, interpretation, and presentation. Lectures only.

NOTE: Students who have received credit for EXCI 250 may not take this course for credit.

EXCI 322 *Statistics for Exercise Science* (3 credits)

Prerequisite: EXCI 310 previously or concurrently; enrolment in a Health, Kinesiology, and Applied Physiology honours program; or permission of the Department. This course builds on students' experience derived from EXCI 310 to advance their knowledge of the research process by providing details of statistical techniques and methods that are common in exercise science. Lectures only.

EXCI 351 *Introduction to the Biomechanics of Human Movement* (3 credits)

Prerequisite: PHYS 204, 224 or equivalent; successful completion of Stage I in a Health, Kinesiology, and Applied Physiology program. The primary focus of this course concentrates on the mechanical principles of human movement. Fundamental principles of kinematics and kinetics are examined in a theoretical and practical context. Lectures and laboratory.

EXCI 352 *Essentials of Exercise Testing and Training in Athletic Populations* (3 credits)

Prerequisite: Successful completion of Stage I in a Health, Kinesiology, and Applied Physiology program. This course utilizes the students' background knowledge of anatomy, physiology, biomechanics, exercise physiology, and exercise programming to design

pre-season, in-season, and post-season conditioning programs for elite athletes in a variety of sports. Most importantly, this course focuses on the importance of applying scientific principles of training in the design of exercise programs for elite athletes. The importance of skill-related (i.e. speed, agility, and power) and health-related components (i.e. cardio-respiratory endurance, and muscle strength) of physical fitness relative to performance is emphasized in this course. Some of the topics covered include ergogenic aids, regulation of skeletal muscle mass, periodization, aerobic endurance and resistance exercise training, and plyometrics. Lectures and laboratory.

NOTE: Students who have received credit for EXCI 452 may not take this course for credit.

EXCI 360 *Neural and Hormonal Control of Human Systems* (3 credits)

Prerequisite: Successful completion of Stage I in a Health, Kinesiology, and Applied Physiology program. Basic principles of the neural control of human movement, including reference to the sensory systems (visual, auditory, vestibular, proprioceptive and kinesthetic) are discussed. Topics of hormonal influences affecting musculoskeletal, cardiovascular, respiratory systems and metabolism are included. Lectures only.

NOTE: Students who have received credit for EXCI 355 may not take this course for credit.

EXCI 398 *Selected Topics in Exercise Science* (3 credits)

EXCI 399 *Selected Topics in Exercise Science* (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

EXCI 415 *Behaviour Change and Interventions* (3 credits)

Prerequisite: Enrolment in a Health, Kinesiology, and Applied Physiology program; successful completion of Stage II in a Health, Kinesiology, and Applied Physiology program. Building on a theoretical background, this course includes practical aspects of health behaviour change in individuals. Using physical activity and eating habits as the main behaviours of interest, the topics discussed include understanding and assessing motivation, readiness to change, assessment of behaviours, barriers to change, changing multiple behaviours, adherence and compliance, and motivational communication. Students develop skills and knowledge to aid others in changing adverse behaviours. Lectures only.

EXCI 420 *Physical Activity Epidemiology* (3 credits)

Prerequisite: Enrolment in a Health, Kinesiology, and Applied Physiology program; successful completion of Stage II in a Health, Kinesiology, and Applied Physiology program. This course surveys the health-related aspects of exercise, physical activity, and physical fitness from the perspective of epidemiology. Topics include an introduction to the epidemiological process, the relationship between physical activity and disease (e.g. cardiovascular disease, obesity, cancer, mental illness), the biological mechanisms for healthy adaptations to physical activity, the behavioural determinants of physical activity, and public policy implications of the current literature.

NOTE: Students who have received credit for this topic under an EXCI 498 number may not take this course for credit.

EXCI 421 *Honours Seminar: Current Topics in Health and Exercise Science* (3 credits)

Prerequisite: EXCI 322; enrolment in a Health, Kinesiology, and Applied Physiology honours program; and successful completion of Stage II in an honours program; or permission of the Department. Using a combination of guest speakers and student presentations, this seminar is geared to critically examining current issues and methods in health and exercise science. Its emphasis is on theoretical and/or methodological issues as they relate to selected topics from these areas. Examples of topics include ethical issues and new emerging theories in health and exercise science, and utility of a particular research technique or methodology. Lectures only.

NOTE: Students who have received credit for EXCI 424 or 425 may not take this course for credit.

EXCI 426 *Honours Thesis* (6 credits)

Prerequisite: EXCI 421 previously or concurrently; enrolment in a Health, Kinesiology, and Applied Physiology honours program; successful completion of Stage II in an honours program. This course requires the student to propose and conduct a study and submit a thesis according to a recognized and approved scientific journal format. The work is supervised by a thesis chair selected by the student from within the Department.

EXCI 440 *Current Developments in the Biochemistry of Exercise* (3 credits)

Prerequisite: Enrolment in a Health, Kinesiology, and Applied Physiology program; successful completion of Stage II in a Health, Kinesiology, and Applied Physiology program. This course offers an in-depth examination of the current topics and literature in biochemistry, cellular and molecular biology, and physiology as they relate to the adaptations associated with physical activity, exercise training, or disease. The course is designed to integrate knowledge from the disciplines of Exercise Science, Biochemistry, and Biology, to facilitate the synthesis and evaluation of new ideas, and to promote the effective oral and written communication of these ideas.

NOTE: Students who have received credit for this topic under an EXCI 498 number may not take this course for credit.

EXCI 445 *Nutrition in Exercise and Sport* (3 credits)

Prerequisite: Enrolment in a Health, Kinesiology, and Applied Physiology program; successful completion of Stage II in a Health, Kinesiology, and Applied Physiology program. This course provides an overview of the anatomy and in-depth study of the physiology of the digestive system prior to examining the significance of carbohydrates, lipids, and proteins as essential nutritional requirements for physical activity and optimal performance. The importance of trace minerals and vitamins is also discussed. Specific issues such as the use of nutritional beverages, ergogenic aids, eating disorders, and nutritional concerns of athletes are some of the topics presented. Lectures only.

EXCI 451 Clinical Biomechanics (3 credits)

Prerequisite: Enrolment in a Health, Kinesiology, and Applied Physiology program; successful completion of Stage II in a Health, Kinesiology, and Applied Physiology program. This course addresses biomechanical aspects of the most common structural and neurological abnormalities of the spine resulting in pathological gait. It also addresses the mechanics of tissue and joint injury of the head, neck, torso, and extremities. Lectures only.

EXCI 453 Stress, Health and Disease (3 credits)

Prerequisite: Enrolment in a Health, Kinesiology, and Applied Physiology program; successful completion of Stage II in a Health, Kinesiology, and Applied Physiology program. This course is an introduction to the role stress plays in health and disease. Topics dealt with in this seminar-based course include defining and measuring stress, the relationship between stress and disease (e.g. cardiovascular disease, asthma, cancer, infectious illness), the pathophysiology of stress, and current issues and controversies in behavioural medicine.

NOTE: Students who have received credit for EXCI 320 or for this topic under an EXCI 398 number may not take this course for credit.

EXCI 455 Physical Activity, Health and Aging (3 credits)

Prerequisite: Enrolment in a Health, Kinesiology, and Applied Physiology program; successful completion of Stage II in the Major in Exercise Science, Honours in Exercise Science, KCEP or Honours in KCEP, or of Stage III in the BScAT or Honours in Athletic Therapy. This course addresses the health status, physical fitness, exercise patterns, and effectiveness of exercise prescription for the well elderly and those exhibiting symptoms of chronic diseases which commonly accompany the aging process. Lectures and laboratory.

EXCI 458 Pediatric Exercise Science (3 credits)

Prerequisite: Enrolment in a Health, Kinesiology, and Applied Physiology program; successful completion of Stage II in the Major in Exercise Science, Honours in Exercise Science, KCEP, or Honours in KCEP, or of Stage III in the BScAT or Honours in Athletic Therapy. This course introduces students to the anatomical, physiological, and psychosocial issues related to exercise and physical activity in children. Topics include influence on growth and health, injury potential, endurance exercise, weight training, youth in sport, competitive and collaborative play, stress in childhood, and the strategies for improving exercise habits of children. Lectures only.

EXCI 460 Integrative Human Physiology (3 credits)

Prerequisite: Enrolment in a Health, Kinesiology, and Applied Physiology program; successful completion of Stage II in the Major in Exercise Science, Honours in Exercise Science, KCEP, or Honours in KCEP; or of Stage III in the BScAT or Honours in Athletic Therapy. This course uses physiological homeostasis and the function of major organ systems as its basis. Students learn how the different systems act in an integrative fashion and how the body adjusts to various challenges to the maintenance of homeostasis. The focus is on five specific organ systems — the neural, muscular, cardiovascular, respiratory and renal systems. Students learn how these systems interactively function during health, exercise and disease.

EXCI 461 Pharmacology for Sport and Exercise (3 credits)

Prerequisite: Enrolment in a Health, Kinesiology, and Applied Physiology program; successful completion of Stage II in a Health, Kinesiology, and Applied Physiology program. This course provides the latest information on over-the-counter and prescription medications commonly used in sport. It offers a sound review of pharmacology and pharmacokinetic principles and explores the latest practice implications for certified athletic therapists and exercise specialists. The course includes indications, contraindications, and side effects of common therapeutic medications used in sport. Class discussions also cover natural products and the effects of their interactions with prescription and non-prescription pharmaceuticals.

EXCI 471 Pain Management Strategies (3 credits)

Prerequisite: Enrolment in a Health, Kinesiology, and Applied Physiology program; successful completion of Stage II in the Major in Exercise Science, Honours in Exercise Science, KCEP, or Honours in KCEP, or of Stage III of the BScAT or Honours in Athletic Therapy. This course relates theory and research to the practical experiences of client/athletic-practitioner interactions, relationships, and interventions. It addresses pain management principles as they relate to illness, injury, and rehabilitation. Lectures only.

EXCI 492 Independent Study in Exercise Science (3 credits)

Prerequisite: Enrolment in the Major in Exercise Science, KCEP, or BScAT; successful completion of Stage II in the Major in Exercise Science or KCEP, or of Stage III of the BScAT. This course provides an opportunity to conduct a small-scale scientific research project under the supervision of a faculty member from the Department. In consultation with a faculty member, the student selects a topic, formulates a research methodology, collects data, analyzes the results, and writes a formal research report.

NOTE: Students who have received credit for EXCI 491 may not take this course for credit.

EXCI 498 Advanced Topics in Exercise Science (3 credits)

Prerequisite: Permission of the Department.

EXCI 499 Advanced Topics in Exercise Science (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

KCEP:

KCEP 210 ***Principles of Clinical Exercise Physiology*** (3 credits)

Prerequisite: Enrolment in an Exercise Science program. This course considers topics in kinesiology and clinical exercise physiology from historical, professional, and applied perspectives. Introduction of exercise training principles and movement activity as the basis for patient rehabilitation and recovery programs in chronic diseases are discussed. The course deals with disease classification, basic intervention concepts, and preventive approaches. Ten observation hours are required for students who wish to transfer to the KCEP program.

NOTE: Students who have received credit for EXCI 210 may not take this course for credit.

KCEP 311 ***Pathophysiology in Clinical Exercise Science I*** (3 credits)

Prerequisite: Enrolment in the KCEP, KCEP Honours, BScAT or Honours in Athletic Therapy; successful completion of Stage I in the KCEP or Honours in KCEP, or of Stage III in the BScAT or Honours in Athletic Therapy. This course reviews pathophysiology, medical intervention techniques, and medication profiles of the most common neuromuscular and orthopaedic diseases and disabilities. Lectures only.

NOTE: Students who have received credit for EXCI 423 may not take this course for credit.

KCEP 349 ***Assessment, Interpretation, and Rehabilitation in Neuromuscular Physiology*** (3 credits)

Prerequisite: KCEP 311 previously or concurrently; enrolment in the KCEP or Honours in KCEP. This course focuses on the assessment and rehabilitation of neurological, neuromuscular, and musculoskeletal fitness in the clinical setting. Measurement and interpretation of normal and abnormal responses for individuals with common neurological, neuromuscular and musculoskeletal diseases and disabilities are discussed and performed. Lectures and laboratory.

NOTE: Students who have received credit for EXCI 380 may not take this course for credit.

KCEP 383 ***Kinesiology and Clinical Exercise Physiology Internship I*** (3 credits)

Prerequisite: Enrolment in the KCEP or Honours in KCEP. This course provides students the opportunity to observe and participate in physical activity programming offered for special populations (i.e. persons with neurological and physical impairments) in a supervised setting. This course involves a commitment of at least 200 hours including a weekly seminar.

NOTE: Students who have received credit for EXCI 383 may not take this course for credit.

KCEP 411 ***Pathophysiology in Clinical Exercise Science II*** (3 credits)

Prerequisite: Enrolment in the KCEP, Honours in KCEP, BScAT, or Honours in Athletic Therapy; successful completion of Stage II in the KCEP, Honours in KCEP, BScAT, or Honours in Athletic Therapy. This course reviews pathophysiology, medical intervention techniques, and medication profiles of the most common cardiovascular, respiratory, oncologic and metabolic diseases. Lectures only.

NOTE: Students who have received credit for EXCI 422 may not take this course for credit.

KCEP 449 ***Physical Fitness Assessment, Exercise Prescription and Rehabilitation in Special Populations*** (3 credits)

Prerequisite: Enrolment in the KCEP or Honours in KCEP; successful completion of Stage II in the KCEP or Honours in KCEP. This course focuses on the assessment of cardiorespiratory fitness and body composition in a clinical setting. Measurement and interpretation of normal and abnormal responses for individuals with the most common cardiovascular, respiratory, oncologic, and metabolic diseases are performed and discussed. Lectures and laboratory.

NOTE: Students who have received credit for EXCI 450 may not take this course for credit.

KCEP 483 ***Kinesiology and Clinical Exercise Physiology Internship II*** (3 credits)

Prerequisite: Enrolment in the KCEP or Honours in KCEP; successful completion of Stage II in the KCEP or Honours in KCEP. The course offers a supervised period of work as activity leader/exercise specialist in a hospital or rehabilitation centre assisting in performing physiological evaluations, designing exercise programs, and animating physical activities. The course involves a commitment of at least 200 hours including a weekly seminar.

NOTE: Students who have received credit for EXCI 483 may not take this course for credit.

Faculty

Chair

CRAIG TOWNSEND, PhD *Murdoch University*; Associate Professor

Distinguished Professors Emeriti

BRIAN SLACK, PhD *McGill University*

PATRICIA THORNTON, PhD *University of Aberdeen*

Professors

PASCALE BIRON, PhD *Université de Montréal*

DAMON MATTHEWS, PhD *University of Victoria*; Provost's Distinction

MONICA MULRENNAN, PhD *University College Dublin*

ALAN E. NASH, PhD *University of Cambridge*

NORMA RANTISI, PhD *University of Toronto*

Associate Professors

SEBASTIEN CAQUARD, PhD *Université Jean Monnet de Saint-Etienne*

PIERRE GAUTHIER, PhD *McGill University*

KEVIN GOULD, PhD *University of British Columbia*

JOCHEM JAEGER, Dr.Sc.Nat *ETH Zurich (Swiss Federal Institute of Technology)*

ZACHARY PATTERSON, PhD *McGill University*

TED RUTLAND, PhD *University of British Columbia*

Assistant Professors

BENGI AKBULUT, PhD *University of Massachusetts Amherst*

SILVANO DE LA LLATA, PhD *Cornell University*

YOUJUNG KIM, PhD *Texas A&M University*

ANGELA KROSS, PhD *McGill University*

ALEXANDRA LESNIKOWSKI, PhD *University of British Columbia*

NALINI MOHABIR, PhD *University of Leeds*

JEANNINE-MARIE ST. JACQUES, PhD *Queen's University*

SARAH TURNER, PhD *University of Calgary*

Affiliate Professor

URSULA EICKER, PhD *Heriot-Watt University*

Affiliate Assistant Professors

JAMES FREEMAN, PhD *University of California, Berkeley*

SHAUNA JANSSEN, PhD *Concordia University*

AMY LUERS, PhD *Stanford University*

JULIE PODMORE, PhD *McGill University*

AMY TWIGGE MOLECEY, PhD *INRS*

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus

Hall Building, Room: H 1255-26

514-848-2424, ext. 2050

Department Objectives

The Department of Geography, Planning and Environment focuses on the processes and practices of human intervention in the natural, cultural, and built environment. Human interventions are examined as cultural and political processes across the spectrum of biophysical settings and human settlements. The Department's aim is to provide a systematic understanding of biogeophysical environmental processes and human-environment interactions as a step towards improving policies, practices, and specific

interventions. The curriculum reflects a balance among theoretical, technical, and applied aspects, and promotes environmental and spatial awareness and literacy. The Department aims to train professional geographers, environmental scientists, and urban planners, as well as to produce articulate and informed graduates who are committed to improving the quality and sustainability of the natural, human, and built environment.

Programs

The Department offers honours, specialization, and major programs leading to a BA in the Human Environment, a BA in Urban Planning or Urban Studies, and a BSc leading to an honours and specialization in Environmental and Sustainability Science or a major in Environmental Geography. In addition, it offers minor and certificate programs in Geospatial Technologies, and minors in the Human Environment, in Environmental Geography and in Urban Studies. Students wishing to follow a BSc must meet the entry profile for that program (see §31.002 — Programs and Admission Requirements — Profiles).

It is strongly recommended that students planning graduate studies follow the appropriate honours or specialization program. In addition to meeting the Faculty requirements (see §31.003 Honours Programs, Honours Regulations), the Department requires a statement of intent for students seeking admission to the honours program which specifies the proposed topic and supervisor for the Honours Essay (GEOG 491 or URBS 491).

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

60 BA Honours in the Human Environment

Stage I

15 GEOG 220³, 260³, 272³, 274³, 290³

3 Chosen from GEOG 210³; GEOL 210³; URBS 230³

Stage II

12 GEOG 315³, 361³, 362³, 363³

12 Chosen from two groups of electives (with at least three credits from each group)

Group 1: GEOG 310³, 321³, 323³, 330³, 355³, 380³

Group 2: GEOG 371³, 374³, 375³, 377³, 378³

Stage III

12 Elective credits in Geography at the 400 level

6 GEOG 491⁶

60 BA Specialization in the Human Environment

Stage I

15 GEOG 220³, 260³, 272³, 274³, 290³

3 Chosen from GEOG 210³; GEOL 210³; URBS 230³

Stage II

12 GEOG 315³, 361³, 362³, 363³

12 Chosen from two groups of electives (with at least three credits from each group)

Group 1: GEOG 310³, 321³, 323³, 330³, 355³, 380³

Group 2: GEOG 371³, 374³, 375³, 377³, 378³

Stage III

12 Elective credits in Geography at the 400 level

6 Elective credits in Geography at the 300 or 400 level

42 BA Major in the Human Environment

Stage I

15 GEOG 220³, 260³, 272³, 274³, 290³

3 Chosen from GEOG 210³; GEOL 210³; URBS 230³

Stage II

12 GEOG 315³, 361³, 362³, 363³

3 Chosen from GEOG 310³, 321³, 323³, 330³, 355³, 380³

3 Chosen from GEOG 371³, 374³, 375³, 377³, 378³

Stage III

6 Elective credits in Geography at the 400 level

30 Minor in the Human Environment

15 GEOG 220³, 260³, 272³, 274³, 290³

3 GEOG 315³

12 GEOG elective credits at the 300 or 400 level

NOTE: This minor is intended for Arts students.

69 BSc Honours in Environmental and Sustainability Science

33 Credits of core courses:

9 BIOL 225³, 226³; GEOG 290³

3 GEOG 264³

- 6 GEOG 272³; GEOL 210³
- 6 CHEM 212³ or 217³; CHEM 283³
- 6 BIOL 322³; GEOG 363³
- 3 GEOG 487³
 - 36 Credits in Earth Systems and Climate Science Stream:*
- 9 GEOG 375³, 377³, 378³
- 6 Chosen from BIOL 351³, 353³; CHEM 234³; CIVI 361^{3.5*}; GEOG 355³, 371³, 374³; GEOL 216³, 302³
- 3 GEOG 463³ or 465³
- 12 Chosen from BIOL 457³, 459³; CHEM 458³; CIVI 467³, 468³, 469^{3.5}; GEOG 407³, 467³, 470³, 475³, 476³, 478³, 479³; GEOL 440³
- 6 GEOG 491⁶

*Environmental and Sustainability Science students missing the prerequisites may apply to have all or some of these waived by the Department of Building, Civil and Environmental Engineering.

63 BSc Specialization in Environmental and Sustainability Science

33 Credits of core courses:

- 9 BIOL 225³, 226³; GEOG 290³
- 3 GEOG 264³
- 6 GEOG 272³; GEOL 210³
- 6 CHEM 212³ or 217³; CHEM 283³
- 6 BIOL 322³; GEOG 363³
- 3 GEOG 487³
 - 30 Credits in Earth Systems and Climate Science Stream:*
- 9 GEOG 375³, 377³, 378³
- 6 Chosen from BIOL 351³, 353³; CHEM 234³; CIVI 361^{3.5*}; GEOG 355³, 371³, 374³; GEOL 216³, 302³
- 3 GEOG 463³ or 465³
- 12 Chosen from BIOL 457³, 459³; CHEM 458³; CIVI 467³, 468³, 469^{3.5}; GEOG 407³, 470³, 475³, 476³, 478³, 479³; GEOL 440³

*Environmental and Sustainability Science students missing the prerequisites may apply to have all or some of these waived by the Department of Building, Civil and Environmental Engineering.

45 BSc Major in Environmental Geography

Stage I

- 15 GEOG 220³, 260³, 272³, 274³, 290³
- 3 GEOL 210³
- 3 Chosen from BIOL 225³, 226³, 227³
 - Stages II & III*
- 9 GEOG 361³, 362³, 363³
- 15 300- or 400-level credits chosen from the BSc Geography/Geology course list or in consultation with the appropriate departmental advisor. At least three credits must be at the 400 level.

24 Minor in Environmental Geography

- 6 Chosen from GEOG 272³, 274³; GEOL 210³
- 3 GEOG 290³
- 9 Chosen from GEOG 363³, 371³, 374³, 375³, 377³, 378³; GEOL 302³, 331³
- 6 Chosen from GEOG 458³, 463³, 466³, 470³, 474³, 475³, 478³; GEOL 415³, 440³

NOTE: This minor is intended for Science students.

24 Minor in Geospatial Technologies

- 3 Chosen from GEOG 210³, 220³, 310³, 330³; URBS 230³
- 6 GEOG 260^{3*}, 466³
- 6 GEOG 264³, 363³ or URBS 335^{3**}
- 9 Chosen from GEOG 463³, 464³, 465³; URBS 434³

* For students who have already completed GEOG 260 as a requirement for their BA or BSc program, this course is replaced with URBS 434.

**For students who have already completed GEOG 363 or URBS 335 as a requirement for their BA or BSc program, this course is replaced with any 300- or 400-level GEOG or URBS course.

30 Certificate in Geospatial Technologies

- 3 Chosen from GEOG 210³, 220³; URBS 230³
- 6 GEOG 260³, 466³
- 9 GEOG 264³, 362³, 363³
- 12 GEOG 463³, 464³, 465³; URBS 434³

Students in programs leading to the BSc degree may take the courses in Geography/Geology listed below for credits to be applied to their program of concentration.

GEOG 260	Mapping the Environment (3 credits)
GEOG 264	Programming for Environmental Sciences (3 credits)
GEOG 272	The Natural Environment: Air and Water (3 credits)
GEOG 274	The Natural Environment: Land and Life (3 credits)
GEOG 361	Research Design and Qualitative Methods (3 credits)
GEOG 362	Statistical Methods (3 credits)
GEOG 363	Geographic Information Systems (3 credits)
GEOG 371	Landscape Ecology (3 credits)
GEOG 374	Plant Ecology (3 credits)
GEOG 375	Hydrology (3 credits)
GEOG 377	Landform Evolution (3 credits)
GEOG 378	The Climate System (3 credits)
GEOG 458	Environmental Impact Assessment (3 credits)
GEOG 463	Advanced Geographic Information Systems (3 credits)
GEOG 464	Programming for Geospatial Technologies (3 credits)
GEOG 465	Remote Sensing (3 credits)
GEOG 466	Geomedia and the Geoweb (3 credits)
GEOG 470	Environmental Management (3 credits)
GEOG 473	Environment and Health (3 credits)
GEOG 474	Sustainable Forest Management (3 credits)
GEOG 475	Water Resource Management (3 credits)
GEOG 478	Climate Change: Science, Impacts and Policy (3 credits)
GEOL 210	Introduction to the Earth (3 credits)
GEOL 216	Field Methods (3 credits)
GEOL 302	Palaeobiology (3 credits)
GEOL 331	Evolution of the Earth (3 credits)
GEOL 415	Plate Tectonics and Crustal Evolution (3 credits)
GEOL 440	Seminar in Current Research on Environmental Earth Science (3 credits)

Courses

Geography

GEOG 200 **World Geography** (3 credits)

This course provides an overview of world geography. It first examines the main environmental and social factors that geographers have employed to divide the world into a series of distinctive regions, and uses examples of specific countries to explore the distinctive geographical processes by which these patterns are transformed and perpetuated.

NOTE: Students currently registered in a Human Environment, Environmental Geography, or Environmental and Sustainability Science program may not take this course for credit.

GEOG 203 **Canadian Environmental Issues** (3 credits)

This course examines the diversity and complexity of Canadian environmental issues from an interdisciplinary perspective. Natural science considerations are explored as well as the relationship of scientific understanding to policy and wider social action. Issues addressed include fisheries, animal rights, biodiversity conservation, protected areas, energy, and climate change.

NOTE: Students currently registered in a Human Environment, Environmental Geography, or Environmental and Sustainability Science program may not take this course for credit.

GEOG 204 **Global Environmental Issues** (3 credits)

This course examines a number of global environmental issues from an interdisciplinary perspective. The complex interactions and interdependences among the biophysical, socio-economic, political, and cultural aspects of global environmental change are explored in relation to issues such as global warming, desertification, deforestation, declining biodiversity, and acid rain.

NOTE: Students currently registered in a Human Environment, Environmental Geography, or Environmental and Sustainability Science program may not take this course for credit.

GEOG 206 **Maps and Mapping** (3 credits)

This course explores the role of maps in society. Students are introduced to basic mapping concepts in order to evaluate the meaning and use of various types of maps. Samples of the following types of maps are studied: historic maps, political maps, cognitive maps, maps in newspapers and magazines, computer-generated maps, and maps on television.

NOTE: Students who have completed courses numbered GEOG 209 and above may not take GEOG 200-208 for credit.

GEOG 209 **The Geography of a Selected Region** (3 credits)

The course includes both a systematic survey as well as an in-depth focus on particular geographical issues and problems. The specific region to be studied may vary from year to year.

GEOG 210 *Geography of Global Change* (3 credits)

This course examines a variety of geographical changes related to globalization. It focuses mainly on the global political system and the global economy, and also considers transport and communications systems, culture, and environmental issues.

GEOG 220 *Place, Space, and Identity* (3 credits)

This course examines how place is constructed through subjective encounters of humans with each other and with the non-human world. This focus reveals how the unique and contested identities of places are created and how space itself is socially constructed. The ways in which place, space and identity affect and are affected by political, economic, cultural and environmental changes are then examined within the context of existing patterns of geographical unevenness.

GEOG 260 *Mapping the Environment* (3 credits)

This course introduces students to the basic concepts, theory, and methods of mapping with reference to topographic and thematic maps. Through lectures, laboratories, and practical assignments, students learn about the sources of data for maps, and how these data are manipulated, represented, and interpreted in both analog and digital form (Geographic Information Systems). Lectures and laboratory.

GEOG 264 *Programming for Environmental Sciences* (3 credits)

This course is an introduction to the fundamentals of computer programming relevant for environmental sciences. It presents the basic building blocks of computer programming, including data types, variables and constants; expressions and operators; assignments, control structures, simple library functions and programmer-defined functions. Students learn how to develop algorithms and how to convert algorithms/pseudo codes into a programming language — specific syntax (e.g. R, Python) — to collect, query, preprocess, visualize and analyze environmental datasets. Lectures and laboratory.

NOTE: Students who have received credit for STAT 280 or for this topic under a GEOG 298 number may not take this course for credit.

GEOG 272 *The Natural Environment: Air and Water* (3 credits)

This course introduces the Earth's atmosphere and hydrosphere through an examination of their structural components, processes, and variability through space and time. Topics include the global energy system, air temperature cycles, weather systems, urban climate, the water cycle, oceans, lakes, and rivers.

GEOG 274 *The Natural Environment: Land and Life* (3 credits)

This course introduces the Earth's lithosphere and biosphere through an examination of their structural components, processes, and variability through space and time. Topics include the tectonic system, volcanic activity, landscape and landform development, soils, biogeochemical cycling, succession, and biomes.

GEOG 290 *Environment and Society* (3 credits)

Prerequisite: Enrolment in a BA Human Environment or BSc Environmental Geography or BSc Environmental and Sustainability Science program, or permission of the Department. Relations between the environment and society both preserve and threaten the more-than-human world. Drawing on vibrant contributions from geographical and interdisciplinary fields, this course introduces concepts and frameworks for clarifying and interrogating existing environment-society relations and for imagining possible alternatives. Topics may include nature/culture divide, alternative ideas of nature, historical dimensions of current environment-society relations, the role of experts and expertise in contemporary society, the impact of unequal distributions of political power on people and the environment, and possibilities for hope in troubled times. Writing tutorials linked to the course assignments help students learn university-level academic writing and critical thinking skills. Lectures and tutorials.

GEOG 298 *Selected Topics in Geography* (3 credits)**GEOG 299 *Selected Topics in Geography*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule and the Geography Course Guide.

GEOG 301 *The Sustainable University Campus* (3 credits)

Prerequisite: 30 university credits or permission of the Department. With the campus as the laboratory, this course explores and contributes to building a more sustainable campus community. It is designed to support Concordia's commitment to sustainability while providing students with an applied learning experience. Students gain experience in planning and implementing interdisciplinary research projects using a variety of qualitative and quantitative techniques. They learn about participatory action research, the application of sustainability concepts in a living and learning organization, and work in teams to develop creative and actionable projects that contribute to moving the University in a more sustainable direction. The course integrates theory and practice. The Concordia Campus Sustainability Assessment as well as recent literature and case studies from the sustainability assessment and reporting fields form the theoretical foundations of the course. The course uses lectures, guest speakers, workshops, and project work as learning tools.

NOTE: Students who have received credit for this topic under a GEOG 398 number may not take this course for credit.

GEOG 310 *Refugees and Migration in Today's World* (3 credits)

Prerequisite: GEOG 220; or completion of 30 credits for students enrolled in a Social Science program; or permission of the Department. This course examines key issues in human displacement through refugee movements and migrations. Geographies of displacement centre around questions of human rights, nation-state and the politics of belonging, as well as exile/home. While

displacement is often framed as a political or humanitarian crisis, it also raises important issues regarding citizenship and exclusion, shelter and sanctuary, movement and confinement. This course offers geographic approaches to understanding how people experience displacement, as well as how displacement is managed at a policy level and/or represented in discourse.

GEOG 315 *Social and Cultural Geographies* (3 credits)

Prerequisite: GEOG 220, 290. The field of social and cultural geography explores how social difference (e.g. race, gender, sexuality, class, disability, migrant status) and cultural representations (e.g. ideas of heritage, consumerism, colonialism, arts, aesthetics, or home) interact with space and place. This course examines processes such as the legitimization of social structures and experience, struggles over identity and memory, contestations of cultural meaning, and resistance to power. This is a field that asks — how does geography help imagine an alternative future?

NOTE: Students who have received credit for GEOG 300 may not take this course for credit.

GEOG 321 *A World of Food* (3 credits)

Prerequisite: 24 university credits. This course examines the geographical processes that have affected the production and consumption of food from the beginnings of agriculture to the rise of genetically modified organisms, and considers the part played by different patterns of diet and cuisine in shaping distinctive regions at the global and local scale.

NOTE: Students who have received credit for this topic under a GEOG 398 number may not take this course for credit.

GEOG 323 *(also listed as URBS 337)*

Urban Agriculture (3 credits)

Prerequisite: GEOG 220 or URBS 230 or permission of the Department. This course examines the history and practice of producing food in cities. Students will explore the tensions between the politics, economies and ecologies that organize urban food production and the everyday ways people raise and access food in varied urban contexts. The course also critically evaluates food-based social movements: their limits, possibilities and connections to wider struggles for socio-economic justice.

NOTE: Students who have received credit for URBS 337 or for this topic under a GEOG 398 or URBS 398 number may not take this course for credit.

GEOG 330 *Urban Geography* (3 credits)

Prerequisite: GEOG 220 or permission of the Department. The geographer's view of the city is explored at two scales: cities as elements of an urban system, including topics such as urbanization and the functional structure of cities; and intra-urban patterns, including the spatial arrangement of land-use and social areas.

GEOG 333 *(also listed as URBS 310)*

Urban Transportation (3 credits)

Prerequisite: GEOG 220 or URBS 230 or permission of the Department. This course examines the past evolution and recent functioning of various transport modes in cities around the world. Recent debates about desirable levels of car, transit, and non-motorized modes feature prominently. Techniques of analyzing urban transport and public policy options are considered in light of burgeoning concerns about sustainable development and the worldwide growth of motorization.

NOTE: Students who have received credit for URBS 310 may not take this course for credit.

GEOG 342 *The Making of the Irish Landscape* (3 credits)

Prerequisite: Second-year standing or permission of the Department. This course focuses on the evolution of the Irish landscape and examines the physical, political, social, economic and attitudinal processes that have shaped the cultural landscape from prehistoric times to the present.

NOTE: Students who have received credit for this topic under a GEOG 398 number may not take this course for credit.

GEOG 355 *Resource Analysis and Management* (3 credits)

Prerequisite: GEOG 290 or permission of the Department. The course is concerned with the use of the Earth's natural resources and with the economic, institutional, and ecological factors that affect, condition, and control the use of these resources. It examines various approaches to analyzing, evaluating, and resolving resource issues and conflicts. These approaches are applied to Canadian forestry, fisheries, water, energy, and mineral resources.

GEOG 361 *Research Design and Qualitative Methods* (3 credits)

Prerequisite: GEOG 260 or permission of the Department. This course introduces students to commonly employed methods and techniques for undertaking social science research. After reviewing the philosophical considerations underlying particular research traditions and the merits and limitations of distinct types of research strategies, the course examines specific sets of methods and the kinds of questions and research topics for which they are best suited. The focus is on qualitative methods but also examines the complementarity of qualitative and quantitative techniques and the broader research designs in which quantitative techniques can be employed. Readings are supplemented with in-class and field exercises. Occasional involvement in fieldwork outside of class time is required.

NOTE: Students who have received credit for GEOG 360 may not take this course for credit.

GEOG 362 *Statistical Methods* (3 credits)

Prerequisite: GEOG 361 or permission of the Department. This course introduces statistical methods for geographers. Topics include sampling, data manipulation, probability distributions, statistical inference, hypothesis testing, correlation and regression. Lectures and laboratory.

NOTE: Students who have received credit for BIOL 322, COMM 215, ECON 221, GEOG 360, INT 296, MAST 221 or 333, PSYC 315, SOCI 213 or STAT 249 may not take this course for credit.

GEOG 363 (also listed as URBS 335)**Geographic Information Systems** (3 credits)

Prerequisite: GEOG 260 or permission of the Department. This course is an introduction to current theoretical and practical approaches to Geographic Information Systems (GIS) through which students acquire basic skills and understanding in the use of GIS for spatial analysis. Training is centred on a series of practical assignments using ArcGIS software and for the term project, students explore the potential of GIS for addressing a real-world problem. Lectures and laboratory.

NOTE: Students who have received credit for URBS 335, 387, or 487 may not take this course for credit.

GEOG 371 Landscape Ecology (3 credits)

Prerequisite: GEOG 272; GEOG 274 or GEOL 210. The objective of this course is to combine perspectives and principles originating in ecology and geography for application in conservation, restoration, and more sustainable land use. Students examine how natural processes and human activities interact and contribute to landscape change, and how landscape patterns influence the abundance and distribution of plants and animals. Topics include natural processes such as fire, water, and the movement of organisms; human activities such as transportation infrastructure and urban development; and methods for analyzing landscape structure such as patches, corridor networks, and landscape metrics. Lectures and laboratory.

GEOG 374 Plant Ecology (3 credits)

Prerequisite: GEOG 272; GEOG 274 or GEOL 210. This course examines plant community dynamics as a consequence of the population dynamics of the constituent plant species. The role of natural disturbances is stressed, particularly as it relates to forests. Concepts are applied to problems in park management, vegetation mapping, and present controversies about the maintenance of species diversity. Lectures and laboratory with a mandatory one-day field trip.

NOTE: Students who have received credit for GEOG 372 or 373 may not take this course for credit.

GEOG 375 Hydrology (3 credits)

Prerequisite: GEOG 272, 274; or permission of the Department. The course examines the hydrologic cycle, with a main focus on surface hydrology. Topics covered include the organization of the river network, precipitation over a watershed, runoff, flood frequency analysis, estimation of peak streamflows, flow, and sediment transport in rivers. Assignments provide experience in the practical aspects of hydrological data treatment using Canadian examples. The course aims at understanding the mechanics of processes governing the motion of water on hillslopes and in rivers, which are essential to water management. Lectures and tutorial.

GEOG 377 Landform Evolution (3 credits)

Prerequisite: GEOG 272; GEOG 274 or GEOL 210; or permission of the Department. This course examines the processes responsible for the development and evolution of the Earth's landforms, including human modifications to those landforms. Topics include the study of fluvial, coastal, glacial, periglacial, and arid landforms. Lectures and laboratory.

NOTE: Students are strongly encouraged to take GEOL 210.

GEOG 378 The Climate System (3 credits)

Prerequisite: GEOG 272; GEOG 274 or GEOL 210; or permission of the Department. This course examines the interacting components of the climate system (atmosphere, ocean, ice, land and vegetation) and the key features of the present-day weather and climate systems; including a focus on how the climate system has changed in the past, and the processes, both natural and human-induced, which drive and moderate these changes. Methods used to reconstruct past climate changes, and the use of climate models to understand climate system interactions and change are discussed. Lectures and laboratory.

GEOG 380 Ecological Economics (3 credits)

Prerequisite: GEOG 210 or GEOG 290; or ECON 201, 203. This course provides an introduction to economic perspectives on environmental issues. It is designed to study the interplay between the economic sphere and the environment by addressing questions of economic life, such as activities of corporations and states, role of markets, energy and resource use, growth and development, population, food, international trade and financial systems. These questions are explored through alternative economic approaches, among which the tradition of ecological economics is the centrepiece.

GEOG 398 Selected Topics in Geography (3 credits)**GEOG 399 Selected Topics in Geography** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule and Geography Course Guide.

GEOG 406 Tropical Forests (3 credits)

Prerequisite: GEOG 374 or permission of the Department. This course focuses on three themes: how tropical forest ecosystems function and change; the causes and consequences of deforestation and faunal impoverishment; and the ecological and sociological problems faced by conservationists in the tropics.

GEOG 407 Indigenous Peoples and the Environment (3 credits)

Prerequisite: GEOG 315 or permission of the Department. This course provides an extended, in-depth exploration of the relationships and roles of Indigenous peoples with respect to their traditional territories and natural resources. Indigenous ontologies and epistemologies are highlighted in addition to Indigenous aspirations and approaches for use and stewardship of the environment. The course examines theoretical and case-study literature, with a broad regional focus on Aboriginal peoples in Canada while also drawing from comparative international experiences of Indigenous peoples.

GEOG 418 *Geographies of Postcolonialism* (3 credits)

Prerequisite: GEOG 315 or permission of the Department. Based largely on scholarship about the Americas, this course introduces students to theories of the colonial present and traces geographies of a variety of contemporary colonial processes and anti-colonial struggles.

NOTE: Students who have received credit for this topic under a GEOG 498 number may not take this course for credit.

GEOG 430 *(also listed as URBS 420)****Social Geographies of Montreal*** (3 credits)

Prerequisite: GEOG 315 or 330; or permission of the Department. This course explores the social and cultural geographies of Montreal with particular emphasis on how the spatial distribution of communities influences urban planning and public policy at the local and regional levels. Complex webs of identities and solidarities informed by socio-economic, linguistic, ethno-cultural, and sexual orientation factors shape the city living experience of individuals and populations alike. Through lectures, discussions, assignments and field trips, students are introduced to a variety of analytical perspectives that investigate the socio-cultural dynamics that contribute to shaping urban settlements, human-environment interactions and local social networks.

NOTE: Students who have received credit for URBS 420 may not take this course for credit.

GEOG 431 *(also listed as URBS 481)****Urban Planning in the Developing World*** (3 credits)

Prerequisite: GEOG 330 or URBS 380 or permission of the Department. This course explores the growth and planning of large metropolitan areas in developing nations. Issues and problems associated with recent urbanization are examined along with potential solutions offered by urban planning and public policies. The planning roles of institutions, including governments, multilateral development agencies, and non-governmental organizations, are reviewed.

NOTE: Students who have received credit for URBS 481 may not take this course for credit.

GEOG 435 *Transportation Impact Assessment* (3 credits)

Prerequisite: URBS 310 or GEOG 333; URBS 335 or GEOG 363; or permission of the Department. This course introduces students to the quantitative analysis of the environmental (e.g. emissions) and social impacts (e.g. accessibility) of transportation system interventions. Students are introduced to, and gain hands-on experience with, the traditional transportation planning and modelling process aided by the use of a Geographic Information System (GIS)-based transportation decision aid tool. A real-world case-study region and transportation system are used to illustrate the different elements of the planning and modelling process and how this can be used in impact assessment. Lectures and laboratory.

NOTE: Students who have received credit for URBS 435 or for this topic under a GEOG 498 or URBS 498 number may not take this course for credit.

GEOG 440 *Geography and Public Policy* (3 credits)

Prerequisite: 33 credits in Geography or permission of the Department. This course examines the relationship between geographical approaches to problems and issues, and the public policy process. It discusses such topics as the relevance of geographical information and geographical research to policy makers, the need for assessment of the spatial and environmental impact of public policies, and the role of geographers in the public policy process.

GEOG 450 *(also listed as URBS 450)****Economic Restructuring*** (3 credits)

Prerequisite: GEOG 330 or GEOG 380 or URBS 380 or permission of the Department. This course examines the nature of economic restructuring in late capitalism and the implications that industrial restructuring trends are having for the geography of industries, the structure of firms, workplace relations and workers' rights. It examines the new challenges that restructuring presents for both economic development prospects and labour market policies, as well as looking at contemporary initiatives to promote more socially and environmentally sustainable development paths.

NOTE: Students who have received credit for URBS 450 may not take this course for credit.

GEOG 458 *Environmental Impact Assessment* (3 credits)

Prerequisite: GEOG 355 or permission of the Department. This course examines the conceptual bases, procedures, and methodology of Environmental Impact Assessment (EIA). The effectiveness of EIA as a decision-making process in the promotion of good environmental planning is analyzed, including its role in assessing the potential effects of certain activities on the natural environment as well as on social, cultural, and economic aspects of the environment.

GEOG 463 *Advanced Geographic Information Systems* (3 credits)

Prerequisite: GEOG 363 or URBS 335; or permission of the Department. This course focuses on database structure and management as well as advanced spatial analysis techniques. It considers both practical and theoretical questions of interpretation of GIS in the context of particular problems and real data sets. The course involves hands-on use of ArcGIS software in a laboratory setting. Lectures and laboratory.

GEOG 464 *Programming for Geospatial Technologies* (3 credits)

Prerequisite: GEOG 264, 363; or permission of the Department. This course introduces students to the world of programming for geospatial technologies and web mapping. Through a review of the main concepts, techniques, standards, libraries and languages, students learn how to use programming to improve the geospatial data analysis process and to design maps that enhance the user's experience. Training is centred on programming languages for Geographical Information System (GIS) applications (e.g. Python) as well as for web mapping (e.g. HTML, CSS and JavaScript). These languages are used to automate workflows for GIS analysis and customize stylistic and meaningful online maps. Lectures and laboratory.

GEOG 465 *Remote Sensing* (3 credits)

Prerequisite: GEOG 363 or URBS 335, or permission of the Department. This course provides basic knowledge about the theory and practice of remote sensing, its potential and limits. The course is divided in five parts: 1) fundamentals of remote sensing, where the physical basis of remote sensing is explained; 2) sensors and orbits (different types of sensors, passive, active, and thermal sensors); 3) digital image processing, looking at image enhancement, filtering, classification, and how to obtain thematic data from raw imagery; 4) applications of remote sensing such as forestry, urban studies, water pollution, and agriculture; and 5) problems and challenges associated with remote sensing. Practical examples for all these topics will be covered in the laboratory sessions. Lectures and laboratory.

GEOG 466 *Geomedia and the Geoweb* (3 credits)

Prerequisite: GEOG 363 or URBS 335; or permission of the Department. This course introduces students to geospatial technologies that have dramatically changed the way one interacts with the environment. Students acquire the geovisualization skills required to design meaningful maps in the context of the Geoweb, and are exposed to the growing body of literature that critically envisions the socio-political dimensions of these new forms of cartographic expression. Lectures and laboratory.

GEOG 467 *Environmental Modelling* (3 credits)

Prerequisite: GEOG 362 or BIOL 322; enrolment in the BSc Honours in Environmental and Sustainability Science or BA Honours in Human Environment; permission of the Department. The different approaches to modelling the biophysical, built, or human environment are examined. The conceptualization of simple models to examine how human interventions affect the environment is investigated. Different modelling approaches such as system models, computer visualization and simulation are covered. Students develop a model scheme related to a topic of interest. Lectures and laboratory.

NOTE: Students who have received credit for this topic under a GEOG 498 number may not take this course for credit.

GEOG 470 *Environmental Management* (3 credits)

Prerequisite: GEOG 375 or 377, or permission of the Department. This course provides students with an understanding and appreciation of the field of environmental management and its contribution to addressing the impacts of human activities on the natural environment. Assessment of the limitations associated with conventional command-and-control approaches to environmental management are considered. The course also focuses on emerging concepts and frameworks associated with a recent rethinking of environmental management approaches, including complex adaptive systems, social-ecological systems, and resilience.

GEOG 473 *Environment and Health* (3 credits)

Prerequisite: 48 credits completed in the Human Environment, Environmental Geography, or Environmental and Sustainability Science program or permission of the Department. This course examines geographical approaches to the study of health, focusing on the investigation of spatial variations in disease incidence, the ecology of selected diseases, and the links between health and the biophysical, social, and built environment. Focus is placed on critical examinations of approaches and methods of explanation.

GEOG 474 *Sustainable Forest Management* (3 credits)

Prerequisite: GEOG 374 or permission of the Department. This course looks at changes in the exploitation and sustainable management of the forest resource in Canada and the United States. Topics include the evolution of harvesting strategies and their effect on species composition; the effects of technological changes in cutting, transportation, and milling on forests; and the recent evolution of the tension between environmentalists and foresters. There is a mandatory field trip.

GEOG 475 *Water Resource Management* (3 credits)

Prerequisite: GEOG 355; GEOG 375 or 377; or permission of the Department. This course examines the complexity of, and necessity for, better water resource management from the viewpoint of ecological and economic sustainability as well as social equity and basic human health and dignity. Topics include the qualities, values, and uses of water — consumptive and non-consumptive, economic and environmental; major regional and global water management issues; factors affecting water supply reliability and challenges to maintain and improve long-term quality and equitable service in different situations; and the ways domestic, industrial, and agricultural water users can conserve water.

NOTE: Students who have received credit for this topic under a GEOG 498 number may not take this course for credit.

GEOG 476 *Indigenous and Environmental History of Americas since 1492* (3 credits)

Prerequisite: GEOG 371, 374, 375, 377, 378; or permission of the Department. This course examines environmental changes that have taken place since 1492 as a result of the Columbian exchange of peoples, plants, animals and diseases between the New and Old World. It concentrates primarily on the Americas, but also touches upon Old World impacts.

NOTE: Students who have received credit for this topic under a GEOG 498 number may not take this course for credit.

GEOG 478 *Climate Change: Science, Impacts and Policy* (3 credits)

Prerequisite: GEOG 378 or equivalent; or permission of the Department. This course examines the science, impacts and policy options surrounding recent and future global climate change. The first part of the course focuses on the basic science of global warming including the greenhouse effect, climate models, and predictions of future climate change, and an assessment of possible climate impacts. The course concludes with an overview of potential solutions to climate change, including national and international climate policy, energy alternatives, and technological approaches to reducing human impacts on the climate system.

NOTE: Students who have received credit for this topic under a GEOG 498 number may not take this course for credit.

GEOG 479 *Primate Behaviour, Ecology and Conservation* (3 credits)

Prerequisite: GEOG 371, 374, 375, 377, 378; or permission of the Department. This course surveys the behaviour, ecology and conservation of non-human primates living in the world today. Using contemporary evolutionary theory as a lens, the course covers taxonomy, evolutionary history, research methods, social behaviour, life history and ecology with conservation of non-human primate populations running as a central theme.

NOTE: Students who have received credit for this topic under a GEOG 498 number may not take this course for credit.

GEOG 485 *Feminist Geographies* (3 credits)

Prerequisite: GEOG 315 or permission of the Department. This course analyzes gender and socio-spatial relations of power. Specifically, this course engages with feminist thought through its intersections with anti-racist, queer, and emancipatory geographies. This is a discussion-based seminar which includes personal reflection on space, identity and difference, resistance and agency, as well as broader global and historical contexts.

NOTE: Students who have received credit for this topic under a GEOG 498 number may not take this course for credit.

GEOG 487 *(also listed as BIOL 487 and GEOG 487)****Capstone Seminar in Environmental Science*** (3 credits)

Prerequisite: Completion of the core courses of the BSc Environmental and Sustainability Science. The course is designed to integrate the knowledge from several courses and provide students an opportunity to apply this knowledge to a current issue in environmental sciences through experiential learning. Students work in small groups made up from participants of all streams and critically evaluate an environmental issue using the expertise of all participants. Examples could be the reclamation of a former mining site, plans for expansion of a landfill or plans for a new water treatment plant. Aspects evaluated include, but are not limited to, land use, impact on vegetation and biota, availability of critical chemical data (e.g. trace metals, water/runoff quality, and impact on the local population). The result is a detailed environmental assessment report prepared by students.

NOTE: Students who have received credit for BIOL 487 or GEOG 487 may not take this course for credit.

GEOG 490 *Internship in Geography* (3 credits)

Prerequisite: Permission of the Department. Through a case study or practicum of 120 hours with a private or public institution, or community interest group, students acquire experience in a professional working environment.

GEOG 491 *(also listed as URBS 491)****Honours Essay*** (6 credits)

Prerequisite: Permission of the Department. The course requires the student to propose and conduct a research project and to produce a substantial report under the supervision of a faculty advisor.

GEOG 495 *Field Research* (3 credits)

Prerequisite: 30 program credits and permission of the Department. This course gives the student the experience of field research in human-environment interactions. The field excursion, often in combination with a local organization, is typically two or three weeks in duration.

GEOG 498 *Advanced Topics in Geography* (3 credits)**GEOG 499 *Advanced Topics in Geography*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule and Geography Course Guide.

Geology

GEOL 203 *Introduction to Environmental Geology* (3 credits)

Prerequisite: GEOL 210 recommended. Environmental geology is concerned with the physical, chemical, and biological processes that have acted, and continue to act, upon the planet, shaping its evolution. The course examines the interactions of lithosphere, mantle, core, biosphere, atmosphere, cryosphere, and hydrosphere. The Earth's climate is in part determined by these Earth system interactions, and climate change throughout the Earth's history is a central theme of the course.

GEOL 204 *Natural Disasters* (3 credits)

This course introduces students to natural disasters. Students gain an understanding of the geological and meteorological environments of the world that allow humans to plan for avoidance and mitigation of disasters. Topics may include plate tectonics, earthquakes, volcanoes, tsunamis, landslides and mudslides, hurricanes, floods, wildfires, ice storms, thunderstorms, and tornadoes.

NOTE: Students who have received credit for this topic under a GEOL 298 number may not take this course for credit.

GEOL 206 *Earthquakes, Volcanoes, and Plate Tectonics* (3 credits)

This course is for students with little or no previous background in the earth sciences, providing an up-to-date account of our present knowledge of earthquakes and volcanoes, and the use of this information in the development of the theory of plate tectonics. Areas of concentration are: nature, distribution, and causes of earthquakes and volcanic eruptions, measuring earthquakes, great earthquakes and volcanic eruptions in world history, products of volcanic eruptions, and hazards from, and prediction of, earthquakes and volcanic eruptions. The theory of plate tectonics and the evolution of mountain belts of the world are studied. Lectures only.

GEOL 208 *The Earth, Moon and the Planets* (3 credits)

The course emphasizes the cosmic perspective of the Earth and focuses attention on how the results of the last two decades of planetary exploration have brought about an intellectual revolution concerning the planets, especially their surface features, processes, and histories. Lectures only.

GEOL 210 *Introduction to the Earth* (3 credits)

This course provides an overview of the physical processes that govern how the Earth works. Topics include origin of the solar system and Earth; analysis of the internal structure of the Earth; minerals and rocks; igneous and metamorphic processes; deformation of the crust; surficial processes, including weathering, deposition and glaciation. The course culminates with the integration of these geological processes in the theory of plate tectonics, and goes on to examine the interactions of crust, mantle, atmosphere, and biosphere from this perspective. Laboratory work includes the identification of rocks and minerals, map exercises, and a field trip. Lectures and laboratory.

GEOL 216 *Field Methods* (3 credits)

Prerequisite: GEOL 210. The purpose of this course is twofold: to learn the basic methods that geologists, physical geographers, and environmental scientists use in the field (including learning how to map, measuring stratigraphic sections, and solving field problems based on observations) and to become familiar with the immediate geological environment of the Montreal region from the young Quaternary sediments, Mesozoic intrusive rocks and Paleozoic assemblages (including rocks of the St. Lawrence Lowlands) to the ancient Precambrian, crystalline basement. Two-week field school in the spring, immediately after the final examination.

GEOL 298 *Selected Topics in Geology* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule and Geography Course Guide.

GEOL 302 *Palaeobiology* (3 credits)

Prerequisite: GEOL 210. General discussion covers taphonomy, processes and patterns of evolution, extinction, ontogeny, palaeoecology and taxonomy. Systematics, morphology, biostratigraphic value of selected macro-invertebrate fossils will be included in the latter half of the course. Lectures and laboratory.

NOTE: Students who have received credit for GEOL 212 may not take this course for credit.

GEOL 331 *Evolution of the Earth* (3 credits)

Prerequisite: GEOL 210 or permission of the Department. The geological evolution of planet Earth is studied in the context of the theory of plate tectonics using interpretations of stratigraphic, structural, seismic, paleontologic, and geochronologic data. A systematic review of the geological evolution of the Earth and development of life forms is examined from the time of formation of the Earth to the present, including case studies of mountain belts. In the lab, rock suites and geological maps representative of different periods of Earth history are examined. Lectures and laboratory.

NOTE: Students who have received credit for GEOL 310 may not take this course for credit.

GEOL 398 *Selected Topics in Geology* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule and Geography Course Guide.

GEOL 414 *Undergraduate Research* (6 credits)

Prerequisite: For third-year honours students. Honours students in their final year are expected to show competence in isolating and examining a geological problem under the supervision of a faculty advisor. A written application to take the course, including a brief outline of the research project, must be made to the Department before April 15 of the second year. The application is reviewed by a committee and a decision forwarded by mail. The results of research must be presented in the form of an undergraduate thesis, two copies of which must be submitted by April 1.

NOTE: Written requests from specialization students, with appropriate academic records, to take the course will be considered.

GEOL 415 *Plate Tectonics and Crustal Evolution* (3 credits)

Prerequisite: GEOL 210; GEOL 331 or GEOG 377; or permission of the Department. Techniques of data collection in tectonics. Structure and rheology of the upper mantle. Tectonics of crustal types to include shields, platforms, passive continental margins, phanerozoic foldbelts, continental rifts, island-arc trench belts and oceanic rises, sea-floor spreading, plate tectonics, magma associations, and plate reconstructions. Crustal origin and growth. Lectures and laboratory.

NOTE: Students who have received credit for GEOL 315 may not take this course for credit.

GEOL 440 *Seminar in Current Research on Environmental Earth Science* (3 credits)

Prerequisite: GEOL 331 or GEOG 377, or 60 credits in an Engineering program, or permission of the Department. This course covers current research in environmental Earth science; topics vary from year to year, but will generally include: mantle-biosphere-atmosphere interactions, the carbon and methane cycles, and the geological climate record. Evaluation is based on seminar participation and written work.

NOTE: Students who have received credit for this topic under a GEOG or GEOL 498 number may not take this course for credit.

GEOL 498 *Advanced Topics in Geology* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule and Geography Course Guide.

31.130.1 URBAN PLANNING AND URBAN STUDIES

The Urban Planning and Urban Studies programs introduce students to past, present, and future processes of urbanization. Three programs (BA Major in Urban Studies, BA Honours in Urban Planning and BA Specialization in Urban Planning) share a common core of courses and offer students theoretical, analytical, and technical knowledge to comprehend complex urban dynamics. The programs prepare students for work in the professional planning, public policy, community development, and real estate fields. The Urban Planning programs are differentiated from Urban Studies by further skills training in the translation of theory into professional practice.

Programs

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

All course substitutions must be approved by an academic advisor. Students enrolled in the Major in Urban Studies, or other undergraduate programs in Arts and Science, seeking to transfer to the BA Specialization in Urban Planning normally request a transfer at the end of their first year, after completing a minimum of nine URBS credits. A minimum cumulative GPA of 3.0 is required to transfer.

63 BA Honours in Urban Planning

Stage I

12 URBS 230³, 240³, 250³, 260³

Stage II

15 URBS 333⁶, 335³, 362³, 393³

12 Chosen from GEOG 330³; URBS 300³, 310³, 337³, 338³, 380³; and up to 3 credits from ARTH 374³, POLI 349³

Stage III

12 URBS 433⁶, 491⁶

12 Chosen from URBS 420³, 434³, 435³, 450³, 460³, 480³, 481³, 486³, 488³, 490³, 495³; and up to 6 credits from GEOG 463³, 465³, 466³

60 BA Specialization in Urban Planning

Stage I

12 URBS 230³, 240³, 250³, 260³

Stage II

15 URBS 333⁶, 335³, 362³, 393³

12 Chosen from GEOG 330³; URBS 300³, 310³, 337³, 338³, 380³; and up to 3 credits from ARTH 374³, POLI 349³

Stage III

6 URBS 433⁶

15 Chosen from URBS 420³, 434³, 435³, 450³, 460³, 480³, 481³, 483³, 486³, 488³, 490³, 495³; and up to 6 credits from GEOG 463³, 465³, 466³

42 BA Major in Urban Studies

Stage I

12 URBS 230³, 240³, 250³, 260³

Stage II

9 URBS 300³, 335³, 362³

12 Chosen from GEOG 330³; URBS 310³, 337³, 338³, 380³, 393³; and up to 3 credits from ARTH 374³, POLI 349³

Stage III

9 Chosen from URBS 420³, 434³, 435³, 450³, 460³, 480³, 481³, 486³, 488³, 490³, 495³; and up to 3 credits from GEOG 463³, 465³, 466³

30 Minor in Urban Studies

6 URBS 230³, 240³

18 Chosen from GEOG 220³, 330³; URBS 250³, 260³, 300³, 310³, 337³, 338³, 380³, 393³

6 Chosen from URBS 420³, 434³, 435³, 450³, 460³, 480³, 481³, 486³, 488³, 490³

Courses

URBS 230 *Urbanization: Global and Historical Perspectives* (3 credits)

This course examines how and why cities grow and change over time. The relationships between socio-cultural, economic, and physical aspects of urban development are considered at the local, city, and regional scales.

URBS 240 *Planning* (3 credits)

This course examines the emergence and evolution of contemporary planning ideas within the broader historical context of 19th- and 20th-century city development. Special attention is given to how planning theories and practices have informed the development and management of urban, suburban and rural environments.

URBS 250 *Representation Methods in Urban Studies* (3 credits)

This course introduces students to theories and methods of graphic representation. It focuses on methods used to analyze and communicate data with an emphasis on spatial information on built and social environments. The representation methods include two- and three-dimensional views, cartography, as well as data visualization. Physical and digital tools are covered. Lectures and laboratory.

URBS 260 *Analytical Methods in Urban Studies* (3 credits)

This is an introduction to qualitative research skills associated with urban studies. The emphasis is on the use of data sources and collection techniques along with analytical procedures appropriate to questions of urban planning and public policy. Lectures and laboratory.

URBS 298 *Selected Topics in Urban Studies* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule and Geography Course Guide.

URBS 300 *Neighbourhood and Community Planning* (3 credits)

Prerequisite: GEOG 220 or URBS 230. This course examines theories, issues, and techniques of community-level planning in urban and suburban environments. Particular place-based or identity-based communities and their participation in planning processes are considered. Models of community change and local development are reviewed, along with the policies and supportive infrastructure in cities, including Montreal. Local governance, decision-making, and public participation are considered in light of municipal and regional institutions which currently predominate in Canada's metropolitan areas.

URBS 310 *(also listed as GEOG 333)****Urban Transportation*** (3 credits)

Prerequisite: GEOG 220 or URBS 230 or permission of the Department. This course examines the past evolution and recent functioning of various transport modes in cities around the world. Recent debates about desirable levels of car, transit, and non-motorized modes feature prominently. Techniques of analyzing urban transport and public policy options are considered in light of burgeoning concerns about sustainable development and the worldwide growth of motorization.

NOTE: Students who have received credit for GEOG 333 may not take this course for credit.

URBS 333 *Urban Laboratory* (6 credits)

Prerequisite: URBS 250 and 260; enrolment in the BA Honours in Urban Planning or BA Specialization in Urban Planning. With an emphasis on first-hand knowledge of an area-based problem, students study an urban problem and simulate solutions. Theory and case studies are used to develop appropriate interventions. Plans are prepared and, under the supervision of the professor, are evaluated by the peer group and experts in the field.

URBS 335 *(also listed as GEOG 363)****Geographic Information Systems*** (3 credits)

Prerequisite: URBS 250. This course is an introduction to current theoretical and practical approaches to Geographic Information Systems (GIS) through which students acquire basic skills and understanding in the use of GIS for spatial analysis. Training is centred on a series of practical assignments using ArcGIS software and for the term project, students explore the potential of GIS for addressing a real-world problem. Lectures and laboratory.

NOTE: Students who have received credit for GEOG 363 may not take this course for credit.

URBS 337 *(also listed as GEOG 323)****Urban Agriculture*** (3 credits)

Prerequisite: URBS 230 or GEOG 220 or permission of the Department. This course examines the history and practice of producing food in cities. Students explore the tensions between the politics, economies and ecologies that organize urban food production and the everyday ways people raise and access food in varied urban contexts. The course also critically evaluates food-based social movements: their limits, possibilities and connections to wider struggles for socio-economic justice.

NOTE: Students who have received credit for GEOG 323 or for this topic under a GEOG 398 or URBS 398 number may not take this course for credit.

URBS 338 *Urban Ecology* (3 credits)

Prerequisite: 24 credits; or permission of the Department. Focusing on the impacts of human activities on fauna, flora, soils and air, this course introduces students to ecosystems found in urban environments. This course also examines the flux of energy and materials to and from the city, and places a strong emphasis on policy and planning practices related to urban forestry, site restoration, greening initiatives, environmental justice, and on practices that foster biodiversity and responsible resource management. The course also looks at historical and contemporary views on the relationship between the city and nature.

URBS 362 *Quantitative Research Methods* (3 credits)

Prerequisite: URBS 260. This course covers the most commonly employed methods for quantitative social science research. Students are taught the basics of introductory classical statistics (both descriptive and inferential) and gain experience applying these methods with commonly used software tools and real-world data. Lectures and laboratory.

NOTE: Students who have received credit for URBS 360 may not take this course for credit.

URBS 380 *Urban and Regional Economic Development* (3 credits)

Prerequisite: URBS 230, 240. This course draws on economic and geographical concepts to examine the process of urbanization. Students begin by focusing on the conventional tools and models for analyzing the nature and structure of cities, and at theories concerning the location of economic activity. It also examines key planning issues associated with the (evolving) role of cities as place of production, distribution, and consumption and considers the role of public policy in addressing these issues. Methods for defining and measuring urban economies for the purpose of analysis are reviewed.

URBS 393 *Law and Regulation in Urban Planning* (3 credits)

Prerequisite: URBS 230 and 240. Urban planning as governmental activity is defined by planning legislation in Quebec. This course covers the major bodies of legislation relevant to urban plans, local development plans, environmental protection, agricultural land preservation, heritage, and economic development. The law is a framework for development control and direct intervention at municipal, regional and provincial levels.

NOTE: Students who have received credit for URBS 293 may not take this course for credit.

URBS 398 *Selected Topics in Urban Studies* (3 credits)

Special topics in urban studies.

URBS 420 *(also listed as GEOG 430)****Social Geographies of Montreal*** (3 credits)

Prerequisite: GEOG 315 or 330; or permission of the Department. This course explores the social and cultural geographies of Montreal with particular emphasis on how the spatial distribution of communities influences urban planning and public policy at the local and regional levels. Complex webs of identities and solidarities informed by socio-economic, linguistic, ethno-cultural, and sexual orientation factors shape the city living experience of individuals and populations alike. Through lectures, discussions, assignments and field trips, students are introduced to a variety of analytical perspectives that investigate the socio-cultural dynamics that contribute to shaping urban settlements, human-environment interactions and local social networks.

NOTE: Students who have received credit for GEOG 430 may not take this course for credit.

URBS 433 *Advanced Urban Laboratory* (6 credits)

Prerequisite: URBS 333 and 393. This is an advanced course in urban design. An overview of current theory and practice is presented. An urban problem is developed and appropriate interventions are considered. These interventions are simulated and the results assessed.

URBS 434 *Transportation GIS* (3 credits)

Prerequisite: URBS 310 and 335, or GEOG 363 and 333; or permission of the Department. This course introduces students to the transportation planning and modelling process aided by the use of a GIS-based transportation decision aid tool. A real-world case-study region and transportation system is used to illustrate the different elements of the planning and modelling process. The course aims to highlight both the strengths and weaknesses (particularly with regard to how it treats the interaction between the transportation system and land use) of the traditional transportation planning approach. Lectures and laboratory.

NOTE: Students who have received credit for this topic under an URBS 498 number may not take this course for credit.

URBS 435 *Transportation Impact Assessment* (3 credits)

Prerequisite: URBS 310 or GEOG 333; URBS 335 or GEOG 363; or permission of the Department. This course introduces students to the quantitative analysis of the environmental (e.g. emissions) and social impacts (e.g. accessibility) of transportation system interventions. Students are introduced to, and gain hands-on experience with, the traditional transportation planning and modelling process aided by the use of a Geographic Information System (GIS)-based transportation decision aid tool. A real-world case-study region and transportation system are used to illustrate the different elements of the planning and modelling process and how this can be used in impact assessment. Lectures and laboratory.

NOTE: Students who have received credit for GEOG 435 or for this topic under a GEOG 498 or URBS 498 number may not take this course for credit.

URBS 450 *(also listed as GEOG 450)****Economic Restructuring*** (3 credits)

Prerequisite: GEOG 330 or GEOG 380 or URBS 380 or permission of the Department. This course examines the nature of firm restructuring in late capitalism and the implications that industrial restructuring trends are having for the geography of industries, the structure of firms, workplace relations and workers' rights. It examines the new challenges that restructuring presents for both economic development prospects and labour market policies, as well as looks at contemporary initiatives to promote more socially and environmentally sustainable development paths.

NOTE: Students who have received credit for GEOG 450 may not take this course for credit.

URBS 460 *Reading the Urban Form* (3 credits)

Prerequisite: URBS 360 or 362 and completion of 48 university credits; or permission of the Department. This course focuses on the physical reality of the city, or its urban form, as well as the ongoing process of city building and urban morphogenesis. It introduces tools to properly describe, quantify, and interpret urban form in its spatial and temporal dimensions. It seeks to develop a better understanding of the processes of which the contemporary urban artifact is the result. Along with theoretical presentations, the course makes use of case studies conducted in different urban and cultural contexts, and introduces many examples of practical applications of morphological analysis in urban planning and design.

URBS 480 *Impact Assessment* (3 credits)

Prerequisite: URBS 360 or 362 and completion of 48 university credits; or permission of the Department. The impacts of projects on urban and suburban communities and the environment are studied within the context of environmental protection legislation. The methods of assessment are then applied to specific cases.

URBS 481 *(also listed as GEOG 431)****Urban Planning in the Developing World*** (3 credits)

Prerequisite: GEOG 330 or URBS 380 or permission of the Department. This course explores the growth and planning of large metropolitan areas in developing nations. Issues and problems associated with recent urbanization are examined along with potential solutions offered by urban planning and public policies. The planning roles of institutions including governments, multi-lateral development agencies, and non-governmental organizations are reviewed.

NOTE: Students who have received credit for GEOG 431 may not take this course for credit.

URBS 483 *Directed Studies/Practicum in Urban Planning I* (3 credits)

Prerequisite: Completion of 60 university credits; enrolment in the Specialization in Urban Planning. Through a case study or practicum of 120 hours with a private or public institution, or community interest group, students acquire experience in a professional working environment.

URBS 484 *Directed Studies/Practicum in Urban Planning II* (3 credits)

Prerequisite: Completion of 60 university credits; enrolment in the Specialization in Urban Planning. Through a case study or practicum of 120 hours with a private or public institution, or community interest group, students acquire experience in a professional working environment.

URBS 486 *Behaviour and the Environment* (3 credits)

Prerequisite: URBS 360 or 362 and completion of 48 university credits; or permission of the Department. Human behaviour is seen both as a determinant and as an outcome of environment. Behavioural topics include perception and attitudes, spatial behaviour, spatial cognition, and time-path analysis. Student projects involve applying the theory to a location study, a facility management study, or other relevant application.

URBS 488 *Analyzing Choice* (3 credits)

Prerequisite: URBS 360 or 362 or GEOG 362; or permission of the Department. This course examines the theory and statistical techniques commonly used to analyze choice. Students design, administer and analyze the results of a stated preference survey on a topic related to people's choices and the environment.

URBS 490 *Public Space and the Public Interest* (3 credits)

Prerequisite: URBS 360 or 362 and completion of 48 university credits; or permission of the Department. Public space is understood as physical space, as well as the space of media and communications, which are openly accessible to all members of a community. Changing definitions of public space are examined in the context of societal and cultural change. The roles of agents and stakeholders in changing the definitions of public interest are also examined. Legal and normative frameworks for the definition of space, control, and access are also introduced.

NOTE: Students who have received credit for this topic under a URBS 498 number may not take this course for credit.

URBS 491 *Honours Thesis or Project* (6 credits)

Prerequisite: Completion of 60 university credits; enrolment in the Honours in Urban Planning. Students may undertake independent, supervised research leading to the production of an honours thesis. They may also undertake a major urban study leading to recommendations for public or private interventions.

NOTE: Students who have received credit for GEOG 491 may not take this course for credit.

URBS 495 *Field Research* (3 credits)

Prerequisite: 60 university credits and permission of the Department. The political, social, and cultural realities of planning in a setting are explored in a field course. Preparation (course meetings and readings) for the field experience at the University is followed by on-site research in the chosen city, where a field investigation is conducted, usually in collaboration with local partner organizations.

URBS 498 *Advanced Topics in Urban Studies* (3 credits)

Special topics in urban studies.

Faculty

Chair

MATTHEW PENNEY, PhD *University of Auckland; Associate Professor*

Associate Chair

GAVIN TAYLOR, PhD *College of William & Mary; Senior Lecturer*

Distinguished Professors Emeriti

RONALD RUDIN, PhD *York University; Provost's Distinction*

ROBERT TITTLER, PhD *New York University*

MARY VIPOND, PhD *University of Toronto*

Professors

GRAHAM CARR, PhD *University of Maine*

FRANK R. CHALK, PhD *University of Wisconsin-Madison*

PETER GOSSAGE, PhD *Université du Québec à Montréal*

STEVEN HIGH, PhD *University of Ottawa; Provost's Distinction*

NORMAN INGRAM, PhD *University of Edinburgh; Provost's Distinction*

WILSON CHACKO JACOB, PhD *New York University*

NORA E. JAFFARY, PhD *Columbia University*

ERICA LEHRER, PhD *University of Michigan*

SHANNON McSHEFFREY, PhD *University of Toronto; Provost's Distinction*

ERIC H. REITER, PhD *University of Toronto, LLM McGill University*

ALISON ROWLEY, PhD *Duke University*

Associate Professors

RACHEL BERGER, PhD *University of Cambridge*

MAX BERGHOLZ, PhD *University of Toronto*

ANDREW IVASKA, PhD *University of Michigan*

BARBARA LORENZKOWSKI, PhD *University of Ottawa*

TED McCORMICK, PhD *Columbia University; Provost's Distinction*

ELENA RAZLOGOVA, PhD *George Mason University*

THERESA VENTURA, PhD *Columbia University*

ANYA ZILBERSTEIN, PhD *Massachusetts Institute of Technology*

Assistant Professors

SARAH GHABRIAL, PhD *McGill University*

VK PRESTON, PhD *Stanford University*

BIMADOSHKA PUCAN, PhD *University of Western Ontario*

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus

J.W. McConnell Building, Room: LB 1001

514-848-2424, ext. 2435

Department Objectives

It is the mission of the Department of History not only to train historians but to produce articulate and informed graduates who share its commitment to serving the broader community. The Department therefore encourages strength in both teaching and research, responsiveness to a wide range of intellectual perspectives, and involvement in community affairs.

Programs

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

60 BA Honours in History

Students seeking admission to the honours program may apply either for direct entry on the University application form or, once in the program, to the departmental honours advisor normally following the completion of 30 credits. Students must have a minimum cumulative GPA of 3.3 (B+). All students must maintain a minimum cumulative GPA of 3.3 as well as a minimum assessment GPA of 3.3 within courses in History. The minimum acceptable grade in any course is normally "C."

A. Honours Essay Option

- 6 Chosen from HIST 200-level courses with History Skills Workshops (courses denoted as HISW in the Undergraduate Class Schedule)
 - 3 History of Europe (HIST 202³, 206³, 207³, 208³, 211³, 235³)
 - 3 History of Asia or Africa (from among HIST 242³, 261³, 262³, 263³, 264³)
 - 3 History of the Americas (from among HIST 203³, 205³, 209³, 210³, 251³, 253³, 276³, 277³)
 - 3 HIST 200-level courses
- 15 HIST 300-level courses
 - 3 HIST 304³ (*Tutorial Preparation for the Honours Essay*)
 - 3 HIST 402³ (*The Philosophy and Practice of History*)
 - 3 HIST 403³ (*Methodology and History*)
 - 6 HIST 493⁶ (*Honours Essay Tutorial*)
- 12 HIST 400-level seminars

B. Seminar Option

- 6 Chosen from HIST 200-level courses with History Skills Workshops (courses denoted as HISW in the Undergraduate Class Schedule)
 - 3 History of Europe (HIST 202³, 206³, 207³, 208³, 211³, 235³)
 - 3 History of Asia or Africa (from among HIST 242³, 261³, 262³, 263³, 264³)
 - 3 History of the Americas (from among HIST 203³, 205³, 209³, 210³, 251³, 253³, 276³, 277³)
 - 3 HIST 200-level courses
- 18 HIST 300-level courses
 - 3 HIST 402³ (*The Philosophy and Practice of History*)
 - 3 HIST 403³ (*Methodology and History*)
- 18 HIST 400-level seminars

C. Public History with Internship Option

- 6 Chosen from HIST 200-level courses with History Skills Workshops (courses denoted as HISW in the Undergraduate Class Schedule)
 - 3 History of Europe (HIST 202³, 206³, 207³, 208³, 211³, 235³)
 - 3 History of Asia or Africa (from among HIST 242³, 261³, 262³, 263³, 264³)
 - 3 History of the Americas (from among HIST 203³, 205³, 209³, 210³, 251³, 253³, 276³, 277³)
 - 3 HIST 200-level courses
 - 6 HIST 300-level courses
 - 3 HIST 300-level courses or elective credits from related disciplines
 - 3 HIST 306³
 - 6 Chosen from HIST 379³, 380³, 381³, 387³, 388³, 389³, 390³, 397³
 - 3 HIST 402³ (*The Philosophy and Practice of History*)
 - 3 HIST 403³ (*Methodology and History*)
 - 9 HIST 400-level seminars
 - 3 HIST 481³
 - 3 HIST 485³
 - 3 HIST 486³

60 BA Specialization in History

- 6 Chosen from HIST 200-level courses with History Skills Workshops (courses denoted as HISW in the Undergraduate Class Schedule)
 - 6 History of Europe (HIST 202³, 206³, 207³, 208³, 211³, 235³)
 - 6 History of Asia or Africa (from among HIST 242³, 261³, 262³, 263³, 264³)
 - 6 History of the Americas (from among HIST 203³, 205³, 209³, 210³, 251³, 253³, 276³, 277³)
 - 3 HIST 200-level courses
- 27 HIST 300-level courses
 - 6 Chosen from any HIST 300- or 400-level courses

- 60 BA Joint Specialization in English and History**
- 6 ENGL 261³, 262³
 - 6 Periods before 1800 (British) from ENGL 302³, 304⁶ through 328³, 430³ through 441³
 - 6 Canadian, American, and postcolonial from ENGL 244³, 360⁶ through 388³, 449³ through 455³
 - 6 19th century and 20th century (British and European) from ENGL 324⁶, 329⁶ through 341³, 343³, 345³, 349³ through 359³, 394³, 442³, 443³, 446³
 - 6 Elective credits from ENGL 224³ through 499³
 - 6 Chosen from HIST 200-level courses with History Skills Workshops (courses denoted as HISW in the Undergraduate Class Schedule)
 - 9 HIST 200-level courses
 - 9 HIST 300-level courses
 - 6 HIST 300- or 400-level courses
- 42 BA Major in History**
- 6 Chosen from HIST 200-level courses with History Skills Workshops (courses denoted as HISW in the Undergraduate Class Schedule)
 - 3 History of Europe (HIST 202³, 206³, 207³, 208³, 211³, 235³)
 - 3 History of Asia or Africa (from among HIST 242³, 261³, 262³, 263³, 264³)
 - 3 History of the Americas (from among HIST 203³, 205³, 209³, 210³, 251³, 253³, 276³, 277³)
 - 3 Chosen from any HIST 200-level courses
 - 18 Chosen from any HIST 300-level courses
 - 6 Chosen from any HIST 300- or 400-level courses
- 24 Minor in History**
- 6 Chosen from HIST 200-level courses with History Skills Workshops (courses denoted as HISW in the Undergraduate Class Schedule)
 - 12 HIST 200 -level courses
 - 6 HIST 300-level courses
- 24 Minor in Law and Society**
- 3 ANTH/HIST/POLI/SOCI 285³
 - 6 Chosen from ANTH 202³; HIST 205³; POLI 204³; SCPA 204³; SOCI 261³; students whose major program is in one of these units must draw from the other units
 - 15 Chosen from ANTH 363³, 380³; FPST 301³, 321³; HIST 309³, 315³, 339³, 359³, 360³; PHIL 343³, 345³; POLI 311³, 320³, 321³, 324³, 328³, 388³; PSYC 242³; RELI 312³; SOCI 262³, 263³, 362³, 363³, 366³, 367³, 380³; of which no more than 3 credits may be at the 200 level; of which no more than 12 credits may be from one department.

NOTE: For details on the course descriptions in the program listed above, please refer to the individual departmental course listings.

Courses

N.B.:

- (1) 300-level courses are generally open only to students who have successfully completed 24 credits. Students who do not have this prerequisite may register with the permission of the Department.
- (2) 400-level courses are generally open to honours and specialization students, or students of high academic standing with the permission of the Department.

HIST 202 *Modern Europe* (3 credits)

A survey of the history of Europe from the French Revolution to the present, with emphasis on the development of ideas and political institutions.

NOTE: Students who have received credit for HISW 202 may not take this course for credit.

HIST 203 *History of Canada, Pre-Confederation* (3 credits)

A survey of Canadian history, from settlement to Confederation, emphasizing readings and discussions on selected problems.

NOTE: Students who have received credit for HISW 203 may not take this course for credit.

HIST 205 *(also listed as SCPA 205)*

History of Canada, Post-Confederation (3 credits)

A survey of Canadian history from Confederation to the present, emphasizing readings and discussions on selected problems.

NOTE: Students who have received credit for HISW 205 or SCPA 205 may not take this course for credit.

HIST 206 *Medieval Europe* (3 credits)

A survey of the history of Europe during the Middle Ages, from the fifth century to the 15th century, with consideration of political, social, economic, intellectual, and religious developments.

NOTE: Students who have received credit for HIST 201 or HISW 206 may not take this course for credit.

HIST 207 *Early Modern Europe* (3 credits)

This course offers an introduction to European history from the 15th through the 18th centuries. It encompasses the Renaissance, the Reformation, the Scientific Revolution, and the Enlightenment. Other topics include European contact with the New World, the formation of commercial and colonial empires, the related transformation of economic and social relations in Europe, and arguably the first modern political revolutions.

NOTE: Students who have received credit for HIST 201 or HISW 207 may not take this course for credit.

HIST 208 *Introduction to the History of the Balkans* (3 credits)

This course surveys the history of Europe through the Balkans (a region consisting of present-day Bulgaria, Romania, Macedonia, Albania, Greece, Montenegro, Kosovo/Kosova, Serbia, Bosnia-Herzegovina, and Croatia), from the pre-modern period to the present day. Emphasis is placed on the cultural diversity of the region and its impact on peace and conflict. Topics include the rise and fall of empires, economic change, religious transformation, violence, and the impact of ideologies such as nationalism, democracy, fascism, and communism.

NOTE: Students who have received credit for HISW 208 may not take this course for credit.

HIST 209 *Quebec to 1867* (3 credits)

An introductory survey of the history of Quebec from its origins as a colony to the creation of modern Canada by the British North American Act of 1867. Particular emphasis is placed on a consideration of those elements of Quebec's past which best assist in the comprehension of the trends prevalent in modern Quebec.

NOTE: Students who have received credit for HISW 209 may not take this course for credit.

HIST 210 *(also listed as SCPA 210)****Quebec since Confederation*** (3 credits)

A survey of the history of Quebec from the time of Confederation until the present. While due emphasis is placed on political developments in the province, the purpose of the course is to acquaint the student with the significant economic and social trends in modern Quebec.

NOTE: Students who have received credit for HISW 210 or SCPA 210 may not take this course for credit.

HIST 211 *(also listed as IRST 211)****History of Ireland*** (3 credits)

After establishing some broader historical context, this survey course traces modern Irish history in the 18th, 19th and 20th centuries. Special attention is given to the development of Irish nationalism and relations with Great Britain.

NOTE: Students who have received credit for IRST 211 or for this topic under an IRST 298 number may not take this course for credit.

HIST 212 *(also listed as IRST 210)****The Irish in Canada*** (3 credits)

From 17th-century fishermen and traders arriving in Newfoundland to displaced victims of the Famine in the 19th century, to contemporary immigrants from Ireland, the Irish have had a presence in all parts of Canada from the earliest days of settlement. This course examines the emigration and settlement patterns of Irish immigrants in the various regions of Canada across a period of three centuries, paying particular attention to their role in the social, economic, political, cultural, and educational development of Canadian society. The course explores the various strategies by which Irish immigrants both adapted to and transformed the particular host society in which they found themselves, and looks at other immigrant communities as a means of understanding the special contribution of the Irish to Canada.

NOTE: Students who have received credit for IRST 210 or for this topic under a HIST or IRST 398 number may not take this course for credit.

HIST 213 *(also listed as IRST 205)****The Irish in Montreal*** (3 credits)

Drawing on a diversity of historiographical materials, this interdisciplinary course examines the story of the Irish in Canada with a particular emphasis on Quebec, from the French colonial period through the City of Montreal's golden era of mercantile prominence in the mid-19th century to the break-up of its older Irish neighbourhoods a century later. Starting with the demographics of Irish immigration and settlement, it devotes special attention to social and cultural relations between the Irish and other ethnic groups.

NOTE: Students who have received credit for IRST 205 or for this topic under a HIST or IRST 398 number may not take this course for credit.

HIST 219 *(also listed as CLAS 230)****Ancient Near East*** (3 credits)

A political, social, economic, and intellectual history of the ancient Near East, this course surveys the period from the origins of civilization in the middle of the fourth millennium to Alexander the Great's conquest of the Persian Empire in the latter part of the fourth century BC.

NOTE: Students who have received credit for CLAS 230 may not take this course for credit.

HIST 223 *(also listed as CLAS 240)****Greek History from the Bronze Age to Alexander*** (3 credits)

This course offers a political, social, economic, and cultural history of Greece from the Minoan-Mycenaean period in the second millennium to the end of Classical Greek civilization in the fourth century BC, with special emphasis placed upon Athens.

NOTE: Students who have received credit for CLAS 240 may not take this course for credit.

HIST 225 (also listed as CLAS 242)

History of the Roman Republic (3 credits)

This course offers a political, social, economic and cultural history of Rome from the city's origins to the establishment of the Roman Empire under the Emperor Augustus.

NOTE: Students who have received credit for CLAS 242 may not take this course for credit.

HIST 235 (also listed as RELI 235)

The Holocaust (3 credits)

Beginning with a discussion of Jewish communities in Europe and America before 1933, this course traces the evolution of anti-Semitism, nationalism, and racism, the rise of Hitler and the Nazi movement, the shaping of Nazi ideology, the growing demonization of the victims of the Holocaust and the genocide against them in their various countries, resistance by the victims, and the parts played by bystanders in the outcome of the Holocaust.

NOTE: Students who have received credit for HISW 235, RELI 235 or 338 may not take this course for credit.

HIST 242 *History of the Middle East* (3 credits)

This course surveys the history of the Middle East from the rise of Islam to the present. It traces broadly the formation of an Islamic World over a millennium and follows its engagements with modernity, examining closely the shift from the overarching paradigm of the multi-ethnic/multilingual Ottoman Empire to that of the mono-ethnic/monolingualistic modern nation state. This course covers the political history of the region including the experience of British and French colonialism, the rise of nationalist movements, and the Arab-Israeli conflict, and focuses on its social, intellectual, and cultural history.

NOTE: Students who have received credit for HIST 240, 241 or HISW 242 may not take this course for credit.

HIST 251 *History of the United States to the Civil War Era* (3 credits)

This course surveys American history from settlement to the Civil War Era. It deals with the political and economic framework of American history, and with social and cultural trends.

NOTE: Students who have received credit for HISW 251 may not take this course for credit.

HIST 253 *History of the United States since the Civil War Era* (3 credits)

This course surveys American history from the Civil War Era to the present. It deals with the political and economic framework of American history, and with social and cultural trends.

NOTE: Students who have received credit for HISW 253 may not take this course for credit.

HIST 261 *History of South Asia* (3 credits)

This course is an introduction to the intellectual traditions, social structures, and political institutions of South Asia, with particular attention to developments during the past two centuries.

NOTE: Students who have received credit for HISW 261 may not take this course for credit.

HIST 262 *History of China* (3 credits)

A survey of China's history from earliest times to the modern era.

NOTE: Students who have received credit for HISW 262 may not take this course for credit.

HIST 263 *History of Japan* (3 credits)

This course surveys Japan's history from earliest times to the modern era. In addition to tracing political developments, it explores other themes such as the changing role of the samurai in history and the evolution of Japanese art, literature, and popular culture.

NOTE: Students who have received credit for HISW 263 may not take this course for credit.

HIST 264 *History of Africa* (3 credits)

This course is an introductory survey of the history of Africa. It examines the major phenomena of African historical experience, including the development of precolonial kingdoms and trans-Saharan trade, the slave trade, colonial conquests, the rise of nationalism, the challenges of independence, and recent crises such as the Rwandan genocide and HIV-AIDS. Emphasis is placed on popular cultural expression through which people on the continent have experienced, understood, remembered, and negotiated broad historical shifts.

NOTE: Students who have received credit for HISW 264 may not take this course for credit.

HIST 274 *The Atlantic World* (3 credits)

This course examines how an "Atlantic world" emerged between the 15th and 19th centuries. As societies in Africa, the Americas, and Europe came into increasingly regular contact, the ocean became a nexus rather than a gulf between them. By studying historical documents from the period and scholarly debates about how to interpret them, we explore why and how these long-distance connections provoked a range of unprecedented transformations for people on four continents.

NOTE: Students who have received credit for this topic under a HIST 298 number may not take this course for credit.

HIST 276 *History of Latin America: The Colonial Period* (3 credits)

This course surveys Latin America up to the wars of independence from Spain. The main themes examined are pre- and post-Columbian indigenous cultures; the Spanish conquest; patterns of colonial trade and economy; the role of the church; and the Bourbon reforms.

NOTE: Students who have received credit for HISW 276 may not take this course for credit.

HIST 277 *History of Latin America: The Modern Period* (3 credits)

This course surveys Latin American society in the 19th and 20th centuries. The principal topics covered are the social and economic roots of political instability; Mexico under Porfirio Díaz; the Mexican Revolution; Argentina and Brazil under Perón and Vargas; U.S.-Latin American relations; Castro's Cuba; revolution and counter-revolution in contemporary Latin America.

NOTE: Students who have received credit for HISW 277 may not take this course for credit.

HIST 281 *Film in History* (3 credits)

This course examines how selected commercial films interpret historical events or provide insight into the politics, society, and culture of the times in which they were produced. The course is designed to help develop critical skills for the understanding of film in an historical framework.

NOTE: Students who have received credit for HISW 281 or this topic under a HIST 298 number may not take this course for credit.

HIST 283 *The 20th Century: A Global History* (3 credits)

This course introduces students to the history of some of the forces and institutions that have shaped the history of the world in the 20th century, which has been characterized by widespread warfare, genocides, and massive violations against human rights and the natural environment. It has also been a time of unprecedented prosperity of some groups and parts of the globe, as well as an era of tremendous scientific advances.

NOTE: Students who have received credit for HISW 283, LOYC 210, or for this topic under a HIST 298 number may not take this course for credit.

HIST 285 *(also listed as ANTH 285/POLI 285/SOCI 285)*

Introduction to Law and Society (3 credits)

This interdisciplinary course examines the roles law plays in Canada and internationally, from the perspectives of history, political science, anthropology, sociology, and philosophy.

NOTE: Students who have received credit for ANTH 285, POLI 285, or SOCI 285, or for this topic under an ANTH 298, HIST 298, POLI 298, or SOCI 298 number, may not take this course for credit.

HIST 298 *Selected Topics in History* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

HIST 301 *Late-19th-Century Canada* (3 credits)

Prerequisite: See N.B. number (1). This course examines the politics of confederation and explores the social, economic, and cultural impact of modernization.

HIST 302 *Natives and Newcomers* (3 credits)

Prerequisite: See N.B. number (1). This course examines the interaction of European colonists with the first peoples of eastern North America before 1800. The emphasis is on cultural exchanges between colonists and Natives in the areas of religion, trade, diplomacy, and warfare.

NOTE: Students who have received credit for this topic under a HIST 398 number may not take this course for credit.

HIST 303 *Native North American History Since 1800* (3 credits)

Prerequisite: See N.B. number (1). This course examines the history of Native North Americans, focusing on the period since 1800. Topics include the emergence of the reserve system and the policy of forced assimilation devised by the governments of Canada and the United States, and the political resurgence and cultural renaissance of Native communities since the mid-20th century.

NOTE: Students who have received credit for this topic under a HIST 398 number may not take this course for credit.

HIST 304 *Tutorial Preparation for the Honours Essay* (3 credits)

Prerequisite: Approved honours standing in History, or permission of the Department. This course provides honours students in History with the opportunity for tutorial reading and research in preparation for the writing of the honours essay.

HIST 305 *Race and Gender in Canadian History* (3 credits)

Prerequisite: See N.B. number (1). This course examines the lives and experiences of Canadian women and men marginalized because of their race, gender and/or sexuality. By looking at people on the margins, this course explores the intersections of gender, race, and space, and speaks to two key issues of today: equality and justice.

HIST 306 *History and the Public* (3 credits)

Prerequisite: See N.B. number (1). This course is an examination of the practice of history outside the academy and an introduction to the critical analysis of presentations of history in public and popular culture. Topics include archives, corporate and popular history, museums and historic sites, preservation, film and television, theme parks, and anniversary commemorations. A special emphasis is placed on public controversies and ethical dilemmas involving historical interpretations.

HIST 307 *History of Montreal* (3 credits)

Prerequisite: See N.B. number (1). A study of the origins of the city, its role in the Empire of the St. Lawrence, and its rise to metropolitan dominance in Canada. Special emphasis on economic development and on ethnic groupings.

HIST 308 *Cultures in Contact: A History of Migrations to North America* (3 credits)

Prerequisite: See N.B. number (1). This course traces the journeys of men, women, and children who left their homelands and came to North America in search of economic opportunities and political and religious freedoms. Focusing on the 19th- and 20th-century waves of migration, students examine the communities migrants created, the discrimination they faced, and the manifold ways in which they, in turn, changed their host societies.

NOTE: Students who have received credit for this topic under a HIST 398 number may not take this course for credit.

HIST 309 *Law and Society in Canadian History* (3 credits)

Prerequisite: See N.B. number (1). This course examines selected issues in Canadian history through the lens of important and controversial court decisions. The influence of legal decisions on society as well as public influence on the development of law is considered.

NOTE: Students who have received credit for this topic under a HIST 398 number may not take this course for credit.

HIST 310 *Canada in the Early-20th Century, 1896–1939* (3 credits)

Prerequisite: See N.B. number (1). An intensive study of early-20th-century Canada concentrating on selected themes in economic, political, social, and cultural history.

HIST 311 *Contemporary Canada, 1939 to the Present* (3 credits)

Prerequisite: See N.B. number (1). An intensive study of Canada since World War II concentrating on selected themes in economic, political, social, and cultural history.

HIST 313 *Quebec in the 19th Century* (3 credits)

Prerequisite: See N.B. number (1). This course explores the major social, economic, and political issues that arose during the 1800s in the transformation of Quebec from a pre-industrial to an industrial society.

HIST 314 *Quebec in the 20th Century* (3 credits)

Prerequisite: See N.B. number (1). This course explores the major social, economic, and political issues of 20th-century Quebec in the light of the concentration of economic power into relatively few hands early in the century and the declining importance of industrial production since World War II.

HIST 315 *Rights and Freedoms in Canadian Society* (3 credits)

Prerequisite: See N.B. number (1). This course examines historical and contemporary aspects of Canada's culture of rights. Topics include the origins and workings of the Canadian Charter and critiques of rights culture.

NOTE: Students who have received credit for this topic under a HIST 398 or POLI 398 number may not take this course for credit.

HIST 318 *Modernist New York* (3 credits)

Prerequisite: See N.B. number (1). This course explores the history of "Modernist New York" from the vantage points of social and cultural history. Focusing on the decades between 1870 and 1930, it examines the interplay of culture and commerce, the histories of elites and recent immigrants, the role of race, and the dramatic changes in the cityscape.

HIST 319 *Canadian History in Literature, Art and Film* (3 credits)

Prerequisite: See N.B. number (1). An examination of some major events and themes in Canadian history as seen by writers, artists, and filmmakers. Topics will vary from year to year, but will be selected to illustrate how creative works may be combined with more conventional historical sources to enhance our understanding of the past.

HIST 320 *American Culture, 1900–1945* (3 credits)

Prerequisite: See N.B. number (1). This course examines how American cultural expression was affected by the broader historical context of the period. Attention is given to changing aesthetic styles, the impact of technology on production and reception, and the role of culture as a representation of American identity.

HIST 321 *American Culture Since 1945* (3 credits)

Prerequisite: See N.B. number (1). This course examines different forms of artistic expression in the U.S. since World War II. Attention is given to changing aesthetic styles and technological developments, as well as to the role of culture as an expression of American identity at home and abroad.

HIST 323 (*also listed as CLAS 341*)***Greek History from Alexander to the Roman Conquest*** (3 credits)

Prerequisite: See N.B. number (1). A political, social, economic, and cultural history of the Greek world from Alexander the Great to the Roman conquest of Greece in 146 BC.

NOTE: Students who have received credit for CLAS 341 may not take this course for credit.

HIST 324 *United States, 1877–1924* (3 credits)

This course looks at the transformation of the United States from a rural debtor nation into an urban, industrial, and financial world power. It explores how a variety of social groups experienced this change as well as its impact on the meaning of democracy, the role of government and the definition of citizenship. The course also examines U.S. foreign relations in this period.

NOTE: Students who have received credit for this topic under a HIST 398 number may not take this course for credit.

HIST 325 *The European Renaissance* (3 credits)

Prerequisite: See N.B. number (1). This course surveys European history from the beginnings of the Italian Renaissance in the late-14th century to the Reformation in the early-16th century. Major themes include Renaissance humanism, the emergence of print culture, the exploration of the New World, changes in social structure, and the consolidation of monarchy.

HIST 326 *Reformations in Early Modern Europe* (3 credits)

Prerequisite: See N.B. number (1). This course surveys the history of Europe from the early Reformation through the end of Europe's religious wars in the mid-17th century. Major themes include the politics of religion, the growth of commerce and social change, competition for empire, and transformation in scientific and political worldviews.

HIST 327 *(also listed as CLAS 343)****History of the Roman Empire*** (3 credits)

Prerequisite: See N.B. number (1). This course offers a political, social, economic, and cultural history of the Roman Empire from Augustus to the end of the Roman Empire in the West.

NOTE: Students who have received credit for CLAS 343 may not take this course for credit.

HIST 328 *The Scientific Revolution* (3 credits)

Prerequisite: See N.B. number (1). This course explores the Scientific Revolution in the context of early modern European society and culture. Major themes include the debates over the methods, purposes, and scope of science; the relationship between science, the supernatural, and the occult; the relationship between science, technology, and craft; and scientific networks, institutions, and means of communication.

HIST 329 *Music in History* (3 credits)

Prerequisite: See N.B. number (1). This course examines music as a medium for understanding the past. Depending on the historical focus, issues such as colonialism, nationalism, social movements, urban culture, youth culture, race, gender, and class through the prism of contemporaneous music genres may be considered. The course may also address the transformation of acoustic spaces and musical instruments, the rise of sound recording, radio broadcasting, online streaming, and the history of music copyright in relation to its composition, performance, recording, broadcasting, and streaming. Students have an option to create a podcast or curate a DJ set for a term project.

NOTE: Students who have received credit for this topic as HIST 398R Post-1945 United States History Through Music or under a HIST 398 number may not take this course for credit.

HIST 330 *(also listed as IRST 312)****The Great Irish Famine*** (3 credits)

Prerequisite: See N.B. number (1). This course examines the social, political, economic, and cultural dimensions of the Great Irish Famine. Beginning with a thorough examination of society and politics in the pre-Famine period, the course explores the causes and course of the 1845-50 Famine, with emphasis on social conditions, mass mortality, emigration, and British government responses to conditions in Ireland. The outcomes and long-term consequences of the Famine for Irish society, politics, Anglo-Irish relations, and the Irish Diaspora are also explored. Some attention is also given to historiographical debates and Famine memory.

NOTE: Students who have received credit for IRST 312 or for this topic under a HIST or IRST 398 number may not take this course for credit.

HIST 332 *United States, Cuban and Mexican Relations* (3 credits)

Prerequisite: See N.B. number (1). This course examines the history of the United States' relations with both Cuba and Mexico from the mid-19th century to the present. As well as studying the ramifications of U.S. involvement in such events as the Spanish-American War (1898), the Mexican Revolution (1910), and the Cuban Revolution (1959), it examines the demographic, political, and cultural impact that Cubans and Mexicans have had on the modern development of the U.S.A.

NOTE: Students who have received credit for this topic under a HIST 398 number may not take this course for credit.

HIST 333 *History of Haiti: From Contact to Independence* (3 credits)

Prerequisite: See N.B. number (1). This course is a study of Haitian history from early colonization through French control to independence in 1804. It covers pre-Columbian Taino society and the Spanish conquest; the period of piracy and French buccaneering in the 16th and 17th centuries; the emergence of a colonial slave society in the 18th century; the Haitian revolution and the rise of Toussaint Louverture; questions of class and colour; the emergence of the state; contingencies of citizenship and independence. The legacies of the colonial and revolutionary periods are fundamental to an understanding of post-independence and present-day Haiti.

HIST 334 *History of Haiti: From Independence to Present* (3 credits)

Prerequisite: See N.B. number (1). This course is a study of Haitian history from independence to the present. It covers the early post-independence regimes; the demise of the plantation economy and the emergence of the Haitian peasantry; the indemnity to France; later 19th-century neo-colonialism and political instability; the U.S. Marine Occupation (1915 – 1934); culture, race and politics during and after the Occupation; the rise of the Duvalierist state; and post-Duvalierist political instability.

HIST 335 *Barbarian Invasions and the Birth of Europe* (3 credits)

Prerequisite: See N.B. number (1). This course examines the arrival and settlement of new populations in the Roman world. It analyzes the changes that this event brought in its wake. Classical civilization was disrupted, but there was also a symbiosis of the old and the new, which in time gave rise to Europe in the Middle Ages.

HIST 336 *Deviancy and Orthodoxy in the History of Mexico* (3 credits)

Prerequisite: See N.B. number (1). This course traces Mexican history from the colonial period to the modern era through an analysis of the various groups that state and society have defined as deviant, including barbarians, heretics, vagrants, lunatics, prostitutes, bandits, and insurgents. This course examines what the shifting preoccupations with and the persecutions of these groups reveal about the creation of political and social orthodoxy in Mexico across time.

HIST 339 *Crime and Punishment in Canadian History* (3 credits)

Prerequisite: See N.B. number (1). This course examines the history of crime and punishment in Canada. Topics include the definition and regulation of deviance; policing; trials and the criminal law; prisons and theories of punishment; the death penalty; crime and the media. Students engage with a variety of primary and secondary sources in readings and assignments.

NOTE: Students who have received credit for this topic under a HIST 398 number may not take this course for credit.

HIST 340 *Early Modern Britain and Ireland* (3 credits)

Prerequisite: See N.B. number (1). This course surveys early modern British history, focusing on the Tudor and Stuart periods. Major themes include religious and cultural change, economic and social transformation, the formation of a modern state amid recurring periods of political conflict, changing relations between the "Three Kingdoms" of England, Scotland, and Ireland, and the beginnings of commercial and colonial expansion.

NOTE: Students who have received credit for HIST 342 may not take this course for credit.

HIST 341 *History of Britain Since 1714* (3 credits)

Prerequisite: See N.B. number (1). This course is a survey of the political, economic, and social development of Britain since the Stuart Era.

HIST 344 *Rise and Fall of Yugoslavia* (3 credits)

Through the study of the rise and fall of Yugoslavia during the 20th century, this course examines themes of modern European history, including empire, nationalism, democracy, fascism, war, genocide, and ethnic cleansing.

NOTE: Students who have received credit for this topic under a HIST 398 number may not take this course for credit.

HIST 345 *Postwar Japanese History* (3 credits)

Prerequisite: See N.B. number (1). This course examines Japan since the end of World War II. While tracing Japan's rise to the status of an economic power, this course focuses primarily on social and cultural history.

NOTE: Students who have received credit for this topic under a HIST 398 number may not take this course for credit.

HIST 346 *Sexuality in History* (3 credits)

Prerequisite: See N.B. number (1). This course looks at the topic of human sexuality taking a broad view, both in time (from the Ancient world to the 20th century) and space (featuring Asia and Africa as well as the Western world). Rather than surveying the impossibly large canvas of sex throughout world history, this course looks at a number of particular topics (e.g. marital sexuality, same-sex relationships, sexual violence) in different cultures.

HIST 347 *Gender and Sexuality in South Asia* (3 credits)

Prerequisite: See N.B. number (1). This course surveys the history of gender and sexuality in South Asia (India, Pakistan, and Bangladesh) from 1500 to the present, beginning in the Mughal period and concluding with an investigation of the post-colonial experience. Topics may include masculinity at the Mughal court, the European woman's imperial "burden," the regulation of sexuality in the Indian anti-colonial movement, the queer experience, identity formation in diaspora, and gender and religious fundamentalism.

NOTE: Students who have received credit for this topic under a HIST 398 number may not take this course for credit.

HIST 348 *History of Violence: Middle East 1798 – Present* (3 credits)

Prerequisite: See N.B. number (1). This course examines the multiple facets of violence in Middle Eastern historical contexts. The objective is to develop a critical approach for thinking about the nature of violence by using a historical perspective to complicate commonplace oppositions between its legitimate and illegitimate forms or its intelligibility and unintelligibility. Students explore the differences among state-sanctioned violence, resistance movements, and terrorism.

NOTE: Students who have received credit for this topic under a HIST 398 number may not take this course for credit.

HIST 350 *Medieval England* (3 credits)

Prerequisite: See N.B. number (1). This course examines the history of England between the Norman Conquest in 1066 and 1500. Topics include the political, social, and cultural impact of the Norman Conquest; Jews and the expulsion of 1290; knights and peasants; the Peasant's Revolt of 1381; crime and the Robin Hood legends; heresy and popular religion; urban culture and guilds.

HIST 351 *England in the Reign of Henry VIII* (3 credits)

Prerequisite: See N.B. number (1). This course examines English history in the first half of the 16th century. In addition to specifically examining the personality and politics of Henry VIII himself, lectures and assignments examine broader social, religious, economic, and legal developments in the kingdom during his reign.

NOTE: Students who have received credit for this topic under a HIST 398 number or as HIST 398L Tudor England may not take this course for credit.

HIST 352 *German History in the 20th Century* (3 credits)

Prerequisite: See N.B. number (1). This course studies the ideological, cultural, political, and socio-economic development of Germany from the First World War to the present.

HIST 353 *Colonial America and the Atlantic World* (3 credits)

Prerequisite: See N.B. number (1). This course explores the economic, political, and cultural history of the Atlantic world as a context for understanding developments in 17th- and 18th-century North America, including Native-European relations, migrations, religious controversies, slavery, revolts and independence movements.

HIST 354 *Revolutionary America* (3 credits)

Prerequisite: See N.B. number (1). This course examines themes and issues in the revolutionary and early national periods of American history.

HIST 355 *United States in the 19th Century, 1815–1850* (3 credits)

Prerequisite: See N.B. number (1). A study of American political, social, and economic life from the end of the War of 1812 to about 1850 — the intensification of sectionalism. Topics include geographic expansion and the beginnings of industrialization, the characteristics of southern slave society, and the rise of a system of political parties during the age of Jackson.

HIST 356 *United States in the 19th Century: The Era of the Civil War* (3 credits)

Prerequisite: See N.B. number (1). A study of American political, social, and economic life before and after the Civil War, from about 1850 to 1890. Topics include sectionalism and the breakdown of parties during the 1850s, the tasks of Reconstruction after the war, the New South, and the problems of a maturing industrial society.

HIST 357 *Foreign Relations of the United States to 1945* (3 credits)

Prerequisite: See N.B. number (1). This course provides an analysis of United States foreign policy from the American Revolution to the conclusion of the Second World War, emphasizing the domestic debate over foreign policy, national security, and economic development; commercial and territorial expansion; and the dynamics of Canadian-American relations.

HIST 358 *Foreign Relations of the United States, 1945 to the Present* (3 credits)

Prerequisite: See N.B. number (1). This is an historical investigation of United States foreign policy from the end of the Second World War to the present, emphasizing the United States' responses to the challenge of revolutions in Asia, Africa, Europe and Latin America, American conceptions of a new world order, the rise of the multinational corporation, globalization, terrorism, humanitarian intervention, and developments in Canadian-American relations.

HIST 359 *(also listed as SOCI 366)*

The History and Sociology of Genocide to 1945 (3 credits)

Prerequisite: See N.B. number (1). Through the comparative and historical examination of a number of cases, this course investigates the meaning of genocide and the processes that have led to genocide up to 1945.

NOTE: Students who have received credit for SOCI 366 may not take this course for credit.

HIST 360 *(also listed as SOCI 367)*

The History and Sociology of Genocide from 1945 to the Present (3 credits)

Prerequisite: See N.B. number (1). Through the comparative and historical examination of a number of cases, this course investigates the meaning of genocide and the processes that led to genocide from 1945 to the present.

NOTE: Students who have received credit for SOCI 367 may not take this course for credit.

HIST 363 *Africa in the 20th Century* (3 credits)

Prerequisite: See N.B. number (1). This course examines 20th-century African history. Beginning with the colonial conquests, the course traces the processes of social, cultural, and economic change that have shaped Africans' experience of colonial domination and postcolonial statehood. Emphasis is placed on the ways in which historical change has been interpreted in African cultural production.

HIST 364 *Modern South Asia* (3 credits)

Prerequisite: See N.B. number (1). British conquest established nearly two centuries of colonial rule over the world's oldest civilization. This course examines the nature of imperial control, the resistance of traditional leaders, European intellectual imperialism, Indian cultural and religious revivalism, and modern nationalism. Special attention is paid to M.K. Gandhi and Gandhism as well as to Muslim separatism and the Pakistan movement.

HIST 365 *Human Rights and Genocide Prevention in History* (3 credits)

Human rights and humanitarian intervention to prevent genocide are contested concepts. This course examines the roots of Western notions of human rights, the evolution of the concept, and case studies clarifying the challenges confronting advocates and critics of humanitarian intervention. Historical examples address the uses of diplomacy, economic assistance, conflict management, and force in mass atrocity prevention and interdiction.

NOTE: Students who have received credit for this topic under a HIST 398 number may not take this course for credit.

HIST 366 *Early Modern China* (3 credits)

Prerequisite: See N.B. number (1). This course examines Chinese history during the Qing dynasty (1644-1912), with emphasis on political, social, diplomatic, and intellectual issues.

HIST 367 *Modern China* (3 credits)

Prerequisite: See N.B. number (1). This course examines China's history since the fall of the Qing dynasty in 1912, with particular emphasis on the Nationalist and Communist revolutionary movements and on China's transformation since the establishment of the People's Republic of China in 1949.

HIST 368 *African Popular Culture* (3 credits)

Prerequisite: See N.B. number (1). This course explores the varied terrain of African popular culture in the 19th and 20th centuries. The materials examined in this course range broadly, including not only scholarly work, but also fiction, film, music, and images that provide entry points into the ways African artists, youth, officials, freedom fighters, market women, bachelors, gangsters, and others have engaged culturally with the world around them.

NOTE: Students who have received credit for this topic under a HIST 398 number may not take this course for credit.

HIST 369 *Middle East: Empire, Gender, and Sexuality in Modern Times* (3 credits)

Prerequisite: See N.B. number (1). This course examines the historical formation and intersection of three distinct phenomena: empire, gender, and sexuality. From the everyday practices of family life to the form of politics and the balance of geo-strategic relations, the 19th and 20th centuries witnessed a radical transformation of human organization within the Middle East and globally. Topics may include imperialism, state formation, nationalism, Orientalism, feminism, and Islam.

NOTE: Students who have received credit for this topic under a HIST 398 number may not take this course for credit.

HIST 370 *Japanese Popular Culture* (3 credits)

Prerequisite: See N.B. number (1). This course traces the history of Japanese popular culture from the 1600s to the present, with emphasis on the last 50 years. The major focus is on the evolution of Japanese popular media such as films, anime, and manga. Other themes such as youth culture, fashion, and the spread of Japanese popular culture outside of the country's borders are explored. No background knowledge or Japanese language skills are required.

NOTE: Students who have received credit for this topic under a HIST 398 number may not take this course for credit.

HIST 371 *History of the Russian Revolutionary Movement, 1825-1922* (3 credits)

Prerequisite: See N.B. number (1). This course traces the evolution of the Russian revolutionary movement from the Decembrist Revolt (1825) to the Bolshevik consolidation of power (1922). Emphasis is placed on the development of Russian conceptions of socialism, Marxism, and anarchism; the roles undertaken by women in various revolutionary groups; and the Russian contribution to the development of modern terrorism.

HIST 372 *Latin American History Via the Novel* (3 credits)

Prerequisite: See N.B. number (1). This course examines modern Latin American history and its representation by comparing "fictional" and "factual" depictions of key issues and significant events including economic imperialism, political revolution, and race relations. Texts such as Gabriel García Márquez's literary masterpiece *One Hundred Years of Solitude* are used.

NOTE: Students who have received credit for this topic under a HIST 398 number may not take this course for credit.

HIST 373 *The Pacific War* (3 credits)

Prerequisite: See N.B. number (1). This course explores the history of the Pacific War, from its origins in the expansion of the Japanese empire to the atomic bombings, Japan's surrender, and the shaping of postwar Asia. While covering battles, strategy and tactics, and the weapons of war, the course also looks at diverse themes such as home fronts, propaganda, and how the war has been remembered and represented since 1945.

NOTE: Students who have received credit for this topic under a HIST 398 number may not take this course for credit.

HIST 374 *Egypt and the World Since 1798* (3 credits)

Prerequisite: See N.B. number (1). This course explores the social, cultural, and political histories of Egypt between the Napoleonic conquest and the present. Special attention is paid to the formation of Egyptian national identity in a post-Ottoman international context.

HIST 376 *The Caribbean and the Atlantic World* (3 credits)

Prerequisite: See N.B. number (1). This course covers the period from post-Columbian contact to the late-19th century. Themes include the link between sugar and slavery; the slave trade and the emergence of plantation-based colonialism; racialized social and economic structures; slave resistance; the politics of abolition; alternative labour forms; and the rise of political movements.

HIST 377 *History of Russia, 1694-1917* (3 credits)

Prerequisite: See N.B. number (1). This course traces Russian history from the era of Peter the Great to the Bolshevik Revolution. Emphasis is placed on long-term trends that continue to affect Russia today such as political liberty, economic development, warfare and foreign affairs, and gender relations.

HIST 378 *History of the Soviet Union* (3 credits)

Prerequisite: See N.B. number (1). This course examines the main economic, social, and political developments of the history of the Soviet Union from its creation in 1917 to its collapse in 1991. Particular attention is paid to the Stalin era, the impact of World War II, and the Cold War.

HIST 379 *History through Visual Media and Material Culture* (3 credits)

Prerequisite: See N.B. number (1). Public encounters with history are increasingly mediated by television, film, the Internet, and museological experiences. This course explores the relationship between the public and the past by examining issues in the production, distribution, and reception of history via these new and changing technologies.

HIST 380 *History and Digital Media* (3 credits)

Prerequisite: See N.B. number (1). This course offers an introduction to the changes that new media and technologies are bringing to historical research, writing, presentation, and teaching of the past. The course begins with an overview of the history of the Internet and digital media, and then examines historical work on a variety of subjects — by scholars, teachers, archivists, museum curators, and popular historians — published on the web. Historical and critical readings provide the basis for the hands-on section of the course in which students develop pilot online history projects.

NOTE: Students who have received credit for this course under a HIST 387 number may not take this course for credit.

HIST 381 *The Politics of the Past* (3 credits)

Prerequisite: See N.B. number (1). This course examines the uses of history and the role of the historian in the political arena, focusing on cases in which the past has underwritten social movements or mediated public controversies. Topics may include controversies over political recognition, historical apologies, reparations, restorative justice, and the repatriation of cultural artifacts.

HIST 382 *Age of Enlightenment* (3 credits)

Prerequisite: See N.B. number (1). This course surveys the intellectual and cultural history of Europe and the Atlantic World from the later 17th century through the 18th century.

HIST 383 *Age of Revolution* (3 credits)

Prerequisite: See N.B. number (1). This course focuses on the French political and English industrial revolutions and their consequences throughout Europe. Colonialism, slavery, and the Atlantic revolutions in the Americas are considered to the extent that they contributed to, or were influenced by, the revolutions in Europe.

HIST 384 *Age of Industrialization and Nationalism 1848-1914* (3 credits)

Prerequisite: See N.B. number (1). A study of the transformation of European society, economy, and politics in the years between the upheavals of the mid-19th century and the collapse of the traditional order in World War I.

HIST 385 *Age of Dictators: Europe, 1914-1945* (3 credits)

Prerequisite: See N.B. number (1). A study of the internal development and external relations of the nations of Europe from the Great War to the end of World War II. The course examines this chaotic age primarily through an investigation of the revolutionary and reactionary upheavals that kept Europe socially, politically, and economically unbalanced for 30 years.

HIST 386 *Contemporary Europe: 1945 to the Present* (3 credits)

Prerequisite: See N.B. number (1). A study of the internal development and external relations of the nations of Europe from the collapse of Nazi Germany to the present. The course concentrates on the divisions between East and West, the economic recovery of Europe and the effects of the energy crisis on social, economic, and political life throughout Europe.

HIST 387 *Selected Topics in Public History* (3 credits)

Prerequisite: See N.B. number (1). Specific topics for this course, and relevant prerequisites, are stated in the Undergraduate Class Schedule.

HIST 388 *Oral History and Creative Practice* (3 credits)

Prerequisite: See N.B. number (1). This course is an introduction to oral history theory, ethics, and practice, and surveys the many oral history projects underway in Montreal and around the globe.

HIST 389 *Ethnography: Doing Micro-History of the Present* (3 credits)

Prerequisite: See N.B. number (1). This course introduces basic tools of ethnographic research and documenting using both traditional and new media, with attention to ethical, political, interpersonal, and aesthetic issues.

HIST 390 *Urban History Laboratory* (3 credits)

Prerequisite: See N.B. number (1). Students conduct original archival and/or oral history research on a selected aspect of Montreal's history and then go public with their research in creative and engaging ways.

NOTE: Students who have received credit for this course topic under a HIST 387 number may not take this course for credit.

HIST 391 *Independent Study Tutorial in History* (3 credits)

Prerequisite: See N.B. number (1). This course permits individual study, with a selected faculty member, in a specialized area not available among regular 300-level classes.

HIST 392 *France 1871 to the Present* (3 credits)

Prerequisite: See N.B. number (1). This course introduces students to the history of France from the Commune of 1871 to the Fifth Republic. This course deals with such issues as the Dreyfus Affair, the legacy of two World Wars in French history, the Vichy regime, collaboration and French fascism, the May events of 1968, and so forth. Political, social, and intellectual developments will be discussed.

HIST 394 *Food in History* (3 credits)

Prerequisite: See N.B. number (1). This course considers the economic, political, and cultural changes in food production, diets and cuisines from 1700 to the present from a global, comparative perspective. Lectures, primary and secondary source readings, films, research and hands-on activities explore diverse topics such as hunting and gathering; cooking traditions and innovations; cultural and ethical dimensions of eating and fasting; agriculture and food markets; the politics of famine; factory farms, industrial processing, and nutritional science; the emergence of the restaurant, the supermarket, fast food; and the globalization of modern diets.

NOTE: Students who have received credit for this topic under a HIST 398 number may not take this course for credit.

HIST 395 *Environmental History* (3 credits)

Prerequisite: See N.B. number (1). This course surveys major themes and problems in global environmental history from the last ice age to the present, but focusing primarily on Europe, Africa, Oceania, and the Americas since 1500. Topics include the history of ideas about nature; climate change; the Columbian Exchange; the environmental impact of science, technology, population growth, and urbanization; the politics of conservation; and environmentalism.

NOTE: Students who have received credit for this topic under a HIST 398 number may not take this course for credit.

HIST 396 *The United States Since 1945* (3 credits)

Prerequisite: See N.B. number (1). The immediate historical background of today's America is the subject matter of this course. Major themes include civil rights, the rise of modern feminism, and economic change.

HIST 397 *History and Sound* (3 credits)

Prerequisite: See N.B. number (1). This course examines sound as a historical subject and a medium for understanding the past. Emphasizing aural rather than visual sources, it addresses a variety of topics including the history of aural art forms such as music and radio; sound recording and transmission technologies; commercial uses of sound; architectural acoustics; and the evolution of soundscapes. The course may include training in the production of radio documentaries, urban sound walks, and audio podcasts.

HIST 398 *Selected Topics in History* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

HIST 402 *The Philosophy and Practice of History* (3 credits)

Prerequisite: Approved honours standing in History, or permission of the Department. This course examines problems in the philosophy and practice of history. Particular attention is given to contemporary debates about history as a distinctive mode of understanding and explanation. This course is required of all honours students.

HIST 403 *Methodology and History* (3 credits)

Prerequisite: Approved honours standing in History, or permission of the Department. This course examines the variety of sources, methods, and modes of analysis used in the research and writing of history. It addresses both theoretical and practical aspects of method. This course is required of all honours students.

HIST 412 *Advanced Study in Canadian History* (3 credits)

Prerequisite: See N.B. number (2). Advanced seminar in a selected topic in the history of Canada. The emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year depending on the instructor.

HIST 437 *Advanced Study in European History* (3 credits)

Prerequisite: See N.B. number (2). Advanced seminar in a selected topic in the history of Europe. The emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year depending on the instructor.

HIST 452 *Advanced Study in American History* (3 credits)

Prerequisite: See N.B. number (2). Advanced seminar in a selected topic in the history of the United States. The emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year depending on the instructor.

HIST 457 *Advanced Study in Latin American and Caribbean History* (3 credits)

Prerequisite: See N.B. number (2). Advanced seminar in a selected topic in Latin American and/or Caribbean history. The emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year depending on the instructor.

HIST 462 *Advanced Study in Asian History* (3 credits)

Prerequisite: See N.B. number (2). Advanced seminar in a selected topic in Asian history. The emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year depending on the instructor.

HIST 467 *Advanced Study in Middle Eastern History* (3 credits)

Prerequisite: See N.B. number (2). Advanced seminar in a selected topic in Middle Eastern history. The emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year depending on the instructor.

HIST 471 *Advanced Study in African History* (3 credits)

Prerequisite: See N.B. number (2). Advanced seminar in a selected topic in the history of Africa. The emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year depending on the instructor.

HIST 475 *Advanced Study in the History of Gender and Sexuality* (3 credits)

Prerequisite: See N.B. number (2). Advanced seminar in a selected topic in the history of gender and sexuality. The emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year depending on the instructor.

HIST 477 *Advanced Study in the History of Human Rights and Justice* (3 credits)

Prerequisite: See N.B. number (2). This advanced seminar focuses on a selected topic in the history of human rights and justice. The emphasis is on encouraging students to conduct historical investigation independently, under a professor's supervision. The specific content may vary from year to year.

HIST 479 *Advanced Study in Women's History* (3 credits)

Prerequisite: See N.B. number (2). Advanced seminar in a selected topic in women's history. The emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year depending on the instructor.

HIST 481 *Advanced Study in Public History* (3 credits)

Prerequisite: See N.B. number (2). Advanced seminar in a selected topic in public history. In addition to weekly discussions of relevant readings, the emphasis is on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content varies from year to year depending on the instructor.

HIST 485 *Public History Workshop* (3 credits)

Prerequisite: See N.B. number (2); HIST 306. This course offers students the opportunity to conceive, plan, and carry out a project that presents a historical subject to the public. Students receive training in the public presentation of the past through several media and to a variety of audiences, and are encouraged to involve relevant parties outside the academy in the development of their project.

HIST 486 *Public History Internship* (3 credits)

Prerequisite: See N.B. number (2); HIST 306. This internship in public history is designed to allow students to test and hone their skills in a non-academic situation. Placements will be arranged by the faculty member responsible for the course and may be drawn from various potential employment sectors: public, non-profit, and private. Students, in consultation with the employer and the faculty advisor, are expected to fully participate in the defining of their internships. Students work according to a detailed job description and devote a minimum of 100 hours to the fieldwork component of the internship, keep a logbook describing their work activities, and submit a 20-25 page written report that summarizes and evaluates their work experience, positioning it in relation to broader academic questions in the field of public history. The employers participate in the assessment of the intern's work. Students may find it useful to have second-language proficiency for the purposes of this internship.

HIST 491 *Individual Study Tutorial in History* (3 credits)

Prerequisite: See N.B. number (2). This course permits an individual student to pursue advanced study, with a selected faculty member, in a specialized area not available among scheduled 400-level seminars.

HIST 492 *Individual Study Tutorial in History* (6 credits)

Prerequisite: See N.B. number (2). This course permits an individual student to pursue advanced study, with a selected faculty member, in a specialized area not available among scheduled 400-level seminars.

HIST 493 *Honours Essay Tutorial* (6 credits)

Prerequisite: See N.B. number (2). This course is open only to honours students in History. The student works with an individual faculty member in a particular area of history. Students are asked to produce a sustained piece of written work, not exceeding 40 pages in length, to be read by their advisor and at least one other member of the Department.

HIST 498 *Advanced Topics in History* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

INTERDISCIPLINARY STUDIES

Section 31.170

Administrator

RICHARD COURTEMANCHE, PhD *Université de Montréal*

For the complete list of faculty members, please consult the Department website.

Program Objectives

The Faculty of Arts and Science *Principles of Education* (§31.001) reinforce the value of broadening skills and experience beyond the boundaries of a single concentration. Interdisciplinary studies involves students in a range of thought, from scientific to humanistic. Courses are designed to illuminate principles, methods, and skills that cross disciplinary boundaries. These programs are intended for students whose interests do not conform to standard academic programs.

Program

INDIVIDUALLY STRUCTURED PROGRAMS — HONOURS OR SPECIALIZATION

Under the direction of the academic advisor, Faculty of Arts and Science

Admission

Opportunities are available in some departments and programs to follow an Individually Structured Specialization or Honours program. Students must apply to the Department that seems most relevant to the central aspect of their proposed program. Students in general must have demonstrated in their previous academic endeavours that they are capable of good standing ("B" level), but in exceptional cases a student may be admitted provisionally on the recommendation of the departmental undergraduate coordinator.

Formal entry to the ISP may occur only after completion of preparatory courses such as are required in Mature Entry and Extended Credit programs. Students wishing to follow an honours program must follow the Faculty procedures and regulations concerning admission to honours programs. (See Degree Requirements — Honours, §16.2.4 and 31.003.)

Students interested in pursuing an Individually Structured Program should contact the academic advisor, Faculty of Arts and Science, at 514-848-2424, ext. 2104.

Academic Regulations

The program will consist of not less than 60 credits. The courses chosen must be based on a departmental or program core, usually the major, but not less than 24 credits. Students will thus be required to complete necessary prerequisites, and general preparation courses such as Research Methods or Statistics, so that they may later follow a regular departmental program if they so desire.

A specialization student must maintain an average of "C+" in all specialization courses for purposes of continuation in the program from year to year, as well as for graduation. The minimum acceptable grade in any single specialization course is "C-."

The program of study must be worked out at the time of registration into the program. Admission to the program must be finalized before a student registers for the final 60 credits of the 90-credit portion of their degree. To allow for the non-availability of certain courses during certain sessions, allowable substitute courses must be listed in advance. Such substitution provisions will be necessary only in the case of specialized courses that are known not to be available on a session by session basis. The intention of this regulation is to assure that the program does not become an ad hoc mixture of courses without clearly rationalized academic coherence.

Students must prepare a careful, not necessarily long, statement of their goals indicating the specific reasons for their program choice. The rationale and the sequence of courses chosen must be approved by the two departmental program coordinators and the Associate Dean, Student Academic Services.

Programs

INTERDISCIPLINARY PROGRAMS — MINORS AND CERTIFICATES

Interdisciplinary minor programs usually consist of 24 or more credits and are to be combined with a department major, specialization, or honours. Interdisciplinary certificate programs normally consist of 30 credits and can be taken as independent programs. Interdisciplinary minor and certificate programs are listed below.

Credits	Title	Cal. Sec.
30	Certificate in Arts and Science	31.170
30	Certificate in Science Foundations	31.170
24	Minor in Israel Studies	31.170

Program

CERTIFICATE IN ARTS AND SCIENCE

The Certificate in Arts and Science is a *non-degree program* that caters to students who qualify for undergraduate degree programs, but whose preference is to follow a shorter program of study. It may also be of interest to those who already have an undergraduate degree, but wish to update their knowledge or learn new skills.

The certificate requires successful completion of 30 credits. At least 24 of these credits must be chosen from courses offered by not more than three departments in the Faculty of Arts and Science.

Students may transfer into the certificate program credits earned in an incomplete degree or certificate program or as an Independent student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the program.

Students who are admitted to the Certificate in Arts and Science, and who wish to continue in a degree program, should apply for admission to their program within the first 30 credits.

For advising assistance, students should contact Student Academic Services at 514-848-2424, ext. 2104.

Program

CERTIFICATE IN SCIENCE FOUNDATIONS

The Certificate in Science Foundations is a non-degree program that caters to students who wish to develop the necessary background for further study in undergraduate degree programs in Science. It also may be of interest to students whose preference is to follow a shorter program of study or who wish to update their knowledge or learn important basics of Science. The certificate requires successful completion of 30 credits.

Students may transfer into the certificate program credits earned in an incomplete degree or certificate program or as an Independent student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the program. Students who are admitted to the Certificate in Science Foundations, and who wish to continue in a degree program, should apply for admission to their program within the first 30 credits.

30 Certificate in Science Foundations

- 3 BIOL 201³
- 6 CHEM 205³, 206³
- 9 MATH 203³, 204³, 205³
- 12 PHYS 204³, 205³, 206³, 224¹, 225¹, 226¹

NOTE: In the event that a student is awarded an exemption from a required course, it will be necessary for the student to replace that course with another relevant to the program, chosen from the following list or in consultation with an academic advisor.

BIOL 225³, 226³; CHEM 221³, 222³, 271³; GEOG 260³; GEOL 210³; MAST 217³, 218³, 221³, 234³; PHYS 232³, 252³, 253³

Program

INTERDISCIPLINARY STUDIES IN SEXUALITY

The Major and Minor in Interdisciplinary Studies in Sexuality, offered jointly by the Faculty of Arts and Science and the Faculty of Fine Arts, draw their curriculum from a variety of disciplines. Their purpose is to investigate empirical, theoretical, and creative aspects of sexuality.

Please refer to §31.560 Simone de Beauvoir Institute and Women's Studies for details.

Program

ISRAEL STUDIES

The Minor in Israel Studies is designed to ensure a balanced coverage and study of the main religious, social, cultural, and political currents that define Israel in the Middle East today. Its curriculum is drawn from various departments including Art History, Classics, Modern Languages and Linguistics, English, History, Political Science and Religions and Cultures.

Students interested in this program should contact the Director of the Azrieli Institute of Israel Studies.

24 Minor in Israel Studies

- 3-9 Credits chosen from HEBR 210⁶, 241³; MARA 200⁶, 206⁶, 240⁶
- 3 Credits chosen from POLI 391³, 395³; RELI 319³
- 3 Credits chosen from POLI 322³; RELI 328³, 329³
- 6-12 Credits chosen from ARTH 369³; ENGL 398³; HEBR 310³; HIST 235³, 242³, 359³; RELI 220³, 223³, 224³, 301³, 351³, 393³
- 3 Credits chosen in consultation with the advisor

Elective Groups

Elective Groups (formerly referred to as Clusters) are elective courses (15 to 18 credits) on a theme. Each group provides multidisciplinary and interdisciplinary course content.

Credits	Elective Groups
15	Econometrics and Programming
18	Health and Lifestyle
18	Hellenic Studies
18	Introduction to Life Sciences
18	Legal Studies
15	Management
15	Marketing
15	Native Studies
18	Quebec Studies
18	Spanish America
15	Sustainability Studies
18	Preparing for Success in the Workplace
18	The Planet Earth: Studies in the Environment
15	Understanding Western Myth
15	The Basics of Business

Course information on these Elective Groups is listed in the Undergraduate Class Schedule and on the University website at www.concordia.ca.

Interdisciplinary Courses

Many courses which have an interdisciplinary approach and are recommended and/or required by a variety of departments are listed in this section.

INTE 290 *Introduction to Computer Usage and Document Design* (3 credits)

This course teaches students how to use the latest Windows operating system in combination with Microsoft Office applications and how to use these tools to produce attractive, efficient, and informative documents. Basic notions of word processing, document design, data organization, and presentation are explored. The course is based on a step-by-step learning process, whereby students acquire the tools that they need to accomplish a specific task. A minimum of 40 hours of laboratory work is required.

NOTE: Computer Science students, or students enrolled in Mathematics and Statistics programs, may not take this course for credit.

NOTE: Students who have received credit or exemption for DESC 200 or BTM 200 may not take this course for credit.

INTE 293 *Computer Application Development* (3 credits)

This course introduces students to the use of contemporary computer tools in scientific applications. It is designed for students with some familiarity with the fundamentals of computing who wish to use computers as tools for research within science disciplines. The format is largely self-instructional, using computer-based tutorial packages. A minimum of 40 hours of laboratory work is required.

INTE 296 *Discover Statistics* (3 credits)

This course introduces students to the basics of statistics and is aimed at mastering the elementary analytical concepts of the subject. Topics include descriptive statistics, correlation and regression analysis, experimental analysis (test procedures), probability (distribution and theory), hypothesis testing, and analysis of variance.

NOTE: Students who have received credit for BIOL 322, COMM 215, ECON 221 or 222, GEOG 362, MAST 221 or 333, PSYC 315, SOCI 212, STAT 249 or for this topic under an INTE 298 number may not take this course for credit.

INTE 298 *Special Topics* (3 credits)

INTE 299 *Special Topics* (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

INTE 398 *Special Topics* (3 credits)

INTE 399 *Special Topics* (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

INTE 498 *Special Topics* (3 credits)

INTE 499 *Special Topics* (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

Faculty

Chair

DAVID SECKO, PhD *University of British Columbia; Professor*

Distinguished Professor Emeritus

ENN RAUDSEPP, PhD *McGill University*

Professor

JAMES MCLEAN, PhD *Concordia University*

Associate Professor

ANDREA HUNTER, PhD *Queen's University*

Assistant Professors

ELYSE AMEND, PhD *McGill University*

GABRIELLE BRASSARD-LECOURS, MA *Université Laval*

AMÉLIE DAOUST-BOISVERT, MA *Université Laval*

APHRODITE SALAS, MA *Concordia University*

Lecturer

PAUL GOTTL, BA *Concordia University*

For the complete list of faculty members, please consult the Department website.

Location

Loyola Campus

Communication Studies and Journalism Building, Room: CJ 3.230

514-848-2424, ext. 5054

Email: Undergraduate.Journalism@concordia.ca

Department Objectives

The Major in Journalism is designed to produce intelligent, thoughtful, and versatile journalists and writers who engage citizens in a democratic society, helping them make informed decisions about their communities. The Minor in Science Journalism has the same foundations and focuses on the communication of scientific topics. Above all, journalism is a rigorous intellectual activity with professional standards for gathering, processing, and disseminating information. The Department of Journalism offers a professional education that combines writing and production workshops, requiring students to complete real-world assignments according to professional and ethical standards, with lectures and seminars that critically examine the social and political contexts in which journalism is produced.

Admission and Graduation Requirements

Enrolment in courses offered by the Department of Journalism is limited and depends on the applicants' successful completion of the admission procedures outlined in the following paragraphs. All applicants to the Major in Journalism and the Minor in Science Journalism should apply through the Concordia University Admissions Application Centre. More information can be found at concordia.ca/artscli/journalism/programs/undergraduate.

A student must achieve a final mark of "C" or better in the reporting workshops in order to proceed to the next level.

To graduate with a Major in Journalism, a student must demonstrate a working knowledge of French. Tests of oral proficiency in French are administered by the Département d'études françaises on behalf of the Department of Journalism, which is responsible for the final evaluation of each student's competence. To graduate with a Major in Journalism, a student must also have a minor or an additional major in another discipline.

Programs

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

These programs are designed to prepare graduates for the English-language media.

A limited number of students who have been admitted to the Major in Journalism program may be allowed to register in the Science College, with a view to combining a basic understanding of science with a training in journalism.

45 BA Major in Journalism

NOTE: To graduate with a Major in Journalism students are required to complete a minor or a major in another subject.

Stage I

18 JOUR 205³, 206³, 207³, 208³, 209³, 216³

Stage II

6 JOUR 302³, 321³

6 Chosen from JOUR 303³, 309³, 310³, 325³, 330³, 335³, 398³

Stage III

6 JOUR 443³, 444³

9 Chosen from JOUR 402³, 404³, 421³, 432³, 437³, 442³, 445³, 450³, 451³, 463³, 498³

24 Minor in Science Journalism

12 JOUR 206³, 207³, 340³, 402³

12 Chosen from JOUR 205³, 208³, 209³, 215³, 216³, 298³, 302³, 325³, 451³; COMS 360³, 361³; ENGL 391³; LOYC 340³

NOTE: With permission of the program director, up to six of the 12 elective credits can be taken in alternative courses, if these courses meet the goals of the program.

NOTE: This minor is intended for students enrolled in a BSc program.

Journalism Co-operative Program

Director

ELYSE AMEND, Assistant Professor

The Journalism co-operative program is offered to full-time students who are enrolled in the BA major program in the Department of Journalism. Students who meet the academic requirements for co-op are eligible to apply. The academic content is very similar to that of the regular programs, with some specific recommendations for courses to improve the students' job skills. Work terms provide co-op students with the opportunity to gain practical journalism experience with a variety of employers. While most of the positions are in the Montreal area, students must be prepared to work in other parts of Canada.

Please refer to §24 for additional information.

Journalism C.Edge (Career Edge) Option

The Journalism C.Edge option is offered through the Institute for Co-operative Education. Like the co-operative program, C.Edge allows students to gain practical experience through work terms related to their field of study. Students may complete one and potentially two work terms. The initial work term is normally undertaken during the summer. Students interested in applying for the C.Edge option should refer to §24 where a full description is provided.

Courses

Written work in writing and reporting workshop courses is in English; please consult the Department.

JOUR 205 **Principles of Journalistic Thought and Practice** (3 credits)

This course provides a survey of the foundational ideas about journalism and its role in society, from the time of an emergent press to the present. It addresses received ideas about journalism's place in democratic society as well as current critical thought.

JOUR 206 **Introduction to Reporting** (3 credits)

Prerequisite: Enrolment in the Major in Journalism or the Minor in Science Journalism. This workshop course lays the foundation for all subsequent reporting and writing courses. Students learn how to do library and online research, structure and conduct interviews, and write news and feature stories for print and digital outlets. Students learn Canadian Press style.

NOTE: Students who have received credit for JOUR 201 may not take this course for credit.

JOUR 207 **Introduction to Multimedia** (3 credits)

Prerequisite: Enrolment in the Major in Journalism or the Minor in Science Journalism. This workshop course introduces students to the use of technology across all digital news platforms, including audio and visual equipment and software. It focuses on the

development of the necessary professional, technical and aesthetic skills to produce editorially sound audio and visual stories. Students are expected to master the use of cameras, recording equipment, and editing software as well as basic digital tools for journalists.

NOTE: Students who have received credit for JOUR 200, 203 or 221 may not take this course for credit.

JOUR 208 *Intermediate Reporting* (3 credits)

Prerequisite: JOUR 206 and 207. This workshop course builds on reporting, writing and research fundamentals with increased emphasis on reporting stories in the community. Practical out-of-class assignments focus on the city of Montreal. Students are expected to report on public events, conduct interviews, and write news and feature stories for print and digital outlets.

NOTE: Students who have received credit for JOUR 201 may not take this course for credit.

JOUR 209 *Intermediate Multimedia* (3 credits)

Prerequisite: JOUR 206 and 207. This workshop course expands on technical and editorial fundamentals with increased emphasis on the use of digital news technology in journalistic storytelling. Students also learn the basics of web layout and design, CMS, and writing formats for these news platforms. Students strengthen their skills by producing multimedia stories using the city of Montreal as their focus.

NOTE: Students who have received credit for JOUR 221 may not take this course for credit.

JOUR 210 *The Media in Quebec* (3 credits)

This course considers the current reality of the Quebec news media as they have been informed by the history of journalism in Quebec. The course situates the media in Quebec within broader philosophical and sociological currents informing the understanding of journalism as an institution. Some of the reading material for this course is in French.

NOTE: Students who have received credit for JOUR 305 may not take this course for credit.

JOUR 215 *Contemporary News Media* (3 credits)

This course introduces students to the increasingly complex structures of modern media, and considers them in the context of journalism ideals. It examines the organizations, practices and problems of news media, focusing on key functions in day-to-day activities. In any given year, it may explore in detail a particular development or problem in the news media.

JOUR 216 *Law and Ethics in Journalism* (3 credits)

Prerequisite: JOUR 206 and 207. This course looks at issues and practices in journalism within the contexts of law and ethics. It aims to provide students with an understanding of professional standards and legal norms, together with a strong foundation in ethical reasoning.

NOTE: Students who have received credit for JOUR 316, 317 or COMS 453 may not take this course for credit.

JOUR 298 *Special Topics in Journalism* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

JOUR 302 *Reporting and Research Methods for Journalism* (3 credits)

Prerequisite: JOUR 206, 207, 208 and 209. This course introduces students to research methods with a particular focus on primary sources, such as official documents, legal and financial records, access-to-information requests, electronic databases, as well as in-depth interviews. These methods are treated as both sources of story ideas and as essential elements of good reporting.

JOUR 303 *Feature Writing* (3 credits)

Prerequisite: JOUR 206, 207, 208 and 209. This workshop course is designed to help students develop and enhance their writing abilities, preparing for the broadest range of long-form journalism, from brief colour stories and profiles to in-depth and long-form articles. It consolidates interview techniques and introduces a variety of writing approaches, including long-form journalism.

JOUR 309 *Editing and Page Design* (3 credits)

Prerequisite: JOUR 206, 207, 208 and 209. This workshop course develops students' copy-editing skills and introduces them to the fundamentals of page layout. While the editing component of the course is designed primarily for students in journalism, the techniques employed are applicable to all media forms.

JOUR 310 *Gender, Diversity and Journalism* (3 credits)

Prerequisite: 30 credits or permission of the Department. This course focuses on gender and diversity issues in journalism, ranging from the historical context to more contemporary material. It addresses the ways in which gender and diversity affect journalism as both a practice and an institution.

NOTE: Students who have received credit for JOUR 320, 420 or for this topic under a JOUR 398 number may not take this course for credit.

JOUR 321 *Visual Journalism* (3 credits)

Prerequisite: JOUR 206, 207, 208 and 209. This workshop course advances video and photography skills already introduced, including those involved in all forms of digital newsgathering. Students refine reporting, writing, recording and editing skills in a visual production context to produce editorially sound and aesthetically acceptable stories.

NOTE: Students who have received credit for JOUR 336 or 339 may not take this course for credit.

JOUR 325 *Social Media and Mobile Reporting* (3 credits)

Prerequisite: JOUR 206, 207, 208 and 209. This workshop course emphasizes the professional and ethical use of social media and mobile technology to report on current affairs topics. Students are expected to use all forms of social media to report on the community.

JOUR 330 *Radio Newsroom* (3 credits)

Prerequisite: JOUR 207 and 209. This workshop course replicates the working conditions and journalistic expectations of a radio newsroom. Students assume various journalistic positions, including assignment editor, reporter, and newsreader, working to deadline to produce a live radio newscast.

JOUR 335 *Alternative Journalism* (3 credits)

Prerequisite: 30 credits or permission of the Department. This course considers the alternative news organizations in a variety of media forms. It examines both historical and contemporary examples in the context of an expanding and diversifying media landscape.

NOTE: Students who have received credit for JOUR 435 or for this topic under a JOUR 298 number may not take this course for credit.

JOUR 340 *Communicating Science with Society* (3 credits)

This is an experiential course that blends journalism theory and practice to examine issues and practices related to the communication of science with society. Students learn to both produce and critique science journalism in a variety of multimedia formats.

JOUR 398 *Special Topics in Journalism* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

JOUR 402 *Specialist Reporting* (3 credits)

Prerequisite: JOUR 302 or permission of the Department. This workshop course focuses on a specified topic area and introduces students to the particular "beat" reporting and analytical demands of the topic and the institutions that form the basis of this reporting specialty.

JOUR 404 *Magazine Writing* (3 credits)

Prerequisite: JOUR 303 or permission of the Department. This workshop is designed for those students who want to further develop a set of research and writing skills geared specifically to the magazine market. Students produce magazine articles of publishable quality and shape the stories to fit the needs of a particular magazine by studying the overall market in depth.

JOUR 421 *Advanced Video Journalism* (3 credits)

Prerequisite: JOUR 321. This workshop course focuses on studio and field production of public affairs programming. Students produce long- and short-form video journalism, contributing to the Department's Digital Magazine and to their professional portfolio. Students learn basic studio production techniques.

JOUR 432 *Documentary Video and Radio* (3 credits)

Prerequisite: JOUR 321. This workshop course is for students who wish to explore long-form journalism in sound and pictures, in particular, the television or radio current affairs documentary. Through assignments, class discussions, and exposure to notable examples of the form, students learn the fundamentals of long-form documentary news production.

JOUR 436 *Citizen Journalism* (3 credits)

Prerequisite: 60 credits or permission of the Department. This course considers the challenges to mainstream journalism and addresses the particularities of citizen journalism, including its sourcing and presentation strategies, and organizational structures. Students learn how to apply basic technologies involved in citizen journalism.

NOTE: Students who have received credit for this topic under a JOUR 398 number may not take this course for credit.

JOUR 437 *Turning Points in Journalism History* (3 credits)

Prerequisite: 60 credits or permission of the Department. By concentrating on seminal moments reflected in a range of news media forms, this course examines technological, socio-cultural, political, and historical trends that have contributed to journalism's development as a set of complex practices. Special attention is given to innovative journalists who have advanced the field.

NOTE: Students who have received credit for JOUR 332 may not take this course for credit.

JOUR 442 *International Journalism* (3 credits)

Prerequisite: 60 credits or permission of the Department. This course examines cross-cultural journalism practices as they pertain to both international news coverage and local reporting in a multicultural setting. The course asks students to apply basic theoretical concepts to case studies of the news.

JOUR 443 *The Digital Magazine* (3 credits)

Prerequisite: JOUR 404, 421, 432, or 445. This capstone course requires students to produce the Department's Digital Magazine. The course replicates the working conditions and journalistic expectations of a digital newsroom. Students are expected to work in editorial teams to create current and updated multimedia content throughout the term.

JOUR 444 *Critical Approaches to Journalism* (3 credits)

Prerequisite: 60 credits or permission of the Department. This course introduces students to a scholarly critique of journalism, both as a practice and as an institution. By interrogating specific readings, students are encouraged to consider the journalist as a cultural producer operating within overlapping social, political, and economic contexts.

JOUR 445 *Advanced Photojournalism* (3 credits)

Prerequisite: JOUR 321. This workshop course expands on the photojournalism fundamentals, where students apply their knowledge of theory and aesthetics of long- and short-form news photography. Students use digital cameras and other technologies to complete coursework and to master the professional techniques of news photography.

NOTE: Students who have received credit for JOUR 366 or 466 may not take this course for credit.

JOUR 450 *Journalism Practicum* (3 credits)

Prerequisite: 60 credits and enrolment in the Major in Journalism or the Minor in Science Journalism. Students who have demonstrated ability, near the end of their program, undertake a practicum at a recognized media outlet, under the supervision of a senior journalist and with permission of the Department's undergraduate program director.

JOUR 451 *Independent Study* (3 credits)

Prerequisite: 60 credits and enrolment in the Major in Journalism or the Minor in Science Journalism. Students who have demonstrated ability may, near the end of their program, undertake an independent study on a topic not otherwise covered by the program, under the direction of one or more faculty members.

JOUR 463 *Literary Journalism* (3 credits)

Prerequisite: 60 credits or permission of the Department. This course explores the literary value of selected, seminal journalistic writings by examining the work of journalists, both past and present, as well as other non-fiction writers, including those in Canada, U.S., U.K., and elsewhere. Students will appreciate how literary styles and conventions can enhance journalistic practices.

JOUR 498 *Advanced Special Topics in Journalism* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

Faculty

Chair

CODY HYNDMAN, PhD *University of Waterloo*; Associate Professor

Associate Chair

LISA KAKINAMI, PhD *University of Rochester School of Medicine and Dentistry*; Associate Professor

Professors

MARCO BERTOLA, PhD *SISSA-ISAS, Trieste, Italy*

ABRAHAM J. BOYARSKY, PhD *McGill University*

YOGENDRA P. CHAUBEY, PhD *University of Rochester*; Provost's Distinction

CHANTAL DAVID, PhD *McGill University*

JOSÉ GARRIDO, PhD *University of Waterloo*

PAWEŁ GORA, PhD DSc *Warsaw University*

JOHN HARNAD, DPhil *University of Oxford*; Provost's Distinction

ADRIAN IOVITA, PhD *Boston University*

HERSHY KISILEVSKY, PhD *Massachusetts Institute of Technology*

DMITRY KOROTKIN, PhD *Steklov Mathematical Institute*

LEA POPOVIC, PhD *University of California, Berkeley*

HARALD W. PROPPE, PhD *McGill University*

ROBERT RAPHAEL, PhD *McGill University*

ALEXANDER SHNIRELMAN, PhD *Moscow State University*

ALINA STANCU, PhD *University of Rochester*

RONALD J. STERN, PhD *Northwestern University*

WEI SUN, PhD *Chinese Academy of Sciences*

FRED E. SZABO, PhD *McGill University*

XIAOWEN ZHOU, PhD *University of California, Berkeley*

Associate Professors

G. ELIE COHEN, PhD *McGill University*

GALIA DAFNI, PhD *Princeton University*

PATRICE GAILLARDETZ, PhD *University of Toronto*

NADIA HARDY, PhD *Concordia University*

ALEXEY KOKOTOV, PhD *Steklov Mathematical Institute*

MÉLINA MAILHOT, PhD *Université Laval*

ARUSHARKA SEN, PhD *Indian Statistical Institute*

Assistant Professors

SIMONE BRUGIAPAGLIA, PhD *Politecnico di Milano*

FRÉDÉRIC GODIN, PhD *HEC Montréal*

YANG LU, PhD *Université Paris-Dauphine*

GIOVANNI ROSSO, PhD *KU Leuven and Université Paris 13*

Senior Lecturers

ARMEN ATOYAN, PhD *Moscow Engineering-Physics Institute*

DEBARAJ SEN, PhD *Concordia University*

Lecturer

IONICA GROPARIU-COJOCARU, PhD *Université de Montréal*

Affiliate Professor

DANIEL DUFRESNE, PhD *City, University of London*

Affiliate Associate Professor

HENRY HUNG, PhD *McGill University*

Affiliate Assistant Professors

MANUELA GIROTTI, PhD *Concordia University*
MARC-HUBERT NICOLE, PhD *McGill University*
JOSHUA WYATT SMITH, PhD *Georg-August-Universität*

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus
J.W. McConnell Building, Room: LB 901
514-848-2424, ext. 3223

Department Objectives

The Department of Mathematics and Statistics provides the general mathematical culture necessary for training those who will either be using the tools of mathematics or statistics in their work or who will become future mathematicians or statisticians. For students who are contemplating graduate work in mathematics or statistics, the Department has leading researchers in the fields of actuarial mathematics, applied probability, computational algebra, differential geometry, dynamical systems, mathematical physics, mathematics education, number theory and statistics.

In addition to its co-op program, alternating work and academic terms, the Department offers a program in Actuarial Mathematics and prepares students for the associateship examinations of the Society of Actuaries and the Casualty Actuarial Society.

The Department also provides instruction at the remedial and introductory levels to enable students who have been out of school for some time to re-enter the academic stream; and offers special courses for teachers of mathematics who wish to keep abreast of recent ideas and applications.

Programs

Students are required to complete the appropriate entrance profile for entry into the program (see §31.002 — Programs and Admission Requirements — Profiles).

A student wishing to follow a program in the Department of Mathematics and Statistics but not meeting the entrance requirements should consult with one of the Department's academic advisors.

By careful choice of electives, students can select whether the emphasis of the program will be in the area of Actuarial Mathematics, Mathematical and Computational Finance, Pure and Applied Mathematics, or Statistics through specialization/honours programs in the respective areas.

The enrolment in specialization/honours will be on a selective basis, whereas the major will be open to all students. However, students with less than a 70% average in Cegep Mathematics courses will be required to take a six-credit "transition" Calculus and Linear Algebra course (MAST 214) upon entry into the MATH/STAT Major. The course will not count for credits in the major. Students in a Mathematics and Statistics program may not take any of the following courses for credit: EMAT 212, 232, 252, 271. Students wishing to take other Engineering Mathematics courses for credit must obtain prior approval of the Department.

The Department of Mathematics and Statistics offers honours programs as a six-credit extension to its specialization programs in Pure and Applied Mathematics, Statistics, and Actuarial Mathematics. The extra six credits are earned in one of the Project Courses: MATH 496, STAT 499, or ACTU 493. The Department does not allow direct entry to honours programs upon admission to Concordia University. Students seeking entry to an honours program should speak to the Department's honours director after completing 30 credits in their specialization.

Students admitted to an honours program require an overall GPA of at least 3.30, and at least 3.50 in their program of specialization with no more than one grade below B-. Students must find a supervisor for their project and register for the appropriate Project Course.

For additional information concerning programs and courses, students should consult the Department.

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

66 BA or BSc Honours in Actuarial Mathematics

- 27 MATH 251³, 252³, 264³, 265³, 354³, 364³, 365³; STAT 249³, 250³
30 ACTU 256³, 257³, 357³, 457³, 458³, 459³; STAT 349³, 360³, 460³, 461³
3 Chosen from ACTU 286¹, 386², 486²; MAST 232³, 332³; STAT 287¹, 388²
6 Honours project ACTU 493

60 BA or BSc Specialization in Actuarial Mathematics

- 27 MATH 251³, 252³, 264³, 265³, 354³, 364³, 365³; STAT 249³, 250³
30 ACTU 256³, 257³, 357³, 457³, 458³, 459³; STAT 349³, 360³, 460³, 461³
3 Chosen from ACTU 286¹, 386², 486²; MAST 232³, 332³; STAT 287¹, 388²

- 90 BA or BSc Specialization in Actuarial Mathematics/Finance**
- 27 MATH 251³, 252³, 264³, 265³, 354³, 364³, 365³; STAT 249³, 250³
 - 30 ACTU 256³, 257³, 357³, 457³, 458³, 459³; STAT 349³, 360³, 460³, 461³
 - 3 Chosen from ACTU 286¹, 386², 486²; STAT 287¹
 - 18 ECON 201³, 203³; COMM 220³; ACCO 230³; FINA 385³, 395³
 - 12 Chosen from MACF 401³, 402³; 400-level Finance courses

- 90 BA or BSc Specialization in Mathematical and Computational Finance**
- 6 MACF 401³, 402³
 - 24 MATH 251³, 252³, 264³, 265³, 364³, 365³, 370³, 473³
 - 18 STAT 249³, 250³, 349³, 360³, 460³, 461³
 - 12 Chosen from MACF 491³, 492³; MATH 361^{3*}, 464³, 467³, 478³, 479³; STAT 449³, 450³, 452³
 - 24 ACCO 230³; COMM 220³, 308³; ECON 201³, 203³; FINA 385³, 395³, 412³
 - 3 Chosen from FINA 411³, 413³, 455^{**}, 465³
 - 3 COMP 218³ or 248^{3.5}

*NOTE: Students electing to include MATH 361 in their program are normally expected to plan to take MATH 478 and FINA 411 in order to focus on Portfolio Management and Optimization as an area of the Mathematical and Computational Finance discipline.

**NOTE: FINA 455 may only be included with prior departmental approval. The topic must be related to an area of the Mathematical and Computational Finance discipline.

- 66 BA or BSc Honours in Pure and Applied Mathematics**
- 30 MATH 251³, 252³, 264³, 265³, 354³, 361³, 364³, 365³; STAT 249³, 250³
 - 12 MATH 366³, 369³, 370³, 464³
 - 3 Chosen from MAST 217³, 232³
 - 9 Chosen from any other 400-level MATH/STAT courses
 - 6 MATH/STAT chosen with prior departmental approval
 - 6 Honours project MATH 496

- 60 BA or BSc Specialization in Pure and Applied Mathematics**
- 30 MATH 251³, 252³, 264³, 265³, 354³, 361³, 364³, 365³; STAT 249³, 250³
 - 12 MATH 366³, 369³, 370³, 464³
 - 3 Chosen from MAST 217³, 232³
 - 9 Chosen from any other 400-level MATH/STAT courses
 - 6 MATH/STAT chosen with prior departmental approval

- 66 BA or BSc Honours in Statistics**
- 24 MATH 251³, 252³, 264³, 265³, 364³; STAT 249³, 250³, 280³
 - 18 STAT 349³, 360³, 450³, 460³, 461³, 480³
 - 3 Chosen from STAT 343³, 468³
 - 9 Chosen from STAT 347³, 380³, 449³, 452³, 465³, 497³, 498³
 - 6 MATH/STAT chosen with prior departmental approval
 - 6 Honours project STAT 499

NOTE: Students taking a double Major or a Minor in Mathematics and Statistics and whose other program requires statistics courses should consult the Mathematics and Statistics undergraduate program advisor.

- 60 BA or BSc Specialization in Statistics**
- 24 MATH 251³, 252³, 264³, 265³, 364³; STAT 249³, 250³, 280³
 - 18 STAT 349³, 360³, 450³, 460³, 461³, 480³
 - 3 Chosen from STAT 343³, 468³
 - 9 Chosen from STAT 347³, 380³, 449³, 452³, 465³, 497³, 498³
 - 6 MATH/STAT chosen with prior departmental approval

NOTE: Students taking a double Major or a Minor in Mathematics and Statistics and whose other program requires statistics courses should consult the Mathematics and Statistics undergraduate program advisor.

- 42 BA or BSc Major in Mathematics and Statistics**
- 33 COMP 218³ or 248^{3.5}; MAST 217³ or COMP 232³; MAST 218³, 219³, 221^{3*}, 232³, 234³, 235³, 324³, 331³, 333^{3*}
 - 3 Chosen from MAST 330³, 332³
 - 3 Chosen from MAST 223^{3*}, 334³, 335³, 397³, 398³
 - 3 Chosen with prior departmental approval**

*NOTE: Students enrolled in a Mathematics and Statistics program who take probability/statistics courses in other departments may not receive credit for this course. Students taking a double Major or a Minor in Mathematics and Statistics and whose other program requires statistics courses should consult the Mathematics and Statistics undergraduate program advisor.

**NOTE: This category may also include any other courses in the ACTU/MATH/STAT discipline, or certain courses in COMP or PHYS. It is not intended to include courses unrelated to the mathematical disciplines.

- 78 BA or BSc Joint Major in Mathematics and Statistics and Computer Science**
- Mathematics and Statistics Component*
- 42.5 COMP 248^{3,5}; MAST 217³ or COMP 232³; MAST 218³, 219³, 221³ or COMP 233³; MAST 232³, 234³, 235³, 324³, 331³, 332³ or COMP 367³; MAST 333^{3*}, 334³ or COMP 361³; MATH 339³
- Computer Science Component*
- (see §71.85)
- 32.5 COMP 228³, 249^{3,5}, 335³, 346⁴, 348³, 352³, 354⁴, 465³; ENCS 282³, 393³
- 3 Chosen from COMP courses with numbers 325 or higher; SOEN 287³, 321³, 387³, 422⁴, 423⁴, 487⁴

NOTE: The Faculty of Arts and Science and the Gina Cody School of Engineering and Computer Science have created a program of study which combines a comprehensive education in computer science and mathematics. This program resides in both Faculties. In the Gina Cody School of Engineering and Computer Science, it is offered under the aegis of the Bachelor of Baccalaureate in Computer Science. According to their preferences and aspirations, students may apply either for a Bachelor of Baccalaureate in Science program, or Bachelor of/Baccalaureate in Arts program or a Bachelor of/Baccalaureate in Computer Science program. The Computer Science program is described in §71.85.

**NOTE: Students enrolled in a Mathematics and Statistics program who take probability/statistics courses in other departments may not receive credit for this course. Students taking a double Major or a Minor in Mathematics and Statistics and whose other program requires statistics courses should consult the Mathematics and Statistics undergraduate program advisor.*

- 24 Minor in Mathematics and Statistics**
- 18 MAST 217³, 218³, 219³, 221^{3*}, 324³, 333^{3*}
- 6 MATH/STAT chosen with prior departmental approval from MAST 223^{3*}, 232³, 234³, 235³, 330³, 331³, 332³, 334³, 335³, 397³, 398³

**NOTE: Students enrolled in a Mathematics and Statistics program who take probability/statistics courses in other departments may not receive credit for this course. Students taking a double Major or a Minor in Mathematics and Statistics and whose other program requires statistics courses should consult the Mathematics and Statistics undergraduate program advisor.*

Mathematics and Statistics Co-operative Program

Director

MÉLINA MAILHOT, Associate Professor

The Mathematics and Statistics co-operative program is offered to students who are enrolled in the BA or BSc honours or specialization programs. Students interested in applying for the Mathematics and Statistics co-op should refer to §24 where a full description of the admission requirements is provided.

Academic content is identical to that of the regular program, but study terms are interspersed with three or four work terms. Students are supervised personally and must meet the requirements specified by the Faculty of Arts and Science and the Institute for Co-operative Education in order to continue their studies in the co-op format.

Liaison between the student, the employers, and the Institute for Co-operative Education is provided by the Mathematics and Statistics co-op committee, which includes the student's advisors.

Please refer to §24 for additional information.

Mathematics and Statistics C.Edge (Career Edge) Option

The Mathematics and Statistics C.Edge option is offered through the Institute for Co-operative Education. Like the co-operative program, C.Edge allows students to gain practical experience through a work term related to their field of study. It is limited to one work term, normally in the summer, and is open to students in all programs of concentration offered by the Department who satisfy the admission requirements. Students interested in applying for the C.Edge option should refer to §24 where a full description is provided.

Courses

Actuarial Mathematics

ACTU 256 **Mathematics of Finance** (3 credits)

Prerequisite: MATH 264 previously or concurrently; and permission of the Department. Measurement of interest; annuities and perpetuities; amortization and sinking funds; rates of return; bonds and related securities; life insurance.

NOTE: Students who have received credit for MATH 326 may not take this course for credit.

NOTE: Only three credits will be awarded from ACTU 256; MAST 335.

ACTU 257 **Actuarial Mathematics I** (3 credits)

Prerequisite: ACTU 256. Measurement of mortality; pure endowments; life insurance; net single premiums; life annuities; net annual premiums; special topics.

NOTE: Students who have received credit for MATH 327 may not take this course for credit.

ACTU 286 *Actuarial Mathematics Lab I* (1 credit)

This lab features problem-solving sessions for the professional examination on financial mathematics of the Society of Actuaries and the Casualty Actuarial Society.

NOTE: Students who have received credit for MATH 229 may not take this course for credit.

ACTU 357 *Actuarial Mathematics II* (3 credits)

Prerequisite: ACTU 257. Net level premium reserves; multiple life functions; multiple decrements, the expense factor; special topics.

NOTE: Students who have received credit for MATH 427 may not take this course for credit.

ACTU 386 *Actuarial Mathematics Lab II* (2 credits)

This lab will feature the use of programming languages and software applications.

NOTE: Students who have received credit for MATH 232 may not take this course for credit.

ACTU 456 *Pension Mathematics* (3 credits)

Prerequisite: ACTU 357. Valuation methods; gains and losses; dynamic control; special topics.

ACTU 457 *Risk Theory* (3 credits)

Prerequisite: ACTU 257. Applications of contingency theory in health insurance, individual and collective risk theory, ruin theory.

NOTE: Students who have received credit for MATH 428 may not take this course for credit.

ACTU 458 *Credibility Theory* (3 credits)

Prerequisite: ACTU 457; STAT 349 previously or concurrently. Credibility approach to inference for heterogeneous data; classical, regression and Bayesian models; illustrations with insurance data.

ACTU 459 *Loss Distributions* (3 credits)

Prerequisite: ACTU 457; STAT 360. Probability model fitting to loss data; estimation and testing under variety of procedures and sampling designs.

ACTU 486 *Actuarial Mathematics Lab III* (2 credits)

This lab will be a workshop designed to prepare students for the Actuarial Models examination of the Society of Actuaries and the Casualty Actuarial Society.

NOTE: Students who have received credit for MATH 429 may not take this course for credit.

ACTU 491 *Topics in Actuarial Mathematics* (3 credits)**ACTU 492 *Reading Course in Actuarial Mathematics*** (3 credits)**ACTU 493 *Honours Project in Actuarial Mathematics*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

Mathematical and Computational Finance

MACF 401 *Mathematical and Computational Finance I* (3 credits)

Prerequisite: FINA 385; MATH 265; STAT 349 previously or concurrently. This course is a rigorous introduction to the theory of mathematical and computational finance. Multi-period binomial model; state prices; change of measure; stopping times; European and American derivative securities; interest-rate models; interest-rate derivatives; hedging; convergence to the Black-Scholes model.

MACF 402 *Mathematical and Computational Finance II* (3 credits)

Prerequisite: MACF 401; MATH 473; STAT 461 previously or concurrently. This course is a continuation of MACF 401 and focuses on modelling and computational techniques beyond the binomial model. Simulation; Monte-Carlo methods in finance; option valuation; hedging; heat equation; finite difference techniques; stability and convergence; exotic derivatives; risk management; calibration and parameter estimation.

MACF 491 *Topics in Mathematical and Computational Finance* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

MACF 492 *Reading Course in Mathematical and Computational Finance* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

Mathematics and Statistics

MAST 214 *Calculus and Linear Algebra* (6 credits)

Prerequisite: Cegep Mathematics 105 or 201-NYC, 203 or 201-NYB. Functions; maxima and minima. Velocity and acceleration. Iterative solution of equations, parametric equation of curves. Integrals; change of variables, integration by parts, double integrals, numerical integration. Conic sections. Matrices, determinants, eigen-values, eigenvectors, system of equations. Series and their

convergence. Introduction to vector space and complex numbers. Word problems.

NOTE: This course can be counted as an elective towards a 90-credit degree program, but must be taken before any other post-Cegep Mathematics course except for MAST 217, which may be taken concurrently. It must be taken, upon entry, by newly admitted students in the MATH/STAT Major who have less than 70% average in Cegep Mathematics courses.

MAST 217 *Introduction to Mathematical Thinking* (3 credits)

Prerequisite: MATH 203 and 204, or equivalent. This course aims to foster analytical thinking through a problem-solving approach. Topics include construction of proofs, number systems, ordinality and cardinality, role of examples and counter examples, role of generalizations and specializations; role of symbols, notations and definitions; styles of mathematical discourse.

NOTE: Students who have received credit for COMP 232 or COMP 238 may not take this course for credit.

NOTE: Students with more than 12 credits in post-Cegep Mathematics (excluding MAST 214) may not take this course for credit.

MAST 218 *Multivariable Calculus I* (3 credits)

Prerequisite: MATH 204 and 205, or equivalent. Vector geometry; lines and planes; curves in \mathbb{R}^n ; vector functions; vector differential calculus; extrema and Lagrange multipliers. Introduction to multiple integrals and coordinate transformations. Problem solving with a symbolic computation system, e.g. MAPLE.

NOTE: Students who have received credit for MATH 264 may not take this course for credit.

MAST 219 *Multivariable Calculus II* (3 credits)

Prerequisite: MAST 218 or equivalent. Vector integral calculus; line and surface integrals; Green's, Stokes' and Gauss' theorems; coordinate transformations and Jacobians. Power series, applications. Problem solving with a symbolic computation system, e.g. MAPLE.

NOTE: Students who have received credit for MATH 265 may not take this course for credit.

MAST 221 *Applied Probability* (3 credits)

Prerequisite: MATH 204 and 205, or equivalent; MAST 218 or equivalent previously or concurrently. Counting rules, discrete probability distributions; random sampling; conditional probability; means and variances, normal and other continuous sampling distributions. Applications. Use of statistical software, e.g. MINITAB.

NOTE: Students who have received credit for STAT 249, COMP 233 or ECON 221 may not take this course for credit.

NOTE: Students enrolled in a Mathematics and Statistics program who take probability/statistics courses in other departments may not receive credit for this course. Please consult the Mathematics and Statistics undergraduate program advisor.

MAST 223 *Introduction to Stochastic Methods of Operations Research* (3 credits)

Prerequisite: MAST 221 or equivalent; MAST 219 or equivalent previously or concurrently. Markov chains; queuing theory; inventory theory; Markov decision processes; applications to reliability.

NOTE: Students who have received credit for STAT 349 may not take this course for credit.

NOTE: Students enrolled in a Mathematics and Statistics program who take probability/statistics courses in other departments may not receive credit for this course. Please consult the Mathematics and Statistics undergraduate program advisor.

MAST 232 *Mathematics with Computer Algebra* (3 credits)

Prerequisite: MATH 204 and 205, or equivalent. An introduction to the use of a high-level mathematical programming language (MAPLE or MATHEMATICA) as a practical aid in doing mathematics. Most classes are given in an interactive way in the computer laboratory. The emphasis is on applications, not on general programming techniques or abstract structures. The aim is to arrive at a sufficient working familiarity with the computer algebra language to permit its regular use in subsequent studies and applications. The commands and online resources are introduced through a review of arithmetic, complex numbers, algebra, Euclidean geometry, trigonometry, coordinate systems and graphing, elementary functions and transformations, series, derivatives, integrals, vectors and matrices. There may be additional topics from domains such as number theory, differential equations, integral transforms, probability and statistics.

NOTE: Students who have received credit for MAST 332 or COMP 367 or 467 may not take this course for credit.

MAST 234 *Linear Algebra and Applications I* (3 credits)

Prerequisite: MATH 204 or equivalent. System of linear equations, matrix operations, echelon forms and LU-factorization; \mathbb{R}^n : subspaces, linear dependence, basis, dimension, matrix transformations; eigenvalues and eigenvectors in \mathbb{R}^n and applications (e.g. Markov chains, dynamical systems). A symbolic computation system, e.g. MAPLE, is extensively used.

NOTE: Students who have received credit for MATH 251 or ECON 325 may not take this course for credit.

MAST 235 *Linear Algebra and Applications II* (3 credits)

Prerequisite: MAST 234 or equivalent. \mathbb{R}^n : Orthogonality, projections, Gram-Schmidt method and QR-factorization; applications to least square methods (data fitting, inconsistent systems). Symmetric matrices, principal axes theorem and applications. Special topics (e.g. coding theory, differential equations, error analysis). A symbolic computation system, e.g. MAPLE, is extensively used.

NOTE: Students who have received credit for MATH 252 may not take this course for credit.

MAST 324 *Introduction to Optimization* (3 credits)

Prerequisite: MATH 205 or equivalent. Introduction to the theory of optimization; linear programming; the simplex method; duality and transportation problem. Introduction to graphs and networks; applications. Use of computing softwares.

NOTE: Students who have received credit for MAST 224 or MATH 361 may not take this course for credit.

MAST 330 Differential Equations (3 credits)

Prerequisite: MAST 219, 234 or equivalent. First order differential equations; second order differential equations; Laplace transform methods; mathematical models and numerical methods.

NOTE: Students who have received credit for MATH 370 may not take this course for credit.

MAST 331 Mathematical Modelling (3 credits)

Prerequisite: MAST 221, 324 previously or concurrently, 234 or equivalent. Introduction to mathematical modelling; predator-prey models in biology, game theory, decision analysis, stability theory; modelling electric circuits.

MAST 332 Techniques in Symbolic Computation (3 credits)

Prerequisite: MAST 217 or COMP 232 or equivalent; COMP 248 or equivalent; MAST 232 or permission of the Department. This course is an application-oriented introduction to symbolic computation, as it applies to algebra, number theory and combinatorics covering the following topics: capabilities of symbolic systems (e.g. MAPLE), modular methods, arithmetic mod p, arithmetic mod m, matrices mod p, Chinese remainder theorem, polynomial factorization mod p. Applications to coding theory and cryptography. Combinatorial algorithms.

NOTE: Students who have received credit for COMP 367 or 467 may not take this course for credit.

MAST 333 Applied Statistics (3 credits)

Prerequisite: MAST 221 or equivalent. Graphical and numerical descriptive methods; Estimation and hypothesis testing; linear regression and correlation; one way ANOVA; contingency and goodness of fit tests. Use of statistical software, e.g. MINITAB.

NOTE: Students who have received credit for STAT 360, BIOL 322, COMM 215 or GEOG 362 may not take this course for credit.

NOTE: Students enrolled in a Mathematics and Statistics program who take probability/statistics courses in other departments may not receive credit for this course. Please consult the Mathematics and Statistics undergraduate program advisor.

MAST 334 Numerical Analysis (3 credits)

Prerequisite: MAST 219 or equivalent; MAST 232 or equivalent; MAST 235 previously or concurrently. Introduction to computing softwares; numerical solution of non-linear equations; interpolations and approximations; quadrature and numerical integration.

NOTE: Students who have received credit for MATH 354 may not take this course for credit.

MAST 335 Investment Mathematics (3 credits)

Prerequisite: MAST 218 or equivalent. Simple and compound interest; annuities; amortization and sinking funds; mortgage schemes; bonds and related securities; capital cost and depletion; spread-sheet implementation.

NOTE: Students who have received credit for MATH 326 may not take this course for credit.

NOTE: Only three credits will be awarded from MAST 335; ACTU 256.

MAST 397 Topics in Mathematics and Statistics (3 credits)**MAST 398 Reading Course in Mathematics and Statistics** (3 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

Mathematics

MATH 200 Fundamental Concepts of Algebra (3 credits)

This course is designed to give students the background necessary for MATH 201. Some previous exposure to algebra is assumed. Sets, algebraic techniques, inequalities, graphs of equations. Lectures and tutorials.

NOTE: Students who have received credit or exemption for a course at the level of MATH 201 or above may not take this course for credit.

NOTE: Students in programs leading to the BSc degree or the BA programs in Mathematics and Statistics may not take this course for credit to be applied to their program of concentration.

MATH 201 Elementary Functions (3 credits)

Sets, inequalities, graphs of functions, and relations. Trigonometric, exponential, and logarithmic functions. Lectures and tutorials.

NOTE: Students who have received credit or exemption for MATH 203 or equivalent, or for a course having MATH 203 or equivalent in its sequence of prerequisites, may not take this course for credit.

NOTE: Students in programs leading to the BSc degree or the BA programs in Mathematics and Statistics may not take this course for credit to be applied to their program of concentration.

MATH 202 College Algebra (3 credits)

Prerequisite: MATH 201 or equivalent. Progressions, combinations, permutations, binomial theorem, mathematical induction, inequalities, polynomials, cartesian and polar forms of complex numbers, conics. Lectures and tutorials.

NOTE: Students who have received credit or an exemption for a course at the level of ACTU 256 or above; MAST 218 or above; MATH 251 or above; STAT 249 or above; or for a course having any of these courses in its sequence of prerequisites, may not take this course for credit.

NOTE: Students in programs leading to the BSc degree or the BA programs in Mathematics and Statistics may not take this course for credit to be applied to their program of concentration.

MATH 203 Differential and Integral Calculus I (3 credits)

Prerequisite: MATH 201 or equivalent. Functional notation. Differentiation of polynomials. The power, product, quotient, and chain rules. Differentiation of elementary functions. Implicit differentiation. Higher derivatives. Maxima and minima. Applications: tangents to plane curves, graphing, related rates. Approximations using the differential. Antiderivatives, definite integrals, area. Lectures and tutorials.

NOTE: Students who have received credit or an exemption for a course at the level of ACTU 256 or above; MAST 218 or above; MATH 251 or above; STAT 249 or above; or for a course having any of these courses in its sequence of prerequisites, may not take this course for credit.

NOTE: Students in programs leading to the BSc degree or the BA programs in Mathematics and Statistics may not take this course for credit to be applied to their program of concentration.

MATH 204 Vectors and Matrices (3 credits)

Prerequisite: MATH 201 or equivalent. Algebra and geometry of vectors, dot and cross products, lines and planes. System of equations, operations on matrices, rank, inverse, quadratic form, and rotation of axes. Lectures and tutorials.

NOTE: Students who have received credit or an exemption for a course at the level of ACTU 256 or above; MAST 218 or above; MATH 251 or above; STAT 249 or above; or for a course having any of these courses in its sequence of prerequisites, may not take this course for credit.

NOTE: Students in programs leading to the BSc degree or the BA programs in Mathematics and Statistics may not take this course for credit to be applied to their program of concentration.

MATH 205 Differential and Integral Calculus II (3 credits)

Prerequisite: MATH 203 or equivalent. Techniques of integration: substitutions, integration by parts, partial fractions. Improper integrals. Physical applications of the definite integral. Infinite series: tests for convergence. Power series, Taylor's theorem. Lectures and tutorials.

NOTE: Students who have received credit or an exemption for a course at the level of ACTU 256 or above; MAST 218 or above; MATH 251 or above; STAT 249 or above; or for a course having any of these courses in its sequence of prerequisites, may not take this course for credit.

NOTE: Students in programs leading to the BSc degree or the BA programs in Mathematics and Statistics may not take this course for credit to be applied to their program of concentration.

MATH 206 Algebra and Functions (3 credits)

Coordinate systems. Radicals and distance formula. Polynomials, factoring, and graphing. Relations and functions. Linear and quadratic functions, equations, and systems. Exponents, exponential and logarithmic functions and equations. Lectures and tutorials.

NOTE: Students who have received credit or exemption for a course at the level of MATH 201 or above may not take this course for credit.

NOTE: Students in programs leading to the BSc degree or the BA programs in Mathematics and Statistics may not take this course for credit to be applied to their program of concentration.

MATH 208 Fundamental Mathematics I (3 credits)

Prerequisite: MATH 206 or equivalent. This course is a prerequisite course for John Molson School of Business students*. Matrices, Gaussian elimination, input-output analysis, progressions, compound interest, annuities, permutations and combinations, probability, binomial theorem, exponential and logarithmic functions, inequalities, linear programming. Lectures and tutorials.

*NOTE: See §14.2.2 (Mature Entry) and 61.20 (Extended Credit).

NOTE: Students who have received credit or an exemption for a course at the level of ACTU 256 or above; MAST 218 or above; MATH 251 or above; STAT 249 or above; or for a course having any of these courses in its sequence of prerequisites, may not take this course for credit.

NOTE: Students in programs leading to the BSc degree or the BA programs in Mathematics and Statistics may not take this course for credit to be applied to their program of concentration.

MATH 209 Fundamental Mathematics II (3 credits)

Prerequisite: MATH 206 or equivalent. This course is a prerequisite course for John Molson School of Business students*. Limits; differentiation of rational, exponential, and logarithmic functions; theory of maxima and minima; integration. Lectures and tutorials.

*NOTE: See §14.2.2 (Mature Entry) and 61.20 (Extended Credit).

NOTE: Students who have received credit or exemption for MATH 203 or equivalent may not take this course for credit.

NOTE: Students in programs leading to the BSc degree or the BA programs in Mathematics and Statistics may not take this course for credit to be applied to their program of concentration.

MATH 212 The Fascinating World of Numbers (3 credits)

This course deals with a blend of fascinating mathematical themes in various contexts: historical, cultural, and practical. It is intended for non-mathematics students. One of the aims of the course is to demonstrate the presence of mathematics and mathematical ideas in many aspects of modern life. At a deeper level, it is also intended to explain what mathematics is all about and why some easily stated assertions, such as Fermat's last theorem, are so difficult to prove. Students who complete the course successfully should have enough understanding and knowledge of fundamental ideas and techniques of mathematics to appreciate

its power, its beauty, and its relevance in so many different fields such as architecture, art, commerce, engineering, music, and all of the sciences.

NOTE: Students who have received credit for this topic under a MATH 298 number may not take this course for credit.

NOTE: Students enrolled in a Mathematics and Statistics program and students who have taken mathematics beyond the pre-calculus level may not take this course for credit.

MATH 215 Great Ideas in Mathematics (3 credits)

Mathematics is used to unravel the secrets of nature. This course introduces students to the world of mathematical ideas and mathematical thinking. Without being overly technical, that is, without requiring any formal background from the student other than high school mathematics, the course delves into some of the great ideas of mathematics. The topics discussed range from the geometric results of the Ancient Greeks to the notion of infinity to more modern developments.

NOTE: This course is designed as a suitable elective for students following an undergraduate program. It has no formal prerequisites and will not qualify students to enrol for any other Mathematics course, and cannot be used to satisfy a Mathematics requirement in any BSc or BA program.

NOTE: Students who have received credit for INTE 215 may not take this course for credit.

SELECTED TOPICS IN MATHEMATICS AND STATISTICS

The 200-level Topics and Reading courses (MATH 217; MATH 218) are designed as elective courses for students who are not registered in a Mathematics and Statistics program. The particular topic varies from one term to the next and the material is dealt with in a manner appropriate for students who have no background in university-level mathematics.

NOTE: Students registered in a Mathematics and Statistics program may not take these courses for credit.

MATH 217 Topics in Mathematics and Statistics (3 credits)

MATH 218 Reading Course in Mathematics and Statistics (3 credits)

MATH 220 Mathematical Methods in Chemistry (3 credits)

Prerequisite: Cegep Mathematics 203 or 201-NYB or MATH 205. Partial derivatives. First-order differential equations (first- and second-order chemical reactions). Hermite, Laguerre, and Legendre equations. Solutions by power series. Eigenfunctions and eigenvalues, Sturm-Liouville theory.

MATH 251 Linear Algebra I (3 credits)

Prerequisite: MATH 204 and 205 or equivalent. Matrices and linear equations; vector spaces; bases, dimension and rank; linear mappings and algebra of linear operators; matrix representation of linear operators; determinants; eigenvalues and eigenvectors; diagonalization.

NOTE: Students who have received credit for MAST 234 or ECON 325 may not take this course for credit.

MATH 252 Linear Algebra II (3 credits)

Prerequisite: MATH 251 or equivalent. Characteristic and minimum polynomials; invariant subspaces, invariant direct sums; nilpotent operators, Jordan canonical form; cyclic subspaces; rational canonical form; bilinear and quadratic forms; inner product; orthogonality; adjoint operators and orthogonal operators.

NOTE: Students who have received credit for MAST 235 may not take this course for credit.

MATH 264 Advanced Calculus I (3 credits)

Prerequisite: MATH 204 and 205 or equivalent. Introduction to limits and continuity in \mathbb{R}^n . Multivariate calculus: the derivative as a linear approximation; matrix representation of derivatives; tangent spaces; gradients, extrema, including Lagrange multipliers, Taylor's formula and the classification of critical points.

NOTE: Students who have received credit for MAST 218 may not take this course for credit.

MATH 265 Advanced Calculus II (3 credits)

Prerequisite: MATH 264 or equivalent. Implicit functions and the implicit function theorem. Multiple integrals and change of variables. Curves, surfaces and vector calculus.

NOTE: Students who have received credit for MAST 219 may not take this course for credit.

MATH 339 Combinatorics (3 credits)

Prerequisite: 18 credits in post-Cegep Mathematics. General principles of counting, permutations, combinations, identities, partitions, generating functions, Fibonacci numbers, Stirling numbers, Catalan numbers, principle of inclusion-exclusion. Graphs, subgraphs, isomorphism, Euler graphs, Hamilton paths and cycles, planar graphs, Kuratowski's Theorem, trees, colouring, 5-colour theorem, matching, Hall's theorem.

NOTE: Students who have received credit for COMP 339 may not take this course for credit.

MATH 352 Linear Algebra III (3 credits)

Prerequisite: MATH 252. Matrices, linear transformations, determinants, metric concepts, inner-product spaces, dual spaces, spectral theorem, bilinear and quadratic forms, canonical forms for linear transformation, matrix functions, selected topics.

MATH 354 *Numerical Analysis* (3 credits)

Prerequisite: MATH 265 or equivalent; MATH 252 or equivalent, previously or concurrently. Error analysis in numerical algorithms; solution of non-linear equations; fixed point iterations, rate of convergence. Interpolations and approximations, Legendre polynomials. Numerical integration and quadrature.

NOTE: Students who have received credit for MAST 334 may not take this course for credit.

MATH 361 *Operations Research* (3 credits)

Prerequisite: MATH 251 or equivalent. Introduction to the theory of optimization; linear programming, simplex method; revised simplex method; transport and assignment problems; integer programming; introduction to graphs and networks.

NOTE: Students who have received credit for MAST 224 or 324 may not take this course for credit.

MATH 364 *Analysis I* (3 credits)

Prerequisite: 12 credits in post-Cegep Mathematics or permission of the Department. Mathematical rigour: proofs and counter-examples; quantifiers; number systems; cardinality, decimal representation, density of the rationals, least upper bound. Sequences and series; review of functions, limits and continuity.

MATH 365 *Analysis II* (3 credits)

Prerequisite: MATH 364 or equivalent. Connectedness and compactness in the reals. Intermediate value theorem: extreme values for continuous functions. Differential and integral calculus; fundamental theorem of calculus; power series.

MATH 366 *Complex Analysis I* (3 credits)

Prerequisite: MATH 265 or equivalent. Algebra and geometry of complex numbers, linear transformations, analytic functions, Laurent's series, calculus of residues, special functions.

MATH 369 *Abstract Algebra I* (3 credits)

Prerequisite: 12 credits in post-Cegep Mathematics or permission of the Department. Introduction to the ring of integers and the integers modulo N. Groups: definitions and examples; sub-groups, quotients and homomorphisms (including Lagrange's theorem, Cayley's theorem and the isomorphism theorems). Introduction to the Cauchy and Sylow theorems and applications.

MATH 370 *Ordinary Differential Equations* (3 credits)

Prerequisite: MATH 265, 251 or equivalent. Separable equations, exact equations, integrating factors, force fields, first order linear equations, input-output concept, second order equations, Sturm-Liouville problems, applications, series solutions, reduction of order, variation of parameters, nth-order linear equations with constant coefficients, Laplace transforms, block diagrams, and signal-flow graphs.

NOTE: Students who have received credit for MAST 330 may not take this course for credit.

MATH 387 *Mathematics Lab III* (2 credits)

This lab will demonstrate the use of MAPLE software for Calculus, Linear Algebra, and Statistics.

NOTE: Students who have received credit for MATH 232 may not take this course for credit.

MATH 392 *Elementary Number Theory* (3 credits)

Prerequisite: 18 credits in post-Cegep Mathematics. Number systems, division and factorization, number-theoretic functions, congruences, algebraic congruences and primitive roots, quadratic residues, diophantine equations.

MATH 397 *History of Mathematics* (3 credits)

Prerequisite: MATH 252 or permission of the Department; MATH 365. Early mathematics, Greek mathematics, European mathematics in the Middle Ages, the origin and development of analytic geometry and calculus, mathematics as free creation, the generality of mathematics in the 20th century.

MATH 433 *Calculus of Variations* (3 credits)

Prerequisite: MATH 265, 365, 370 or equivalent. Nature of problems, weak variations, the first variation, Euler's equation. The second variation, Jacobi's equation, Legendre's test, conjugate points. Relative maxima and minima, iso-perimetrical problems. Integrals with variable end points. Applications to problems in pure and applied mathematics; the principle of least action. Strong variations, the Weierstrass E-function.

MATH 464 *Real Analysis* (3 credits)

Prerequisite: MATH 265, 365 or equivalent. Metric spaces; function spaces; compactness, completeness, fixed-point theorems, Ascoli-Arzela theorem, Weierstrass approximation theorem.

MATH 466 *Complex Analysis II* (3 credits)

Prerequisite: MATH 265, 365, 366 or equivalent. Cauchy's theorem, singularities, maximum modulus principle, uniqueness theorem, normal families, Riemann mapping theorem.

MATH 467 *Measure Theory* (3 credits)

Prerequisite: MATH 265, 365; MATH 464 previously or concurrently, or equivalent. Lebesgue measure and integration on the real line, convergence theorems, absolute continuity, completeness of $L^2[0,1]$.

MATH 470 *Abstract Algebra II* (3 credits)

Prerequisite: MATH 369 or equivalent. Group action and proof of the Sylow theorems. Introduction to rings, ideals, euclidean domains, principal ideal domains and unique factorization domains; polynomial rings.

MATH 471 *Abstract Algebra III* (3 credits)

Prerequisite: MATH 470 or equivalent. Rings and modules; structure theorem of modules over principal ideal domains. Noetherian rings and modules (including Hilbert basis theorem for rings and modules). Hilbert's Nullstellensatz.

NOTE: Students who have received credit for MATH 491 may not take this course for credit.

MATH 472 *Abstract Algebra IV* (3 credits)

Prerequisite: MATH 470 or equivalent. Elements of field and Galois theory, including straight-edge-and-compass construction and unsolvability of equations of fifth degree by radicals.

NOTE: Students who have received credit for MATH 492 may not take this course for credit.

MATH 473 *Partial Differential Equations* (3 credits)

Prerequisite: MATH 370 or equivalent. Canonical forms for second order linear equations with constant coefficients, classification of linear second order equations, method of separation of variables, first order PDE's, method of characteristics. Non-linear first order equations, complete integrals, Cauchy conditions, Cauchy-Kowalewski theorem, Fourier and Laplace transforms, Green's functions, integral representations, introduction to non-linear PDE's.

NOTE: Students who have received credit for MATH 371 may not take this course for credit.

MATH 474 *Linear and Non-Linear Dynamical Systems* (3 credits)

Prerequisite: MATH 265, 365 or equivalent, or permission of the Department. Systems of linear differential equations; fundamental matrices; non-homogeneous linear systems; non-linear systems; solutions and trajectories; the phase plane; stability concepts; Liapounov's second method; periodic solutions and limit cycles; introduction to boundary-value problems and Sturm-Liouville theory.

NOTE: Students who have received credit for MATH 373 may not take this course for credit.

MATH 475 *Discrete Dynamical Systems, Chaos and Fractals* (3 credits)

Prerequisite: MATH 265, 365 or equivalent, or permission of the Department. Introduction to discrete dynamical modelling; periodic points; bifurcation; period three points; symbolic dynamics; chaos; transitivity; conjugacy; complex behaviour; introduction to fractals; computer simulations.

NOTE: Students who have received credit for MATH 379 may not take this course for credit.

MATH 478 *Non-Linear Programming* (3 credits)

Prerequisite: MATH 361 or permission of the Department. Classical methods of optimization, Lagrange multipliers, Kuhn-Tucker conditions; line search methods, quadratic programming, gradient methods, introduction to dynamic programming.

NOTE: Students who have received credit for MATH 436 may not take this course for credit.

MATH 479 *Convex and Non-Linear Analysis* (3 credits)

Prerequisite: MATH 365 or permission of the Department. Support and separation of convex sets, extreme point characterizations, convex and dual cones, Farkas' theorem; minimax theorem of Game Theory, Legendre-Fenchel conjugate, infimal convolution, subgradient calculus; Lagrangians, necessary and sufficient conditions for optimality in constrained minimization; the dual problem.

MATH 480 *Geometry and Topology* (3 credits)

Prerequisite: MATH 252, 365, 369. This is an introductory course in the geometric topology and differential geometry of surfaces. The topics covered will be selected from curvature, Theorema Egregium, Gauss-Bonnet theorem, Euler characteristic, cohomology, homotopy groups, the applications of ideas and techniques from geometry and topology in knot or graph theory and map colourings.

NOTE: Students who have received credit for MATH 380 may not take this course for credit.

MATH 494 *Topics in Pure and Applied Mathematics* (3 credits)**MATH 495 *Reading Course in Pure and Applied Mathematics*** (3 credits)**MATH 496 *Honours Project in Pure and Applied Mathematics*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

Statistics

STAT 249 *Probability I* (3 credits)

Prerequisite: MATH 264 or equivalent previously or concurrently. Axiomatic approach to probability; combinatorial probability; discrete and continuous distributions; expectation; conditional expectation; random sampling and sampling distributions.

NOTE: Students who have received credit for COMP 233 or ECON 221 may not take this course for credit.

NOTE: Students who have received credit for MAST 221 may take STAT 249 for credit only with prior permission of the Department.

NOTE: Students enrolled in a Mathematics and Statistics program who take probability/statistics courses in other departments may not receive credit for this course. Please consult a Mathematics and Statistics undergraduate program advisor.

STAT 250 Statistics (3 credits)

Prerequisite: STAT 249 or equivalent or permission of the Department; MATH 265 or equivalent previously or concurrently. Point and interval estimation; hypothesis testing; Neyman Pearson Lemma and likelihood ratio tests; introduction to correlation and regression.

NOTE: Students enrolled in a Mathematics and Statistics program who take probability/statistics courses in other departments may not receive credit for this course. Please consult a Mathematics and Statistics undergraduate program advisor.

STAT 280 Introduction to Statistical Programming (3 credits)

Prerequisite: MATH 203, 204 or equivalent. This course is an introduction to statistical programming and computational statistics using the R programming language. Basic programming concepts such as data types, control structures, and algorithms are introduced. The course illustrates data manipulation methods, descriptive analyses, and data visualization tools. The use of linear algebra, statistical simulation, and optimization functions is also illustrated. Applications and examples use real data sets.

NOTE: Students who have received credit for GEOG 264 may not take this course for credit.

STAT 287 Statistics Lab I (1 credit)

This lab is associated with STAT 249 and 250 and features problem-solving sessions for the probability examination of the Society of Actuaries and the Casualty Actuarial Society.

NOTE: Students who have received credit for MATH 329 may not take this course for credit.

STAT 342 Industrial Statistics (3 credits)

Prerequisite: STAT 250 or MAST 333. Concepts of statistical quality control; X-bar, R, P, and C control charts, acceptance sampling, sampling inspection, continuous sampling plans.

NOTE: Students who have received credit for MATH 342 may not take this course for credit.

STAT 343 Sample Survey Theory and Applications (3 credits)

Prerequisite: STAT 250 or MAST 333. Basic sampling designs and estimators; simple random sampling, stratified, cluster and systematic sampling. Sampling with unequal probabilities; ratio and regression methods of estimation.

NOTE: Students who have received credit for MATH 343 may not take this course for credit.

STAT 347 Introduction to Non-Parametric Statistics (3 credits)

Prerequisite: STAT 250 or MAST 333. Theory of rank tests, sign test, Mann-Whitney and Wilcoxon one-sample and two-sample tests, Kruskal-Wallis test, goodness of fit tests, Kolmogorov-Smirnov test, Pearson chi-square test, rank correlation and Kendall's tau.

NOTE: Students who have received credit for MATH 347 may not take this course for credit.

STAT 349 Probability II (3 credits)

Prerequisite: STAT 249 or equivalent. Markov decision process and applications. Poisson process, queuing theory, inventory theory; applications.

NOTE: Students who have received credit for MAST 223 may not take this course for credit.

STAT 360 Linear Models (3 credits)

Prerequisite: STAT 250 or equivalent. Least-squares estimators and their properties. General linear model with full rank. Analysis of residuals; adequacy of model, lack of fit test, weighted least squares; stepwise regression, Durbin-Watson statistic; one way and two way analysis of variance.

NOTE: Students who have received credit for MATH 348, ECON 222 or PSYC 316 may not take this course for credit.

STAT 380 Statistical Learning (3 credits)

Prerequisite: MATH 251 or equivalent; STAT 360 or equivalent; previously or concurrently. Supervised learning methods for regression and classification include linear models, variable selection methods, shrinkage, linear and quadratic discriminant, classification and regression trees, K-nearest neighbours, support vector machines and neural networks. Unsupervised learning methods include clustering approaches and principal component analysis.

NOTE: Students who have received credit for this topic under a STAT 497 number may not take this course for credit.

STAT 388 Statistics Lab II (2 credits)

This lab will use various softwares such as SYSTAT, SAS, SPSS, MINITAB for data analysis.

NOTE: Students who have received credit for MATH 232 may not take this course for credit.

STAT 449 Advanced Probability (3 credits)

Prerequisite: STAT 250, 349. Central limit theorems and law of large numbers, convergence of random variables, characteristic function, moment generating function, probability generating functions, random walk and reflection principle.

NOTE: Students who have received credit for MATH 451 may not take this course for credit.

STAT 450 Mathematical Statistics (3 credits)

Prerequisite: STAT 250, 349 previously or concurrently, or permission of the Department. Derivation of standard sampling distributions; distribution of order-statistics; estimation, properties of estimators; Rao-Cramer inequality, Rao-Blackwell theorem, maximum likelihood and method of moments estimation, Neyman-Pearson theory, likelihood ratio tests and their properties.

NOTE: Students who have received credit for MATH 454 may not take this course for credit.

STAT 452 *Introduction to Stochastic Processes* (3 credits)

Prerequisite: STAT 449. Continuous stochastic processes. Poisson processes, continuous time Markov process, queuing models, birth and death processes, renewal theory.

NOTE: Students who have received credit for MATH 353 may not take this course for credit.

STAT 460 *Time Series and Forecasting* (3 credits)

Prerequisite: STAT 360. Time series, forecasting by trend and irregular components (using multiple regression analysis and exponential smoothing); forecasting seasonal time series, additive and multiplicative decomposition methods, Box-Jenkins methodology, moving average, autoregressive and mixed models.

NOTE: Students who have received credit for MATH 443 may not take this course for credit.

STAT 461 *Statistical Simulation* (3 credits)

Prerequisite: STAT 349. Simulation and Monte-Carlo techniques; selected topics in operations research.

NOTE: Students who have received credit for MATH 437 may not take this course for credit.

STAT 465 *Multivariate Statistics* (3 credits)

Prerequisite: MATH 252; STAT 360 or equivalent. Multivariate normal distribution; estimation and testing of hypothesis about mean vector; multiple and partial correlation; MANOVA; principal components analysis.

STAT 468 *Design of Experiments* (3 credits)

Prerequisite: STAT 360. Construction and analysis of standard designs, including balanced designs; block designs; orthogonal designs; response surface designs.

STAT 480 *Statistical Consulting and Data Analysis* (3 credits)

Prerequisite: STAT 360 or permission of the Department. Statistical software packages in SAS or R are used for the analysis of real-life data sets. Topics involve techniques from generalized linear models, model selection, log-linear models for categorical data, logistic regression, survival models.

STAT 497 *Topics in Statistics* (3 credits)

STAT 498 *Reading Course in Statistics* (3 credits)

STAT 499 *Honours Project in Statistics* (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

Faculty

Chair

MATTHEW BARKER, PhD *University of Wisconsin-Madison*; Associate Professor

Professors

MURRAY CLARKE, PhD *University of Western Ontario*
ANDREA FALCON, PhD *Padua University*
MATTHIAS FRITSCH, PhD *Villanova University*
PABLO GILABERT, PhD *New School for Social Research*
DAVID MORRIS, PhD *University of Toronto*

Associate Professors

EMILIA ANGELOVA, PhD *University of Toronto*
ULF HLOBIL, PhD *University of Pittsburgh*
GREGORY LAVERS, PhD *University of Western Ontario*
KATHARINA NIESWANDT, PhD *University of Pittsburgh*

Assistant Professors

NABEEL HAMID, PhD *University of Pennsylvania*
JING IRIS HU, PhD *Duke University*

Affiliate Professor

BELA EGYED, PhD *McGill University*

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus
Annex S, Room: 101
514-848-2424, ext. 2500

Department Objectives

The Department of Philosophy offers a broad range of studies in philosophy. This includes courses in the history of philosophy spanning three millennia and courses covering a diverse spectrum of philosophical topics and approaches. Many of the courses are designed for undergraduates pursuing studies in other disciplines in the humanities, social sciences, and sciences. The aim is to contribute to the development of critical, informed, and open minds.

Programs

The major and minor programs give students an understanding of the aims, methods, and content of a range of major philosophical periods and traditions. The honours program prepares students for graduate study in philosophy.

*Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.*

- 60 **BA Honours in Philosophy**
Stage I
 - 12 PHIL 214³, 232³, 260³, 261³
 - 3 Chosen from PHIL 263³, 265³
Stage II
 - 6 PHIL 360³, 361³
 - 3 Chosen from PHIL 318³, 328³, 364³, 365³
 - 3 Chosen from PHIL 330³, 342³
 - 3 Chosen from PHIL 362³, 374³, 377³, 380³
 - 12 PHIL elective or cognate credits at the 300 or 400 level*

Stage III

- 3 Chosen from PHIL 414³, 416³, 420³, 425³, 463³, 465³, 489³
- 3 Chosen from PHIL 430³, 440³, 471³
- 3 Chosen from PHIL 480³, 481³, 482³, 483³, 485³, 486³, 487³
- 9 PHIL elective or cognate credits at the 400 level*

*PHIL elective or cognate credits to be chosen in consultation with the Department.

NOTE: Students seeking admission to the honours program may apply either for direct entry on the University application form or, once in the program, to the departmental undergraduate advisor normally following the completion of 30 credits.

36 BA Major in Philosophy

Stage I

- 3 Chosen from PHIL 210³, 214³
- 9 PHIL 232³, 260³, 261³
- 3 Chosen from PHIL 263³, 265³

Stage II

- 6 PHIL 360³, 361³
- 3 Chosen from PHIL 362³, 374³, 377³, 380³

Stage III

- 6 PHIL elective credits at any level
- 6 PHIL elective credits at the 400 level*

*PHIL elective or cognate credits to be chosen in consultation with the Department.

24 Minor in Philosophy

- 6 Chosen from PHIL 232³, 263³, 265³
- 6 PHIL elective credits at the 200 level or higher
- 12 PHIL elective credits from the 300 level or higher

Courses

PHIL 201 Problems of Philosophy (3 credits)

In this course, students are introduced to philosophical problems such as: What is the nature of reality? How does one know what is real, and how is it distinct from misleading appearances or illusion? What is knowledge? Does knowledge require certainty? How is knowledge distinct from belief? Are people free? That is to say, do they choose their actions or are their actions determined by causes beyond their control? If people are not free, then how can they be held responsible for their actions? Can God's existence be proven? How is the mind related to the body, if at all? What is it to be a morally good person?

PHIL 210 Critical Thinking (3 credits)

This course is an introduction to argumentation and reasoning. It focuses on the kinds of arguments one is likely to encounter in academic work, in the media, and in philosophical, social, and political debate. The course aims to improve students' ability to advance arguments persuasively and their ability to respond critically to the arguments of others. Students will find the skills they gain in this course useful in virtually every area of study.

PHIL 214 Deductive Logic (3 credits)

This course presents the modern symbolic systems of sentential and predicate logic. Students transcribe English sentences into a logical form, analyze the concepts of logical truth, consistency, and validity, as well as learn to construct derivations in each system.
NOTE: This course may not be taken for credit by students who have taken PHIL 212.

PHIL 216 Introduction to the Philosophy of Language (3 credits)

This course provides an introduction to the main problems in the philosophy of language, concerned with the analysis of the concepts of meaning, reference, truth, necessity.

PHIL 220 Introduction to the Philosophy of Science (3 credits)

This course provides an introduction to the main problems in the philosophy of science. These include the structure of scientific theories, various models of scientific method and explanation, and the existence of unobservables.

NOTE: Students who have received credit for INTE 250 or PHIL 228 may not take this course for credit.

PHIL 226 Introduction to Philosophy of Mind (3 credits)

This course examines philosophical problems about mind, and competing solutions. Topics may include: How does the mind relate to the brain or body? Could computers think? How can one know what other minds are thinking? What is the nature of conscious experience? Which animals are conscious? What determines what one's thoughts are about?

PHIL 232 Introduction to Ethics (3 credits)

Philosophical discussions of ethics have both practical significance (What should one do?) and theoretical interest (What does it mean to say "That's the right thing to do"?). In this course, students are introduced to some representative approaches to ethical

thought and action. General questions about the nature of ethical reasoning are also considered. For example: Are there objective ethical truths or are ethical judgments merely relative to social norms? An effort is made to incorporate those ethical issues which are of specific importance to contemporary society.

PHIL 233 *Applied Ethics* (3 credits)

This course focuses on ethical theory and its application to contemporary issues. The course covers central ethical theories such as virtue ethics (Aristotle), deontology (Kant), and utilitarianism (Mill). It applies these theories to contemporary moral issues such as humans' relation to the environment and nonhuman animals, abortion, consumerism, the use of recreational drugs, the rationing of health-care resources, and national and international distributive justice.

NOTE: Students who have received credit for this topic under a PHIL 298 number may not take this course for credit.

PHIL 235 *Biomedical Ethics* (3 credits)

This course is primarily concerned with contemporary biomedical debates, many of which are of current social and political significance: euthanasia and physician-assisted suicide, patients' rights, animal experimentation, organ donation and transplantation, palliative care, abortion, genetic engineering, and new reproductive technologies.

PHIL 236 *Environmental Ethics* (3 credits)

This course examines recent developments in ethical theories as they are applied to questions of environmental practices. Topics discussed may include the moral significance of nonhuman nature, duties to respond to climate change, economics and sustainable environmental protection, and environmental justice.

NOTE: Students who have received credit for this topic under a PHIL 298 or 398 number may not take this course for credit.

PHIL 241 *Philosophy of Human Rights* (3 credits)

This course investigates basic philosophical questions regarding human rights, such as their status between morality and law, their scope and the problem of relativism, the concept of human dignity, their relation to democracy, whether national or cosmopolitan, and the debate over the justifiability and feasibility of socio-economic rights as human rights.

NOTE: Students who have received credit for this topic under a PHIL 298 number may not take this course for credit.

PHIL 260 *Presocratics and Plato* (3 credits)

This course is a study of ancient Greek philosophy from its beginnings to Plato.

PHIL 261 *Aristotle and Hellenistic Philosophy* (3 credits)

Prerequisite: PHIL 260, or permission of the Department. This course is an introduction to Aristotle and the main lines of thought in Hellenistic philosophy, including Stoicism, Epicureanism and Scepticism.

PHIL 263 *Introduction to Epistemology* (3 credits)

An introduction to the basic concepts and problems in epistemology, including belief, knowledge, scepticism, perception, and intentionality.

PHIL 265 *Introduction to Metaphysics* (3 credits)

This course is an introduction to metaphysics and the attempt to understand a mind-independent reality. This involves distinguishing those aspects of reality that are dependent on the mind from those aspects that are independent of the mind. For example, are colours mind-independent properties? Are there universal values and if so, are they mind-independent? Is there a God, and if so, what must that God be like?

PHIL 266 *Introduction to Philosophy of Religion* (3 credits)

This course explores a long philosophical tradition concerned with various issues associated with the idea of God, such as the various proofs for God's existence, and questions such as: How does the existence of evil affect one's views about God and the nature of God? What is the status of miracles? What are the varieties of religious experience, what is the nature of religious faith? How is one to understand religious language?

PHIL 275 *From Modern to Postmodern: Philosophical Thought and Cultural Critique* (3 credits)

This course focuses on key developments in modern and postmodern philosophy and their cultural influences. The course provides an introduction to philosophers (such as Kant, Nietzsche, and Foucault) and philosophical movements (such as empiricism, existentialism, and post-structuralism) of the modern era. It also introduces students to the tremendous influence that philosophical theory has had on the arts, on social and political movements, and on virtually every field of study in the humanities and social sciences.

PHIL 280 *Classical Chinese Philosophy* (3 credits)

This course introduces the philosophical traditions of the ancient period of Chinese history of philosophy, namely the Pre-Qin period (before 202 BCE).

PHIL 281 *Philosophy in the Islamic World* (3 credits)

An introduction to philosophy in classical and modern Islamic contexts. Authors may include al-Fārābī, ibn Sīnā, ibn Tufayl, al-Ghazālī, and ibn Rushd (classical); Muhammad Iqbal, Rokeya Sakhawat Hosein, Amina Wadud, Kecia Ali, and Abdol Karim Soroush (modern). Topics may include cosmology, the nature of God, causation, skepticism and certainty, authority and democracy, gender and sexuality, and environmental ethics.

PHIL 285 *World Philosophy* (3 credits)
This course explores philosophical traditions or problems from a diversity of cultures and historical periods from around the world.

PHIL 298 *Introductory Topics in Philosophy* (3 credits)

PHIL 299 *Introductory Topics in Philosophy* (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

PHIL 316 *Intermediate Logic* (3 credits)

Prerequisite: PHIL 214. This course is intended for students who are interested in extending their knowledge of logic beyond what is taught in an introductory course. Topics may include metatheory, computability, alternative logics or modal logics.

NOTE: Students who have received credit for PHIL 314 or 315 may not take this course for credit.

PHIL 317 *Inductive and Abductive Logic* (3 credits)

Prerequisite: PHIL 210 or 214, or permission of the Department. This course introduces approaches to inductive and abductive logic, such as probabilistic approaches. Topics may include classic and new problems for everyday and scientific induction, causal reasoning, the nature of evidence, and how to interpret probabilities.

NOTE: Students who received credit for PHIL 218 may not take this course for credit.

PHIL 318 *Philosophy of Biology* (3 credits)

Prerequisite: Three credits in Philosophy or permission of the Department. This course examines a variety of philosophical issues in biology. Topics covered may include: fitness, function, units of selection, the nature of species, reductionism, biological explanation of human behaviour and the ethical and epistemological consequences of evolutionary theory.

PHIL 324 *Philosophy of Social Science* (3 credits)

Prerequisite: Three credits in Philosophy or 12 credits in social science, or permission of the Department. This course offers a philosophical examination of the structure and methodology of the social sciences.

PHIL 325 *Philosophical Psychology* (3 credits)

Prerequisite: PHIL 226, or permission of the Department. This course philosophically investigates the psychology of mind and cognition. Example questions: Which model of the mind's architecture is best? Could all of psychology eventually be reduced to physics? How do sensory-motor systems and the environment shape cognition? How does one ascribe beliefs and desires to others? How well does one know one's own beliefs?

PHIL 327 *Kinds of Minds* (3 credits)

Prerequisite: Three credits in Philosophy, or Computer Science, or Psychology, or Biology, or permission of the Department. This course explores human, animal, and artificial minds by combining philosophy, artificial intelligence, and neurobiology. Topics may include: What distinguishes human minds from those of non-human animals? Could robots endowed with human-like sensory systems exhibit mental traits? How do evolution and experience combine to explain the origin of cognition?

PHIL 328 *Intermediate Philosophy of Science* (3 credits)

Prerequisite: Three credits in Philosophy or permission of the Department. This course provides an in-depth study of the nature of justification in science, theories of scientific explanation, the rationality of theory change, and debates concerning realism and antirealism.

PHIL 330 *Contemporary Ethical Theory* (3 credits)

Prerequisite: PHIL 232 or 233 or 235 or 236 or 241, or permission of the Department. This course provides an examination of contemporary ethical theories such as deontology, utilitarianism, virtue theory, feminist ethics, and narrative ethics.

NOTE: Students who have received credit for this topic under a PHIL 398 number may not take this course for credit.

PHIL 333 *Philosophical Ideas in Literature* (3 credits)

Prerequisite: Three credits in Philosophy, or permission of the Department. This course presents a comparative approach to philosophical ideas in literature, which may involve authors from different historical time frames, different world views, or different perspectives of a single author.

PHIL 339 *Aesthetics* (3 credits)

Prerequisite: Three credits in Philosophy, or permission of the Department. A survey of aesthetic theories in philosophy, with particular attention to major developments in the modern and contemporary periods.

PHIL 342 *Political Philosophy* (3 credits)

Prerequisite: Three credits in Philosophy or Political Science, or permission of the Department. This course provides analyses of important political and philosophical concepts such as globalization, nationalism, power, multiculturalism, tolerance, liberty, equality, community, economic justice, and democracy.

PHIL 343 *Philosophy of Law: General Jurisprudence* (3 credits)

This course provides a philosophical study of natural law theory, legal positivism, and legal realism. The associated issues of legal moralism, legal justice, legal obligation and its limits, and legal reasoning are addressed and applied to cases.

PHIL 345 *Legal Philosophy: Legal Rights and Duties* (3 credits)

This course offers a philosophical study of the nature, sources, and functions of rights and duties. Attention is given to the particular rights associated with contract and property, and their abuse, to duties arising by law alone, to excuses and justifications for failure to fulfill duties, and to enforcement, punishment, and compromise.

PHIL 352 *Philosophy of History* (3 credits)

Prerequisite: Three credits in History or Philosophy, or permission of the Department. An analysis of the nature of historical knowledge and explanation is followed by a study of classical and contemporary attempts to elucidate the meaning of history. Authors may include Augustine, Vico, Kant, Hegel, Marx, Spengler, Popper, Toynbee, Arendt.

PHIL 356 *Philosophy of Education* (3 credits)

This course examines philosophical principles underlying educational theories and problems arising from the practical implementation of those theories.

PHIL 360 *Early Modern Philosophy I: 17th Century* (3 credits)

Prerequisite: 12 credits in Philosophy including PHIL 260 and 261, or permission of the Department. This course is a study of central metaphysical, epistemological, and ethical themes in the work of authors such as Descartes, Hobbes, Cavendish, Spinoza, Conway, Malebranche, Locke, and Leibniz.

PHIL 361 *Early Modern Philosophy II: 18th Century* (3 credits)

Prerequisite: 12 credits in Philosophy including PHIL 260 and 261, or permission of the Department. This course is a study of central metaphysical, epistemological, and ethical themes in the work of authors such as Locke, Leibniz, Astell, Masham, Wolff, Berkeley, du Châtelet, Hume, Reid, and Kant.

PHIL 362 *Medieval Philosophy* (3 credits)

Prerequisite: PHIL 260 or 261, or permission of the Department. This course is an introduction to central themes in logic, physics, metaphysics, and moral and political philosophy from the fourth to the 14th century. Authors examined may include Augustine, Boethius, Anselm, ibn Sīnā, ibn Rushd, Thomas Aquinas, Moses ben Maimon, Duns Scotus, and William of Occam.

NOTE: Students who have received credit for PHIL 363 may not take this course for credit.

PHIL 364 *Intermediate Epistemology* (3 credits)

Prerequisite: Three credits in Philosophy, or permission of the Department. This course presents an intermediate study of major contemporary issues in the theory of knowledge, such as scepticism, nonempirical knowledge, contextualism, virtue epistemology, experimental epistemology, and debates between internalists and externalists concerning justification and knowledge.

PHIL 365 *Intermediate Metaphysics* (3 credits)

Prerequisite: Three credits in Philosophy, or permission of the Department. This course presents an intermediate study of major contemporary issues in metaphysics, such as realism vs. anti-realism concerning the external world; mental causation, personhood and theories of human nature; universals, essences and natural kinds.

PHIL 371 *Philosophy of Feminism* (3 credits)

Prerequisite: PHIL 232 or 263, or permission of the Department. This course provides an introduction to some of the central issues in contemporary feminist philosophy. The key arguments in feminist epistemology, feminist ethics, and sex and gender studies are discussed from a variety of perspectives.

PHIL 372 *Philosophy of Race* (3 credits)

This course introduces philosophical approaches to concepts of race and racism. The course may explore metaphysical, epistemological, moral, social, political, scientific, or historical topics concerning race.

PHIL 374 *Kant and 19th-Century Philosophy* (3 credits)

Prerequisite: Six credits in Philosophy, or permission of the Department. This course examines Kant and some of the main currents of post-Kantian philosophy, possibly including Hegel and post-Hegelians, the romantic reaction, positivism, and pragmatism.

PHIL 377 *20th-Century Continental Philosophy* (3 credits)

Prerequisite: Six credits in Philosophy, or permission of the Department. This course examines 20th-century French and German philosophy. Philosophers examined may include Husserl, Heidegger, Merleau-Ponty, Foucault, Derrida, and Habermas.

PHIL 378 *American Pragmatism* (3 credits)

Prerequisite: Six credits in Philosophy, or permission of the Department. This course provides an analysis of some classical American pragmatists, such as Peirce, Dewey, James and C.I. Lewis, together with exponents of contemporary neopragmatism, such as Putnam, Rorty, and Quine.

PHIL 380 *Chinese Philosophy: From Han to the 19th Century* (3 credits)

This course introduces the philosophical traditions of Chinese philosophy from 202 BCE to the 19th century. It examines the development of Confucianism, Daoism, and Buddhism and discusses topics in ethics, political philosophy, metaphysics, and epistemology.

PHIL 385 *Marxism* (3 credits)

This course provides a critical analysis of the ideas of Marx and their modern development.

PHIL 387 *Existentialism* (3 credits)

This course acquaints the student with the fundamentals of the existentialist movement as a philosophical perspective. Philosophers considered may include Kierkegaard, Nietzsche, Heidegger, Sartre, Merleau-Ponty, Jaspers, Marcel, and Berdyaev.

PHIL 389 *Epistemology and Ethics in the Digital Age* (3 credits)

This course examines epistemological and ethical implications of digital technologies (e.g. surveillance, artificial intelligence, and big data) in areas such as privacy, power relations, and the generation and sharing of knowledge.

NOTE: Students who have received credit for this topic under a PHIL 398 number may not take this course for credit.

PHIL 398 *Intermediate Special Topics in Philosophy* (3 credits)

PHIL 399 *Intermediate Special Topics in Philosophy* (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

PHIL 414 *Advanced Topics in Logic* (3 credits)

Prerequisite: PHIL 214 or permission of the Department. This course presents the fundamentals of an advanced topic in logic.

PHIL 416 *Philosophy of Language* (3 credits)

Prerequisite: 12 credits in Philosophy or permission of the Department. This course is an advanced study of a central problem in recent philosophy of language.

PHIL 420 *Advanced Philosophy of Science* (3 credits)

Prerequisite: 12 credits in Philosophy, or permission of the Department. This course explores advanced topics in the philosophy of science, such as theory change and justification, realism and anti-realism, or reductionism; or specific issues in philosophy of physics or biology, such as evolution and development.

PHIL 425 *Philosophy of Mind: Cognitive Science* (3 credits)

Prerequisite: PHIL 226 or 325 or 327, or permission of the Department. This interdisciplinary course combines the philosophical study of mind with current research in psychology, neuroscience, linguistics, and computer science.

PHIL 430 *Advanced Studies in Ethics* (3 credits)

Prerequisite: PHIL 232 or 330, or permission of the Department. This course offers a study of one or more of the following ethical theories: deontology, utilitarianism, virtue theory, feminist ethics, care ethics, narrative ethics, contractualism, and discourse ethics, with a focus on ethical reasoning and motivation.

PHIL 440 *Advanced Political Philosophy* (3 credits)

Prerequisite: PHIL 241 or 342, or permission of the Department. This course uses selected historical or contemporary writings in political philosophy to treat topics such as those of power, freedom, equality, distributive justice, law, and the boundaries of the political. Specific topics for this course are stated in the Undergraduate Class Schedule.

PHIL 441 *(also listed as BIOL 421)*

Philosophical Foundations of Biology (3 credits)

Prerequisite: 12 credits in Philosophy or permission of the Department. This course helps students critically engage biology's philosophical foundations. Topics typically include the nature of scientific reasoning, testing, and evidence in biology; how best to discover, define, and apply biological concepts; and how to structure the aims of biology to fit our diverse and changing societies.

NOTE: Students who have received credit for BIOL 421 may not take this course for credit.

PHIL 463 *Honours Seminar in Epistemology* (3 credits)

Prerequisite: PHIL 263 or 265 or 364 or 365, and 12 credits in Philosophy, or permission of the Department. This course presents an intensive study of major contemporary issues in the theory of knowledge.

PHIL 465 *Honours Seminar in Metaphysics* (3 credits)

Prerequisite: PHIL 263 or 265 or 364 or 365, and 12 credits in Philosophy, or permission of the Department. This course presents an intensive study of major contemporary issues in metaphysics.

PHIL 471 *Advanced Topics in Feminist Theory* (3 credits)

Prerequisite: PHIL 371, or permission of the Department. An examination of recent issues in one of feminist ethics, epistemology or metaphysics. Subject will vary from year to year.

PHIL 472 *Advanced Topics in Phenomenology* (3 credits)

Prerequisite: 12 credits in Philosophy, or permission of the Department. This course studies themes or topics in recent research in phenomenology, such as nature, life, place, body, mind, illness, and disability.

NOTE: Students who have received credit for this topic under a PHIL 498 number may not take this course for credit.

PHIL 473 Advanced Topics in Continental Philosophy (3 credits)

Prerequisite: 12 credits in Philosophy including PHIL 374 or 377, or permission of the Department. This course focuses on a selected theme or topic within or via the texts of the tradition of continental philosophy. Example topics include language, the world, animality, social or environmental justice, the political, violence, and memory.

NOTE: Students who have received credit for this topic under a PHIL 498 number may not take this course for credit.

PHIL 474 Current Research Topics in Continental Philosophy (3 credits)

Prerequisite: 12 credits in Philosophy including PHIL 374 or 377, or permission of the Department. This course examines recent research on major figures, or relations between major authors, in continental philosophy.

NOTE: Students who have received credit for this topic under a PHIL 498 number may not take this course for credit.

PHIL 475 Contemporary Issues in Analytic Philosophy (3 credits)

Prerequisite: 12 credits in Philosophy, or permission of the Department. This course addresses work by contemporary analytic philosophers on a chosen topic.

NOTE: Students who have received credit for this topic under a PHIL 498 number may not take this course for credit.

PHIL 480 Plato (3 credits)

Prerequisite: 12 credits in Philosophy including PHIL 260 and 261, or permission of the Department. Selected themes in the major dialogues of Plato are analyzed in depth.

PHIL 481 Aristotle (3 credits)

Prerequisite: 12 credits in Philosophy including PHIL 260 and 261, or permission of the Department. Selected passages from the major works of Aristotle are analyzed in depth.

PHIL 482 Advanced Topics in Ancient Philosophy (3 credits)

Prerequisite: PHIL 260, 261. An in-depth study of principal figures or important topics in ancient Greek or Roman philosophy.

PHIL 483 Advanced Topics in the History of Philosophy (3 credits)

Prerequisite: 12 credits in Philosophy, or permission of the Department. This course presents an intensive study of selected topics in the history of philosophy.

PHIL 484 Advanced Topics in World Philosophy (3 credits)

Prerequisite: 12 credits in Philosophy, or permission of the Department. This course presents an intensive study of selected topics in world philosophy.

PHIL 485 Kant (3 credits)

Prerequisite: 12 credits in Philosophy, or permission of the Department. This course is an intensive study of Kant's *Critique of Pure Reason* and related works.

PHIL 486 Hegel (3 credits)

Prerequisite: 12 credits in Philosophy, or permission of the Department. This course is an analysis of selected themes from Hegel's works.

PHIL 487 Origins of Analytic Philosophy (3 credits)

Prerequisite: 12 credits in Philosophy, or permission of the Department. This course investigates selected philosophical problems and methodologies in the late-19th- and early-20th-century traditions that developed into analytic philosophy.

PHIL 488 Topics in 20th-Century Analytic Philosophy (3 credits)

Prerequisite: 12 credits in Philosophy, or permission of the Department. This course focuses on figures in 20th-century analytic philosophy and/or the topics that attracted their attention.

PHIL 489 Phenomenology (3 credits)

Prerequisite: 12 credits in Philosophy, or permission of the Department. This course examines classic themes, texts and methodological issues in phenomenology, typically focusing on the work of figures such as Husserl, Heidegger, and Merleau-Ponty.

PHIL 490 Continental Philosophy (3 credits)

Prerequisite: 12 credits in Philosophy including PHIL 374 or 377, or permission of the Department. This course investigates selected philosophical problems and methodologies as they arose in the late-19th- and early-20th-century traditions that came to be called continental philosophy.

PHIL 495 Honours Essay (3 credits)

Prerequisite: Enrolment in Honours Philosophy; 30 credits in Philosophy. With permission of the Department, an honours student may arrange a tutorial program with a faculty member culminating in a research project not exceeding 40 pages.

PHIL 496 Tutorial in Philosophy

(3 credits)

Prerequisite: Permission of the Department. This is an opportunity to carry out a personal project under the supervision of a

faculty member. An intensive reading program is undertaken in the student's area of special interest. Tutorials may be arranged with any faculty member, and the student must make these arrangements and obtain *written* permission in advance of registration.
NOTE: Students who have received credit for PHIL 497 may take this tutorial for credit provided the subject matter is different.

PHIL 497 *Tutorial in Philosophy* (3 credits)

Prerequisite: Permission of the Department. See PHIL 496 for description.

NOTE: Students who have received credit for PHIL 496 may take this tutorial for credit provided the subject matter is different.

PHIL 498 *Advanced Topics in Philosophy* (3 credits)

PHIL 499 *Advanced Topics in Philosophy* (6 credits)

Prerequisite: 12 credits in Philosophy, or permission of the Department. Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

Faculty

Chair

ALEXANDRE CHAMPAGNE, PhD *Cornell University*, Associate Professor

Professor Emeritus

TRUONG VO-VAN, PhD *University of Toronto*

Professors

MARIANA FRANK, PhD *University of Toronto*

CALVIN S. KALMAN, PhD *University of Rochester*; Provost's Distinction

SUSHIL K. MISRA, PhD *St. Louis University*

PANAGIOTIS VASILOPOULOS, PhD *Université de Montréal*

VALTER ZAZUBOVITS, PhD *University of Tartu*

Associate Professors

PABLO BIANUCCI, PhD *University of Texas at Austin*

CLAUDINE GAUTHIER, PhD *Université de Montréal*

CHRISTOPHE GROVA, PhD *Université de Rennes, France*

LASZLO KALMAN, PhD *University of Szeged*

INGO SALZMANN, PhD *Humboldt University of Berlin*

RAMESH C. SHARMA, PhD *University of Toronto*

JOSEPH SHIN, MSc *Cornell University*

Assistant Professor

BRANDON HELFIELD, PhD *University of Toronto*

SAURABH MAITI, PhD *University of Wisconsin-Madison*

RACHAEL MANSBACH, PhD *University of Illinois at Urbana-Champaign*

For the complete list of faculty members, please consult the Department website.

Location

Loyola Campus

Richard J. Renaud Science Complex, Room: SP 365.02

514-848-2424, ext. 3270

Department Objectives

Breakthroughs in physics have revolutionized thinking about the fundamentals of matter, motion, and energy. Physics is the study of these fundamentals. The Department of Physics is committed to preparing students for careers or advanced study in the theoretical, applied, and biological aspects of physics. Students in the co-op program gain valuable job experience and discover the career opportunities open to them in addition to regular coursework.

Programs

Students are required to complete the appropriate entrance profile for entry into the program (see §31.002 — Programs and Admission Requirements — Profiles).

*Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.*

42 Core Program

6 MAST 218³, 219³

36 PHYS 230³, 232³, 236³, 245³, 252³, 253³, 334³, 335³, 354³, 367³, 377³, 435³

72 BSc Honours in Physics

42 Core Program

6 PHYS 496⁶

AND

	<i>Concentration in Physics</i>
18	PHYS 330 ³ , 345 ³ , 355 ³ , 459 ³ , 468 ³ , 478 ³
6	Chosen from PHYS 289 ³ , 370 ³ , 389 ³ , 436 ³ , 440 ³ , 443 ³ , 445 ³ , 458 ³ , 498 ³
	OR
	<i>Concentration in Biophysics</i>
12	Biol 266 ³ ; PHYS 260 ³ , 330 ³ , 460 ³
9	Chosen from CHEM 235 ³ , 271 ³ , 431 ³ ; PHYS 289 ³ , 345 ³ , 370 ³ , 389 ³ , 440 ³ , 445 ³ , 459 ³ , 461 ³ , 462 ³ , 463 ³
3	Chosen from BIOL 261 ³ , 340 ³ , 367 ³ , 371 ³ ; PHYS 443 ³
66	BSc Specialization in Physics
	<i>Option A: Physics</i>
42	Core Program
21	PHYS 330 ³ , 345 ³ , 355 ³ , 459 ³ , 468 ³ , 478 ³ , 497 ³
3	Chosen from PHYS 370 ³ , 436 ³ , 440 ³ , 443 ³ , 445 ³ , 458 ³ , 498 ³
66	BSc Specialization in Physics
	<i>Option B: Biophysics</i>
42	Core Program
15	Biol 266 ³ ; PHYS 260 ³ , 330 ³ , 460 ³ , 497 ³
6	Chosen from CHEM 235 ³ , 271 ³ , 431 ³ ; PHYS 345 ³ , 370 ³ , 440 ³ , 445 ³ , 459 ³ , 461 ³ , 462 ³ , 463 ³ , 468 ³
3	Chosen from BIOL 261 ³ , 340 ³ , 367 ³ , 371 ³ ; PHYS 443 ³
45	BSc Major in Physics
42	Core Program
3	Chosen from any PHYS course in consultation with an advisor
24	Minor in Biophysics
9	MAST 218 ³ ; PHYS 252 ³ , 260 ³
3	Chosen from PHYS 232 ³ or BIOL 266 ³
3	Chosen from PHYS 236 ³ or 253 ³
9	Chosen from PHYS 334 ³ , 443 ³ , 445 ³ , 460 ³ , 461 ³

Physics Co-operative Program

Director

LASZLO KALMAN, Associate Professor

The Physics co-operative program is offered to all full-time students who are enrolled in the Department and meet the academic requirements for co-op. Students interested in applying for the Physics co-op should refer to §24 where a full description of the admission requirements is provided.

Academic content is very similar to that of the regular programs, with some specific recommendations for courses to improve the students' job skills. While it is hoped that most of the positions are in the Montreal area, students must be prepared to work in other parts of Canada.

Students are supervised personally and must meet the requirements specified by the Faculty of Arts and Science and the Institute for Co-operative Education in order to continue their studies in the co-op format.

Liaison between the student, the employers, and the Institute for Co-operative Education is provided by the Physics co-op committee, which includes the student's advisors.

Please refer to §24 for additional information.

Physics C.Edge (Career Edge) Option

The Physics C.Edge option is offered through the Institute for Co-operative Education. Like the co-operative program, C.Edge allows students to gain practical experience through work terms related to their field of study. It is limited to one or two work terms, normally in the summer. Students interested in applying for the C.Edge option should refer to §24 where a full description is provided.

Courses

PHYS 200 *Frontiers in Physics – Without Mathematics* (3 credits)

This course is a non-mathematical introduction to cutting-edge physics. Topics may include quantum mechanics, Einstein's theory of relativity, cosmology, and particle physics. Students investigate fundamental concepts in physics along with cutting-edge applications like quantum computing and biomedical imaging. Current physics publications and resources, as well as careers involving physics, are discussed.

PHYS 204 Mechanics (3 credits)

Prerequisite: MATH 203 or equivalent, previously or concurrently. Kinematics, Newton's laws of motion. Statics, dynamics.

Conservation of momentum and energy. Rotational motion. Periodic motion. Lectures only.

NOTE: Students in programs leading to the BSc degree may not take this course for credit to be applied to their program of concentration. See PHYS 224 for laboratory associated with this course.

PHYS 205 Electricity and Magnetism (3 credits)

Prerequisite: MATH 203; PHYS 204 or equivalent. Electrical charge and Coulomb's law. Electrical field and potential. Capacity, steady state, and transient currents. Electromagnetic induction and alternating currents. Lectures only.

NOTE: Students in programs leading to the BSc degree may not take this course for credit to be applied to their program of concentration. See PHYS 225 for laboratory associated with this course.

PHYS 206 Waves and Modern Physics (3 credits)

Prerequisite: PHYS 204 or equivalent. Simple harmonic motion. Wave propagation. Superposition. Stationary waves. Doppler effect. Interference. Diffraction. Photoelectric effect. Compton effect. Bohr's atom. Radioactivity, fission, fusion. Lectures only.

NOTE: Students in programs leading to the BSc degree may not take this course for credit to be applied to their program of concentration. See PHYS 226 for laboratory associated with this course.

PHYS 210 Discoveries in Physics (6 credits)

A non-mathematical course in physics specifically designed for students who have had little or no experience in physics. This course traces the fundamental ideas from which modern physics has emerged, and attempts to develop insights into the understanding of natural phenomena. Lectures only.

NOTE: Students in programs leading to the BSc degree may not take this course for credit.

PHYS 224 Introductory Experimental Mechanics (1 credit)

Prerequisite: PHYS 204 previously or concurrently, or permission of the Department. This laboratory course covers fundamental experiments in classical mechanics. Experiments include resolution of forces, centrifugal force and conservation of energy, pendulums. Laboratory only, 10 experiments.

NOTE: Students in programs leading to the BSc degree may not take this course for credit to be applied to their program of concentration.

PHYS 225 Introductory Experimental Electricity (1 credit)

Prerequisite: PHYS 205 previously or concurrently, or permission of the Department. This laboratory course covers fundamental experiments in electricity. Experiments include Kirchhoff's law, resistors in series and parallel, oscilloscope, induction, alternating current. Laboratory only, 10 experiments.

NOTE: Students in programs leading to the BSc degree may not take this course for credit to be applied to their program of concentration.

PHYS 226 Introductory Experimental Waves and Modern Physics (1 credit)

Prerequisite: PHYS 206 previously or concurrently, or permission of the Department. This laboratory course covers the fundamental experiments in waves and modern physics. Experiments include spectrometer measurements. Newton's rings and measurements involving radioactivity. Laboratory only, 10 experiments.

NOTE: Students in programs leading to the BSc degree may not take this course for credit to be applied to their program of concentration.

PHYS 230 Experimental Physics I (3 credits)

Prerequisite: Enrolment in a Physics program; PHYS 204, 205, 206, 224, 225, 226; or equivalent; nine credits in Physics previously or concurrently. This course introduces the basic techniques, methods and tools used in experimental physics. Students acquire basic measurement, data analysis and report writing skills through a series of physics experiments, lectures and tutorials. They learn to use electronic instruments, to evaluate the uncertainty of measurements, and to analyze their data with different methods, using proper data analysis software to display and discuss their results correctly through the production of laboratory reports.

NOTE: Students who have received credit for PHYS 291, 293, or 297 may not take this course for credit.

PHYS 232 Methods of Theoretical Physics I (3 credits)

Prerequisite: MAST 218 previously or concurrently. First-order differential equations, linear and separable equations, integrating factors, applications. Second-order linear differential equations. Fundamental solutions, linear independence, Wronskian.

Nonhomogeneous equations, general solution, method of undetermined coefficients, variation of parameters, applications.

Power-series solutions of differential equations, examples. Systems of first-order linear equations. Review of linear algebra, diagonalization of matrices, eigenvalues. Lectures only.

PHYS 235 Object-Oriented Programming and Applications (3 credits)

Prerequisite: MATH 203, 204. Introduction to problem solving with computers; programming. Basic elements of an object-oriented language; basic data types, objects, expressions, simple programs. Control structures: library functions, one- and two-dimensional arrays. Introduction to mathematics software (Maple and/or Mathematica) and to programming languages (C/C++ and/or Fortran 77). The material is illustrated with simple examples from physics.

NOTE: Students may replace this course with COMP 248.

NOTE: Students who have received credit for COMP 248 or PHYS 233 may not take this course for credit.

PHYS 236 *Numerical Methods in Physics with Python* (3 credits)

Prerequisite: MATH 204, 205. This course is an introduction to computational physics using Python, assuming no background knowledge in programming. Topics may include basic programming, data analysis and visualization, curve fitting, numerical differentiation and integration, solving systems of linear equations, and solving differential equations. Material is presented in the context of applications in physics, including medical biophysics, fluid mechanics, and optics.

PHYS 245 *Classical Mechanics* (3 credits)

Prerequisite: MATH 204, 205 or equivalent. Statics of rigid bodies, work and potential functions, motion in uniform field. Particle motion in an accelerated frame, rotation coordinate systems, motion in a resisting medium, small oscillations, damped (harmonic) motion, motion under central forces, mechanics of a rigid body, dynamics of systems of particles, motion of rigid bodies in three dimensions, elements of Lagrangian mechanics. Lectures only.

PHYS 252 *Optics* (3 credits)

Prerequisite: PHYS 206. Wave equation, phasors, EM waves, linear, circular and elliptical polarization, polariscope, Malus' law, dichroism, polaroid, polarizing Prism, quarter and half wave plates, wave superposition, interference, Young's double slit experiment, Michelson interferometer, reflectance and transmittance of thin films, interferometers, dispersion, elements of Fourier analysis, diffraction, single slit diffraction, double slit, Fraunhofer and Fresnel limits, diffraction grating, Fresnel diffraction, instruments, introduction to lasers.

PHYS 253 *Electricity and Magnetism I* (3 credits)

Prerequisite: PHYS 205 or equivalent; MAST 218 or equivalent, previously or concurrently. Electrostatics, Gauss' law, electric potential, curl and divergence of fields, capacitance, RC circuits, Laplace's equation, Legendre equation, method of images, multipole expansion, dielectrics, polarization, dipole moments, electric displacement.

PHYS 260 *Introductory Biophysics* (3 credits)

Prerequisite: BIOL 201; CHEM 205; MATH 203; PHYS 204, 205, 206; or equivalent. Cell physiology; macromolecules and molecular devices; transmission of genetic information; random walks, friction and diffusion; Reynolds number; entropy, temperature and free energy; entropic forces; chemical forces; self-assembly; membranes; active transport; nerve impulses. Overview of experimental techniques: X-ray crystallography; atomic force, electron and optical microscopies; patch-clamp techniques.

NOTE: Students who have received credit for this topic under a PHYS 298 number may not take this course for credit.

PHYS 270 *Introduction to Energy and Environment* (3 credits)

This course is designed for students who have little or no background in physics. Topics covered include relationship of physics to environment and energy. Concept and definition of work and energy. Interaction of people and inanimate objects with the environment. Heat and chemical energy. Electromagnetic and nuclear energy. Conservation of energy — how it affects everyday life. Sources of energy used on Earth. Solar energy. Production of wind power, water power, solar cells from sun's energy, biological uses, biopower. Lectures only.

NOTE: Students in programs leading to the BSc degree may not take this course for credit.

PHYS 273 *Energy and Environment* (3 credits)

This course studies energy — a critical resource for civilization — and the impact of energy consumption on societies and the environment. Topics include renewable and non-renewable energy sources, the physics of energy including the second law of thermodynamics and the notion of entropy, energy production and distribution, and social and global environmental issues such as pollution, sustainability, climate change, regulation and the future of energy. Lectures only.

NOTE: Students registered in Physics, Chemistry, Biochemistry, Electrical and Mechanical Engineering programs may not take this course for credit.

PHYS 284 *Introduction to Astronomy* (3 credits)

This course explores current knowledge of the cosmos from the celestial sphere towards the farthest reaches of the universe. The journey begins with a description of planet earth, its place in the solar system, and resulting seasonal changes, tidal movements, and earth's precession. Farther out, the solar system, the planets, star clusters, the Milky Way galaxy, and modern strange systems such as black holes, quasars, and supernovae are explored. The physical, theoretical and experimental grounds for understanding are described including Newton's laws, quantum and relativistic theories of light and matter, the science of visual and microwave telescopes, and techniques for discovering the existence of planets in other solar systems are also described. Lectures only.

PHYS 289 *Honours Research Experience I* (3 credits)

Prerequisite: Enrolment in the Honours in Physics program; permission of the Department. This course is a first supervised research project in Physics or Biophysics. Students work under the supervision of a member of the Faculty on either an experimental, computational, or theoretical research project. The learning outcomes include, but are not limited to, developing the ability to do an overview literature review, develop awareness of methods used to troubleshoot research work progress, develop familiarity with organization and communication of research results, understand the importance of collaborative and ethical research, make a targeted research contribution on a current research project. A formal, written report is required.

NOTE: This course is intended as an elective physics course for honours students doing research in the Department.

PHYS 292 *Experimental Mechanics II* (1 credit)

Prerequisite: PHYS 230. A laboratory course in mechanics. Experiments include the use of air tracks to study acceleration, collisions, dissipative forces, and periodic motion. Other experiments include viscosity and surface tension of liquids.

PHYS 294 *Experimental Electricity and Magnetism II* (1 credit)

Prerequisite: PHYS 230. A laboratory course in electricity and magnetism. Experiments include the transistor, amplification and frequency response, transient response and negative feedback, positive feedback and oscillation, periodic structures.

PHYS 295 *Experimental Electronics I* (2 credits)

A practical laboratory course in electronics. Experiments include resistors in series and parallel, voltmeter, Ohm's law, Kirchhoff's current and voltage laws, Ohmmeter, capacitor, inductor, transformer, rectifiers, voltage doubler, zener diode, power supplies.

NOTE: Students who have received credit for PHYS 290 may not take this course for credit.

PHYS 296 *Experimental Electronics II* (2 credits)

Prerequisite: PHYS 295. A practical laboratory course in electronics. Experiments include oscilloscope, biasing of bipolar transistors, transistor amplifiers, voltage and current regulators, field-effect transistor, oscillators, operational amplifier circuits, audio amplifier, I-F transformer, limiter, amplitude and frequency modulation.

NOTE: Students who have received credit for PHYS 290 may not take this course for credit.

PHYS 298 *Selected Topics in Physics* (3 credits)

PHYS 299 *Selected Topics in Physics* (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

PHYS 330 *Experimental Physics II* (3 credits)

Prerequisite: PHYS 230. This course builds on the competencies developed in Experimental Physics I, introducing various physics experiments that require a higher level of experimental skills and deeper insight into how an experiment should be conducted. The data analysis required by these experiments is more involved than that of Experimental Physics I. Students develop their scientific communication skills through the production of reports and an oral presentation.

PHYS 334 *Thermodynamics* (3 credits)

Prerequisite: PHYS 204 or equivalent; MAST 218 or equivalent, MAST 219 previously or concurrently. Equation of state, ideal and real gases, thermodynamic surfaces, first law of thermodynamics, isothermal and adiabatic processes, the energy equation, liquefaction of gases, Carnot engine, second law of thermodynamics, entropy, third law, thermodynamic potentials, Clausius-Clapeyron equation, kinetic theory, equipartition of energy, Van der Waals' equation, transport phenomena, probability and thermal distributions. Lectures only.

NOTE: See PHYS 393 for laboratory associated with this course.

PHYS 335 *Methods of Theoretical Physics II* (3 credits)

Prerequisite: PHYS 232 or equivalent; MAST 219 previously or concurrently. Function of a complex variable, Fourier series, applications to a vibrating string, heat conduction, Fourier transform, Laplace transform, application to differential equations, delta functions, eigenvalue problems. Lectures only.

PHYS 345 *Advanced Classical Mechanics* (3 credits)

Prerequisite: PHYS 232 or equivalent; PHYS 245 or equivalent; MAST 219. Survey of Newtonian mechanics; D'Alembert's principle and Lagrangian formulation; variational formulation and Hamilton's principle. Hamiltonian formulation, canonical transformations, Poisson brackets (connection to quantum mechanics); central force motion; planetary motion; scattering in a central field, dynamics of rigid bodies; Euler's equations; Hamilton-Jacobi theory, applications. Introduction to non-linear mechanics.

PHYS 354 *Electricity and Magnetism II* (3 credits)

Prerequisite: PHYS 253 or equivalent; MAST 219 or equivalent, previously or concurrently. Biot-Savart Law, Ampere's law, divergence and curl of B, magnetic vector potential, magnetization, ferromagnetism, electromagnetic induction, motional EMF, inductance, transformer, ac-circuits, Maxwell's equations, the wave equation, polarization, reflection and transmission of em waves, rectangular wave guide, half-wave antenna. Lectures only.

NOTE: Students who have received credit for PHYS 254 may not take this course for credit.

PHYS 355 *Electronics* (3 credits)

Prerequisite: PHYS 205. Basic circuit analysis, network theorems, maximum power transfer, diode characteristics and circuits, power supply designs, transistor characteristics, incremental equivalent circuits, input and output impedance calculations, emitter follower and Darlington amplifiers, power amplifiers, dc stabilization and negative feedback, operational amplifiers, phase detection, frequency multiplier and special circuits. Lectures only.

PHYS 367 *Modern Physics and Relativity* (3 credits)

Prerequisite: PHYS 205, 206 or equivalent. *Relativity*: Lorentz transformations (revision), space-time and four-tensors, Minkowski map of space-time, four-velocity and four-acceleration, four-momentum, equivalence of mass and energy, angular momentum, three- and four-force, formal structure of Maxwell's theory, transformation of E and B, electromagnetic energy tensor. *Atomic Physics*: Introduction to the theory of blackbody radiation, the photoelectric effect, the Compton effect, De Broglie's postulate, Bohr's postulates, Bohr's and Sommerfeld's model, Schrödinger's quantum mechanics, Schrödinger's equation, Bohr's interpretation of the wavefunctions, expectation values, time-independence, eigenfunctions and eigenvalues, energy quantization; solutions of the time-independent Schrödinger's equation free particle, and simple one-dimensional potentials.

PHYS 370 *Nonlinear Dynamics/Chaos/Fractals* (3 credits)

Prerequisite: PHYS 232 or equivalent. One-dimensional flows and maps, bifurcations, two-dimensional flows and maps, phase plane and limit cycles. Lorenz equations, strange attractors, chaos and nonlinearity, deterministic chaos, period doubling, experimental manifestations. Fractals, fractal dimension, examples of chaos and of fractals. Applications in physics, biology, chemistry, and engineering.

NOTE: Students who have received credit for this topic under a PHYS 498 number may not take this course for credit.

PHYS 377 *Quantum Mechanics I* (3 credits)

Prerequisite: PHYS 367. Schrödinger equation, probabilistic interpretation, normalization, expectation values, the uncertainty principle, stationary states, the free particle, infinite square well, the finite square well, the harmonic oscillator, the delta potential, the scattering matrix, vector spaces, postulates of quantum mechanics, operators and eigenvectors, compatible observables, the uncertainty relations, time-evolution of states, Ehrenfest's equations, the variational principle, nondegenerate time-independent perturbation theory, degenerate perturbation theory, spherical coordinates and the hydrogen atom, angular momentum, spin, addition of angular momenta.

PHYS 385 *Astrophysics* (3 credits)

Prerequisite: PHYS 284. The stars, stellar atmospheres, motion, interiors, and populations. Variable stars. Nebulae. Radio, X-ray, and infrared sources. The galaxy — population and dynamics. The extragalactic universe. Lectures only.

PHYS 389 *Honours Research Experience II* (3 credits)

Prerequisite: PHYS 289. Enrolment in the Honours in Physics program; permission of the Department. This course is a second supervised research project in Physics or Biophysics. Students work under the supervision of a member of the Faculty on either an experimental, computational, or theoretical research project. The learning outcomes include, but are not limited to, developing the ability to conduct a detailed literature review, develop productive methods to troubleshoot research work progress, learn to organize and communicate research results at an intermediate level, develop the ability to work collaboratively and ethically, and make a targeted, but substantive, research contribution on a current research project. A formal, written report is required.

NOTE: This course is intended as an elective physics course for honours students doing research in the Department.

PHYS 390 *Experimental Digital Electronics* (3 credits)

Prerequisite: PHYS 296 or equivalent. Breadboarding digital circuits; gating a signal; truth tables; decade counter; decoders, demultiplexers, multiplexers and sequencers; light-emitting diodes and LED displays; tristate and open collector outputs; flip-flops, monostable multivibrators; semiconductor memories; registers, binary counters, arithmetic logic units. Laboratory only.

NOTE: Students who have received credit for PHYS 396 may not take this course for credit.

PHYS 392 *Experimental Medical Electronics* (3 credits)

Prerequisite: PHYS 296 or 330, or equivalent. A laboratory course in the maintenance and use of medical instruments, including ECG monitor, electrocardiograph, cardio-tachometer, blood-pressure recorder, respiration-rate recorder, and clinical thermometer. The component parts of the instruments are studied first, and then the instruments are constructed and tested. Laboratory only.

PHYS 393 *Experimental Thermodynamics* (1 credit)

Prerequisite: PHYS 334 previously or concurrently. A laboratory course in thermodynamics. Experiments include Clement and Desormes' experiment, vaporization, specific heats, liquid nitrogen boiling. Laboratory only, 10 experiments.

NOTE: Students who have received credit for PHYS 494 may not take this course for credit.

PHYS 398 *Selected Topics in Physics* (3 credits)**PHYS 399 *Selected Topics in Physics*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

PHYS 435 *Statistical Physics* (3 credits)

Prerequisite: PHYS 334, 367. Statistical concepts, probability, Gaussian probability distribution, statistical ensemble, macrostates and microstates, thermodynamic probability, statistical thermodynamics, reversible and irreversible processes, entropy, thermodynamic laws and statistical relations, partition functions, Maxwell's distributions, phase transformation, Maxwell-Boltzmann, Fermi-Dirac, and Bose-Einstein statistics, quantum statistics in classical limit, black-body radiation, conduction of electrons in metal, interacting particle system, lattice vibrations, virial coefficients, Weiss molecular field approximation, Kinetic theory of gases, Boltzman equation. Lectures only.

PHYS 436 *Methods of Theoretical Physics III* (3 credits)

Prerequisite: PHYS 335 or equivalent. Partial differential equations, eigenfunction expansion and finite transforms, Laplace, Poisson, wave and diffusion equations, applications, special functions, boundary value problems, Sturm-Liouville theory, Bessel functions, Legendre and Hermite polynomials, spherical harmonics, Green's function and applications, perturbation theory, variational theory. Lectures only.

PHYS 440 *Computational Methods in Physics with Python* (3 credits)

Prerequisite: PHYS 236, 335, 377. This course presents advanced computational physics techniques using Python. Topics may include Bayesian inference, information theory, regression, Monte-Carlo methods, neural networks, machine learning, and molecular dynamics with a focus on computational solution of advanced problems in biophysics, electrodynamics, and quantum mechanics.

PHYS 443 *Quantitative Human Systems Physiology* (3 credits)

Prerequisite: Open to all in-program Science and Engineering students with a minimum of 45 university credits (not including Cegep-level science prerequisites), or permission of the instructor. This course addresses important concepts of quantitative systems physiology and the physical bases of physiological function in different organ systems. Students become familiar with the structure and functional principles of the main physiological systems, and how to quantify them. These include the nervous, cardiovascular, respiratory and muscular systems. Important biophysical principles and quantitative physiological methods are presented. These include biophysics of muscle contractions, fluid dynamics in the cardiovascular system, respiration gas exchange and neuronal communication, and how the biophysics of neuronal communications can be used to image brain activity.

PHYS 445 *Principles of Medical Imaging* (3 credits)

Prerequisite: Open to all in-program Science and Engineering students with a minimum of 45 university credits (not including Cegep-level science prerequisites), or permission of the instructor. This course introduces the physical principles associated with important medical imaging techniques used in medicine and in neuroscience research. The objective is to cover the whole imaging process in detail starting from the body entities to be imaged (e.g. structure, function, blood flow, neuronal activity), extending to the physical principles of data acquisition and finally the methods used for image data reconstruction. Imaging modalities presented may include X-Ray and Computer Tomography, Magnetic Resonance Imaging, nuclear medicine, ultrasound, electrophysiology and optical imaging techniques.

PHYS 458 *Advanced Electrodynamics* (3 credits)

Prerequisite: PHYS 354, 436. Electrostatic boundary-value problem and Green's function, Maxwell's equation, energy-momentum tensor, guided waves, dielectric wave guides, fibre optics, radiation static field, multipole radiation, velocity and acceleration field, Larmor's formula, relativistic generalization, radiating systems, linear antenna, aperture in wave guide, Thomson scattering, bremsstrahlung, Abraham-Lorentz equation, Breit-Wigner formula, Green's function for Helmholtz's equation, Noether's theorem. Lectures only.

PHYS 459 *Solid State Physics* (3 credits)

Prerequisite: PHYS 377 previously or concurrently. Drude and Sommerfeld theory of metals, crystal lattices, reciprocal lattice, electron levels in periodic potentials, tight-binding method, semiclassical model of electron dynamics and of conduction in metals, relaxation-time approximation, Boltzmann equation, homogeneous semiconductors, lattice vibrations, Fermi surface, cohesive energy.

PHYS 460 *Chemical Aspects of Biophysics* (3 credits)

Prerequisite: PHYS 253; PHYS 334 previously or concurrently. Stabilizing protein structures; bonding and nonbonding interactions; energy profiles; Ramachandran plot; stabilization through protonation-deprotonation. Interaction of macromolecules with solvents. Thermodynamics of protein folding. Ligand binding, Marcus-theory of biological electron transfer. Examples of modern biophysical techniques: electronic spectroscopies (absorption, fluorescence), X-ray absorption spectroscopy, NMR and EPR spectroscopy, IR and Raman spectroscopy, circular dichroism, differential scanning calorimetry.

NOTE: Students enrolled in a BSc Honours or Specialization in Biochemistry may not take this course for credit.

PHYS 461 *Membrane Biophysics* (3 credits)

Prerequisite: BIOL 266; PHYS 460. Fluid dynamics; composition of natural membranes; selection criteria for artificial membranes; phases and phase transitions of lipids; lipid-protein interactions; transport mechanisms across membranes; facilitated diffusion, Michaelis-Menten equation, ion channels, active transport against a concentration gradient, ATPase; origin of membrane potentials; electrogenic ion pumps; experimental methods to measure membrane potentials (patch clamp, optical, radioactive); resting and action potentials.

PHYS 462 *Bioenergetics* (3 credits)

Prerequisite: PHYS 460, 461. Chemiosmotic energy transduction, ion transport across energy conserving membranes, quantitative bioenergetics: measurement of driving forces. Chemiosmotic proton circuit, respiratory chains, photosynthesis, photosynthetic generators of protonmotive force, coupling between biological electron and proton transfer reactions, ATP synthase, metabolite and ion transport, mitochondria in the cell.

PHYS 463 *Optical Spectroscopy with Biophysics Applications* (3 credits)

Prerequisite: PHYS 377. Beer-Lambert Law, absorption; fluorescence; pump-probe; photon echo, IR and Raman spectroscopies; linear and circular dichroism; single molecule spectroscopy; spectral hole burning and fluorescence line narrowing. Relevant concepts of quantum mechanics (time-dependent and time-independent Schrödinger equation, spatial wavefunctions, transitions between states and time-dependent perturbation theory, lifetimes and uncertainty principle). Atomic and molecular orbitals. Some concepts related to symmetry and group theory. Resonance energy transfer. Optical properties of molecular aggregates.

PHYS 468 *Condensed Matter and Nanophysics* (3 credits)

Prerequisite: PHYS 459; PHYS 478 previously or concurrently. Review of phonon modes and electron band structure. Quantum condensed-matter topics: Hartree-Fock, mesoscopic quantum transport theory (quantum dots, 1D systems, 2D systems), superconductivity, the quantum Hall effects, and weak localization.

PHYS 470 *Nonlinear Waves* (3 credits)

Prerequisite: PHYS 335. Linear stability analysis and limitations, modulated waves and nonlinear dispersion relations. Korteweg-de Vries, sine-Gordon, and nonlinear Schrödinger equations. Hydro-dynamic, transmission-line, mechanical, lattice, and optical solitons. Applications in optical fibres, Josephson junction arrays. Inverse scattering method, conservation laws.

PHYS 478 *Quantum Mechanics II* (3 credits)

Prerequisite: PHYS 377. Particle states, classification of symmetry, parity, numerical solution of Schrödinger's equation, WKB approximation, variational method, alpha decay probability, time-dependent perturbation theory, systems of particles in one dimension, interacting particles, identical particles, Pauli exclusion Principle, Motion in three dimensions, hydrogen atom, angular momentum and spin, Pauli spin matrices, Dirac's relativistic wave equation.

PHYS 480 *Directed Readings in Theoretical Physics* (3 credits)

Prerequisite: Permission of the Department. A course for advanced students in which a special topic, selected in consultation with a faculty member, is studied in depth.

PHYS 488 *Lasers and Fibre-optics* (3 credits)

Prerequisite: PHYS 252, 354. Semiconductor physics, semiconductor sources, detectors, waveguides and fibres, optical communications, assorted topics in electro-optics.

NOTE: Students who have received credit for this topic under a PHYS 498 number may not take this course for credit.

PHYS 491 *Experimental Microprocessor Interfacing* (3 credits)

Prerequisite: PHYS 390. Address decoding, multiplexing, and demultiplexing with TTL integrated circuits. Address decoding circuits, drivers, and receivers. Parallel, serial and non-TTL I/O. Breadboarding, wire-wrapping, and soldering techniques. The use of oscilloscopes, logic probes, and computers for circuit trouble-shooting. Drawing schematic diagrams. Timing diagrams. Data sheets. Laboratory only.

PHYS 494 *Methods of Experimental Physics* (3 credits)

Prerequisite: PHYS 330, or permission of the Department. A supervised research project which may include experiments in nuclear physics, laser and fibre-optics, solid state physics, ultrasonics, or thermal physics. A technical report is required.

PHYS 495 *Experimental Nuclear Physics* (1 credit)

Prerequisite: PHYS 330. A laboratory course in nuclear physics. Experiments include gamma- and beta-ray spectroscopy, nuclear magnetic resonance, half-life determination, nuclear activities. Laboratory only, 10 experiments.

PHYS 496 *Honours Research Project* (6 credits)

Prerequisite: PHYS 330; and enrolment in Honours in Physics; and 45 credits completed in Physics; or permission of the Department. A research project for honours students that is carried out on a special topic in physics, biophysics, or applied physics under the supervision of a faculty member.

PHYS 497 *Specialization Research Project* (3 credits)

Prerequisite: PHYS 330; and enrolment in the Specialization in Physics; and 45 credits completed in Physics; or permission of the Department. This is an independent studies course for advanced specialization students in which a special topic in physics, biophysics, or applied physics is studied under the supervision of a faculty member. The student is required to write a report and give a brief presentation.

PHYS 498 *Advanced Topics in Physics* (3 credits)

PHYS 499 *Advanced Topics in Physics* (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

Faculty

Chair

ELIZABETH A. BLOODGOOD, PhD *Princeton University*; Associate Professor

Associate Chair

GRAHAM DODDS, PhD *University of Pennsylvania*; Professor

Distinguished Professors Emeriti

HENRY HABIB, PhD *McGill University*

HORST HUTTER, PhD *Stanford University*

JAMES MOORE, MA *University of Toronto*

Professors

ANTOINE BILODEAU, PhD *University of Toronto*

HAROLD R. CHORNEY, PhD *University of Toronto*

BROOKE JEFFREY, PhD *Carleton University*

JAMES KELLY, PhD *McGill University*

GUY LACHAPELLE, PhD *Northwestern University*

PATRIK MARIER, PhD *University of Pittsburgh*

CSABA NIKOLENYI, PhD *University of British Columbia*

STEPHANIE PATERSON, PhD *Carleton University*

DANIEL SALÉE, PhD *Université de Montréal*

FRANCESCA SCALA, PhD *Carleton University*

Associate Professors

CEREN BELGE, PhD *University of Washington*

ERIC BUZZETTI, PhD *Boston College*

TINA HILGERS, PhD *York University*

AXEL HUELSEMEYER, PhD *University of Calgary*

MEBS KANJI, PhD *University of Calgary*

EDWARD KING, PhD *University of California, Berkeley*

MICHAEL LIPSON, PhD *University of Wisconsin-Madison*

KIMBERLEY MANNING, PhD *University of Washington*

JEAN-FRANÇOIS MAYER, PhD *Pennsylvania State University*

MIREILLE PAQUET, PhD *Université de Montréal*

AMY POTEETE, PhD *Duke University*

LEANDER SCHNEIDER, PhD *Columbia University*

JULIAN SCHOFIELD, PhD *Columbia University*

TRAVIS SMITH, PhD *Harvard University*

MARLENE SOKOLON, PhD *Northern Illinois University*

Assistant Professors

NICOLE DE SILVA, PhD *University of Oxford*

SARAH GHABRIAL, PhD *McGill University*

MEGHAN JOY, PhD *Ryerson University*

SAM ROWAN, DPhil *University of Oxford*

ALEXANDRA O. ZEITZ, DPhil *University of Oxford*

Senior Lecturer

RICHARD BISAILLON, PhD *Concordia University*

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus

Hall Building, Room: H 1225-22

514-848-2424, ext. 2105

Department Objectives

The Department of Political Science offers a wide range of courses and programs to acquaint students with the living complexity of contemporary government and politics. The curriculum provides the theoretical foundations, analytical skills, and research methods for understanding the construction of government policy as well as the underlying nature and purpose of political processes and institutions. The aim is to prepare well-rounded, concerned citizens for careers in the public service and the private sector, or for graduate or law school.

Programs

The Department of Political Science offers the following programs of study: an honours, a major, and a minor.

Students seeking admission to the honours program may apply either for direct entry on the University application form or, once in the program, to the departmental honours advisor normally following the completion of 30 credits.

Students must apply to the departmental honours advisor for formal admission to either option of the honours program. Applications are due by May 15 for September admission and by November 15 for January admission. The number of places available in the Political Science Honours program is limited, and admission to the program is highly competitive. Students must have a cumulative GPA of at least 3.5 to be eligible to apply. If admitted, they must maintain an assessment GPA of at least 3.5 to graduate with honours. In order to maintain honours status, students must obtain approval for their programs from the honours advisor each year, prior to registration.

The program of courses leading to a Minor in Political Science consists of 24 credits in the Department. The minor is designed to provide an opportunity for students to make a combination with a specialization, a major, or honours in another discipline. A student's minor will be arranged in consultation with the Department of Political Science so that it relates to courses in the major area of study.

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

Option A

- 60 BA Honours in Political Science**
12 POLI 203³, 204³, 205³, 206³
6 Chosen from POLI 306³, 345³, 364³, 371³, 373³, 384³
6 Chosen from POLI 390³, 392³, 393³
33 Chosen from at least three of the five groups in Political Science at the 300 or 400 level with a minimum of 12 credits at the 400 level
3 POLI 496³ (*Honours Seminar*)

Option B

- 60 BA Honours (Thesis) in Political Science**
12 POLI 203³, 204³, 205³, 206³
6 Chosen from POLI 306³, 345³, 364³, 371³, 373³, 384³
6 Chosen from POLI 390³, 392³, 393³
3 POLI 396³ (*Honours Tutorial*)
24 Chosen from at least three of the five groups in Political Science at the 300 or 400 level with a minimum of nine credits at the 400 level
6 POLI 495⁶ (*Honours Thesis*)
3 POLI 496³ (*Honours Seminar*)

42 BA Major in Political Science

- 12 POLI 203³, 204³, 205³, 206³
30 Chosen from at least three of the five groups in Political Science at the 300 or 400 level with at least six credits at the 400 level

24 Minor in Political Science

- 12 POLI 203³, 204³, 205³, 206³
12 Chosen from courses in Political Science. A minimum of nine credits must be taken at the 300 or 400 level.

24 Minor in Human Rights Studies

- 6 PHIL 241³; POLI 214³
18 Chosen from ENGL 369³, 380³, 382³, 383³, 387³; FPST 321³; GEOG 407³; HIST 315³, 359³, 477³; HIST 360³ or SOCI 367³; JOUR 442³; LOYC 240³ or POLI 208³; PHIL 232³, 342³, 343³, 345³; POLI 301³, 324³, 328³, 388³, 407³; POLI 389³ or THEO 343³; RELI 310³, 312³; SOCI 380³ or ANTH 380³; WSDB 381³, 385³, 386³, 390³

NOTE: For details on the course descriptions in the program listed above, please refer to the individual departmental course listings.

Core Program

- POLI 203 Introduction to Comparative Politics (3 credits)
POLI 204 Introduction to Canadian Politics (3 credits)
POLI 205 Introduction to International Relations (3 credits)
POLI 206 Introduction to Western Political Theory (3 credits)
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Group 1: International Politics

- POLI 301 Social Movements and Protest Politics (3 credits)
POLI 302 Causes of War (3 credits)
POLI 303 Chinese Security Politics (3 credits)
POLI 304 Theories of Foreign Policy Making (3 credits)
POLI 305 International Political Economy (3 credits)
POLI 311 International Public Law (3 credits)
POLI 312 Special Topics in International Politics (3 credits)
POLI 315 International Organizations (3 credits)
POLI 318 Introduction to Strategic Studies (3 credits)
POLI 329 American Foreign Policy (3 credits)
POLI 332 Theories of International Relations (3 credits)
POLI 388 Human Rights and International Justice (3 credits)
POLI 391 Middle East and Global Conflict (3 credits)
POLI 394 Globalization and Sustainable Development (3 credits)
POLI 400 Advanced Seminar in International Relations Theory (3 credits)
POLI 402 Advanced International Political Economy (3 credits)
POLI 403 Global Ecopolitical Analysis (3 credits)
POLI 404 International Institutions (3 credits)
POLI 419 Strategic Studies (3 credits)
POLI 420 Politics of Conservation (3 credits)
POLI 421 Transnational Politics (3 credits)
POLI 422 Canadian Foreign Policy (3 credits)
POLI 423 Peace Studies and Global Governance (3 credits)
POLI 451 Directed Studies in International Politics (3 credits)
POLI 486 Advanced Seminar in International Relations (3 credits)
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Group 2: Comparative Politics

- POLI 301 Social Movements and Protest Politics (3 credits)
POLI 307 The U.S. Presidency (3 credits)
POLI 308 Politics of Emerging Economies (3 credits)
POLI 310 Politics of the U.S. (3 credits)
POLI 313 Special Topics in Comparative Politics (3 credits)
POLI 319 European Politics and Government (3 credits)
POLI 320 Development of Western Legal Systems (3 credits)
POLI 322 Israeli Political System (3 credits)
POLI 323 Politics of Eastern Europe (3 credits)
POLI 327 Comparative Democratization (3 credits)
POLI 331 Comparative Party Systems (3 credits)
POLI 335 Politics of the People's Republic of China (3 credits)
POLI 352 Comparative Urban Politics and Government (3 credits)
POLI 366 Politics of Africa (3 credits)
POLI 376 Politics of Northern Ireland (3 credits)
POLI 379 Politics of Latin America (3 credits)
POLI 395 Politics of the Middle East (3 credits)
POLI 405 Comparative Electoral Systems (3 credits)
POLI 406 Comparative Federalism and Political Integration (3 credits)
POLI 410 Environmental Policy in the Developing World (3 credits)
POLI 412 Comparative Social Policy (3 credits)
POLI 424 Corruption (3 credits)
POLI 429 Political Socialization in Canadian and Comparative Perspective (3 credits)
POLI 431 State-Society Relations in China (3 credits)
POLI 434 Politics of Violence in Latin America (3 credits)
POLI 435 Advanced Seminar in U.S. Politics (3 credits)

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- POLI 436 State and Society in the Middle East (3 credits)
POLI 437 Special Issues in African Development (3 credits)
POLI 438 Decentralization and Development (3 credits)
POLI 452 Directed Studies in Comparative Politics (3 credits)
POLI 481 Advanced Seminar in European Politics (3 credits)
POLI 483 State and Society in Latin America (3 credits)
POLI 484 Post-Communist Democracies (3 credits)
POLI 485 Issues in Development and Democracy (3 credits)
POLI 487 Advanced Seminar in Comparative Politics (3 credits)
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Group 3: Canadian and Quebec Politics

- POLI 309 Women and Politics in Canada (3 credits)
POLI 314 Special Topics in Canadian and Quebec Politics (3 credits)
POLI 321 Canadian and Quebec Law (3 credits)
POLI 324 Parliament and the Charter (3 credits)
POLI 334 Political Participation in Canada (3 credits)
POLI 339 Quebec Politics and Society/La vie politique québécoise (3 credits)
POLI 340 Canadian Political Culture (3 credits)
POLI 341 Provincial and Territorial Politics (3 credits)
POLI 351 Canadian Federalism (3 credits)
POLI 356 Canadian Political Parties (3 credits)
POLI 363 Issues in Canadian Public Policy (3 credits)
POLI 365 Canadian Public Administration (3 credits)
POLI 367 Quebec Public Administration (3 credits)
POLI 407 Parliamentary Bills of Rights (3 credits)
POLI 408 Public Opinion and Public Policy (3 credits)
POLI 409 Canada: State-Society Relations (3 credits)
POLI 428 Constitutional Politics in Canada (3 credits)
POLI 429 Political Socialization in Canadian and Comparative Perspective (3 credits)
POLI 453 Directed Studies in Canadian and Quebec Politics (3 credits)
POLI 488 Advanced Seminar in Canadian and Quebec Politics (3 credits)
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Group 4: Public Policy and Administration

- POLI 316 Special Topics in Public Policy and Administration (3 credits)
POLI 320 Development of Western Legal Systems (3 credits)
POLI 328 Public Policy and the Politics of Equality (3 credits)
POLI 330 Principles of Public Administration (3 credits)
POLI 349 Political and Social Theory and the City (3 credits)
POLI 352 Comparative Urban Politics and Government (3 credits)
POLI 353 Principles of Public Policy (3 credits)
POLI 361 Advocacy Groups and Public Policy (3 credits)
POLI 363 Issues in Canadian Public Policy (3 credits)
POLI 365 Canadian Public Administration (3 credits)
POLI 367 Quebec Public Administration (3 credits)
POLI 410 Environmental Policy in the Developing World (3 credits)
POLI 411 Gender and Public Policy (3 credits)
POLI 412 Comparative Social Policy (3 credits)
POLI 438 Decentralization and Development (3 credits)
POLI 454 Directed Studies in Public Policy and Administration (3 credits)
POLI 463 Government and Business in Canada (3 credits)
POLI 489 Advanced Seminar in Public Policy and Administration (3 credits)
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Group 5: Political Theory

- POLI 306 Classical Political Thought (3 credits)
POLI 317 Special Topics in Political Theory (3 credits)
POLI 345 Contemporary Political Philosophy (3 credits)
POLI 349 Political and Social Theory and the City (3 credits)
POLI 364 Hellenistic, Roman, Medieval Political Philosophy (3 credits)
POLI 368 Media, Technology and Politics (3 credits)
POLI 371 Early Modern Political Philosophy (3 credits)
POLI 373 Late Modern Political Philosophy (3 credits)
POLI 384 Principles of Political Theory (3 credits)

- POLI 386 Contemporary Liberalism and Its Critics (3 credits)
POLI 389 Religion and Politics (3 credits)
POLI 401 American Political Thought (3 credits)
POLI 414 Authors of Political Imagination (3 credits)
POLI 415 Modern Political Theory and Religion (3 credits)
POLI 416 Ancient Political Texts (3 credits)
POLI 417 Governance (3 credits)
POLI 418 Machiavelli (3 credits)
POLI 425 Foundations of Liberalism (3 credits)
POLI 426 Nietzsche (3 credits)
POLI 427 Political Thought of the Enlightenment (3 credits)
POLI 433 Critics of Modernity (3 credits)
POLI 455 Directed Studies in Political Theory (3 credits)
POLI 490 Advanced Seminar in Political Theory (3 credits)
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Political Science Co-operative Program

Director

NICOLE DE SILVA, Assistant Professor

The Political Science co-operative program is offered to all full-time students enrolled in the major and honours programs in the Department who meet the academic requirements for co-op. Students interested in applying for the Political Science co-op should refer to §24 where a full description of the admission requirements is provided.

Academic content is identical to that of the regular programs, with some specific recommendations for courses to improve the students' job skills. While most of the positions are in the Montreal area, students must be prepared to work in other parts of Canada.

Students are supervised personally and must meet the requirements specified by the Faculty of Arts and Science and the Institute for Co-operative Education in order to continue their studies in the co-op format.

Liaison between the student, the employers, and the Institute for Co-operative Education is provided by the Political Science co-op committee, which includes the student's advisors.

Please refer to §24 for additional information.

Political Science C.Edge (Career Edge) Option

The Political Science C.Edge option is offered through the Institute for Co-operative Education. Like the co-operative program, C.Edge allows students to gain practical experience through work terms related to their field of study. It is limited to one or two work terms, normally in the summer. Students interested in applying for the C.Edge option should refer to §24 where a full description is provided.

Courses

N.B.: Explanation of course numbers and the core program:

1. Political Science Honours and Major students should normally complete the 12-credit core program in their first year of full-time equivalent studies. Mature Entry Program (MEP) and Extended Credit Program (ECP) students must consult an academic advisor regarding the completion of the 12-credit core.
2. Courses at the 200 and 300 level are open to all students in other departments and Faculties.
3. Courses at the 400 level are taught as seminars and are generally open to students enrolled in a Political Science program who have successfully completed 60 credits.

POLI 202 *Introduction to Political Science* (3 credits)

This course seeks to develop a broad basis from which to pursue further political inquiry. It offers an introductory examination of basic ideas regarding the state, power, authority, and systems of government. The course examines the diverse approaches to the specific study of political phenomena and provides a fundamental understanding of political concepts.

POLI 203 *Introduction to Comparative Politics* (3 credits)

This course introduces students to the main concepts of comparative political analysis. Major topics include different types of governmental systems and institutions, regime types, electoral systems and political parties, state-society relations, political economy, nationalism, democratization, globalization, and other types of political transformations. By examining several different countries, students gain an understanding of the great diversity of political life and the many ways in which politics affects citizens.

POLI 204 *Introduction to Canadian Politics* (3 credits)

This course is a basic introduction to the fundamental issues of Canadian public life and the federal political system. It presents an overview of the constitution, institutions, political parties, electoral system, interest groups, and public opinion that represent the essential components of Canada's political culture and government.

POLI 205 *Introduction to International Relations* (3 credits)

This course introduces the principal theories, concepts, and debates in the contemporary study of international relations. It provides an overview of issues in international security, international political economy and global governance.

POLI 206 *Introduction to Western Political Theory* (3 credits)

This course introduces students to the study of Western political theory through a variety of primary source readings. Assigned texts may be drawn from philosophy, history, literature and other forms of political writing.

POLI 207 *Introduction to Political Science Research* (3 credits)

This course demonstrates how research is conducted in political science. Students learn how to develop a research design. The course introduces them to various research methodologies and provides several approaches for reporting and presenting research.

NOTE: Students who have received credit for POLI 392 or 393 may not take this course for credit.

POLI 208 (*also listed as LOYC 240*)

Global Environmental Issues and Ecological Justice (3 credits)

This course introduces students to collective action problems faced by governments, international organizations, corporations, advocacy groups, and scientists. Topics may include climate change, biodiversity conservation, hazardous waste disposal, water and food security.

NOTE: Students who have received credit for LOYC 240 or POLI 394, or for this topic under a POLI 298 number, may not take this course for credit.

POLI 209 *Public Security and Terrorism* (3 credits)

This course provides an overview of modern terrorism and its evolution, focusing on terrorist movements, groups, and incidents in many parts of the world over time. Students gain an understanding of the theory behind terrorism, its roots, goals, and ideologies, as well as its relation to governments, the media, and the public.

NOTE: Students who have received credit for this topic under a POLI 298 number may not take this course for credit.

POLI 214 *Human Rights: An Overview* (3 credits)

This course introduces students to the historical origins of the concept of human rights; the international regime and the acceptance of several generations of rights such as civil and political rights, economic rights, group rights, and women's rights; the critiques of universalism and the problems of implementation of human rights.

NOTE: Students who have received credit for this topic under a POLI 298 number may not take this course for credit.

POLI 215 *Global Politics* (3 credits)

This course introduces students to several theoretical perspectives related to global politics, and then examines current events. The focus is on conflict resolution, the impact of globalization, the roles of international organizations, and information technology.

NOTE: Students who have received credit for this topic under a POLI 298 number may not take this course for credit.

POLI 216 *Introduction to the United Nations* (3 credits)

This course examines the operations and issues of the United Nations organization. It covers the operation of the Security Council and other components of the United Nations. It surveys micro-issues such as routine operations, the internal bureaucracy, the ethics of its procedures, and its historical background.

NOTE: Students who have received credit for this topic under a POLI 298 number may not take this course for credit.

POLI 217 *Comparing Democracies* (3 credits)

This course introduces students to the field of comparative politics by examining the institutional structures of established, advanced industrial democracies. Particular emphasis is placed on the study of constitutions; the legislative, executive, and judicial branches of government; and electoral and party systems.

NOTE: Students who have received credit for this topic under a POLI 298 number may not take this course for credit.

POLI 219 *Governance and Organized Crime* (3 credits)

This course describes and defines organized crime, providing an overview of its history, different theories and models explaining it and the legal processes related to it. The course examines the role played by government agencies, such as the police and the bureaucracy, and the international bodies that combat it. Issues addressed in this course may include drug trafficking, racketeering, human trafficking, extortion, and economic crimes. A number of actual organized crime groups are analyzed.

NOTE: Students who have received credit for this topic under a POLI 298 number may not take this course for credit.

POLI 285 (*also listed as ANTH 285/HIST 285/SOCI 285*)

Introduction to Law and Society (3 credits)

This interdisciplinary course examines the roles law plays in society in Canada and internationally, from the perspectives of history, political science, anthropology, sociology, and philosophy.

NOTE: Students who have received credit for ANTH 285, HIST 285, or SOCI 285, or for this topic under an ANTH 298, HIST 298, POLI 298, or SOCI 298 number, may not take this course for credit.

POLI 298 *Selected Topics in Political Science* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

POLI 300 Not-for-Profit Organizations and the Law (3 credits)

Prerequisite: POLI 204 or permission of the Department. This course introduces students to the legal regimes affecting not-for-profit organizations (NPO). The course covers the legal structures, rules and procedures that govern NPOs, the vast diversity of NPOs, and practical questions such as how to set up an NPO.

NOTE: Students who have received credit for this topic under a POLI 316 number may not take this course for credit.

POLI 301 Social Movements and Protest Politics (3 credits)

Prerequisite: POLI 203 or 205; or permission of the Department. This course examines the ideas, organization, and actions of such social movements as environmentalism, peace, human rights, labour, feminism, and antiglobalization. Theories of social movement mobilization, influence across national contexts, and the politics of protest are given particular attention.

POLI 302 Causes of War (3 credits)

Prerequisite: POLI 205 or permission of the Department. This course examines the causes of war and peace in the international system. It studies the impact on war and peace of such influences as cognitive psychology, identity, group decision-making, bureaucratic processes, regime types, conflict spirals, arms control, arms races, balance of power, hegemonic stability theory, trade interdependence, environment and non-renewable resources, and international institutions.

NOTE: Students who have received credit for this topic under a POLI 298 number may not take this course for credit.

POLI 303 Chinese Security Politics (3 credits)

Prerequisite: POLI 205 or permission of the Department. This course examines the rise of China as a major power, and in particular the implications this has for military aspects of China's relations. China's security policy is examined from a theoretical, historical, political, and economic perspective, and the implications of these are examined in the cases of its foreign relations with neighbours and other great powers.

NOTE: Students who have received credit for this topic under a POLI 313 number may not take this course for credit.

POLI 304 Theories of Foreign Policy Making (3 credits)

Prerequisite: POLI 205 or permission of the Department. This course explores the major international and domestic determinants of foreign policy. Principal topics include the influence on foreign policy of the international system, geography, leadership, regime-type, transnationalism, and non-governmental organizations. This course draws upon the experiences of a variety of Western democratic states.

NOTE: Students who have received credit for POLI 338 or for this topic under a POLI 398 number may not take this course for credit.

POLI 305 International Political Economy (3 credits)

Prerequisite: POLI 205 or permission of the Department. This course examines institutions, processes, and issues in economic relations between states. Topics covered include theories of international political economy (IPE), international trade, global finance, multinational corporations, economic development, globalization, and regional blocs.

POLI 306 Classical Political Thought (3 credits)

Prerequisite: POLI 206 or permission of the Department. This course focuses on the foundations of Western political thinking in ancient Greece. Through a careful examination of texts by Greek poets, historians and philosophers, concepts such as nature and convention, regime types, and justice and the good life are explored.

POLI 307 The U.S. Presidency (3 credits)

Prerequisite: POLI 203 or permission of the Department. This course provides a broad yet detailed introduction to the U.S. Presidency. Primary topics of study include the constitutional nature of the presidential office, how it has evolved over time, its place in American politics, its relationship with the rest of the federal government, its role in the policy-making process, and the relationship between individual presidents and the presidency as an institution.

NOTE: Students who have received credit for this topic under a POLI 313 or 487 number may not take this course for credit.

POLI 308 Politics of Emerging Economies (3 credits)

Prerequisite: POLI 203 or permission of the Department. This course examines the political and economic development of emerging countries. It addresses questions of autonomy/dependence on external powers, economic models, systems of government, and state-society relations, looking at historical and contemporary processes.

NOTE: Students who have received credit for this topic under a POLI 313 number may not take this course for credit.

POLI 309 Women and Politics in Canada (3 credits)

Prerequisite: POLI 204 or permission of the Department. This course examines the role of women in Canadian politics at the federal, provincial, and local level. Historical, theoretical, and legal perspectives are examined and include the politics of racism; sexuality; community organizing; suffrage; and representation within formal political structures. It focuses on the diversity and development of the women's movement in Canada.

POLI 310 Politics of the U.S. (3 credits)

Prerequisite: POLI 203 or permission of the Department. This course surveys the structures and dynamics that inform the contemporary American political process. In addition to studying the traditional governmental institutions, the course aims to provide a foundation for understanding and critically analyzing public opinion, the media and elections, federalism, political parties and interest groups, civil rights and civil liberties, and current issues in public policy.

POLI 311 *International Public Law* (3 credits)

Prerequisite: POLI 205 or permission of the Department. This course explores the meaning, effectiveness, and potential of interstate law. Among the topics covered are the source and development of international law; the role of the International Court of Justice; sovereignty, territory, and natural resources; human rights violations, the state and war crimes tribunals; and international environmental law.

POLI 312 *Special Topics in International Politics* (3 credits)

Prerequisite: POLI 205 or permission of the Department. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

POLI 313 *Special Topics in Comparative Politics* (3 credits)

Prerequisite: POLI 203 or permission of the Department. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

POLI 314 *Special Topics in Canadian and Quebec Politics* (3 credits)

Prerequisite: POLI 204 or permission of the Department. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

POLI 315 *International Organizations* (3 credits)

Prerequisite: POLI 205 or permission of the Department. This course offers an overview of international institutions and global governance. It examines major theoretical perspectives on international organizations, and addresses the role of the United Nations system, regional organizations, and non-governmental organizations in promoting international co-operation to address collective problems.

POLI 316 *Special Topics in Public Policy and Administration* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

POLI 317 *Special Topics in Political Theory* (3 credits)

Prerequisite: POLI 206 or permission of the Department. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

POLI 318 *Introduction to Strategic Studies* (3 credits)

Prerequisite: POLI 205 or permission of the Department. This course is an introductory examination of the theoretical aspects of strategic studies, including the principles of war, as they apply to combat on land, at sea, and in the air.

NOTE: Students who have received credit for this topic under a POLI 398 number may not take this course for credit.

POLI 319 *European Politics and Government* (3 credits)

Prerequisite: POLI 203 or permission of the Department. This course is a study of government and politics in selected European countries. It provides an analysis of political institutions, cultures, and processes.

POLI 320 *Development of Western Legal Systems* (3 credits)

Prerequisite: POLI 203 or permission of the Department. This course is an overview of the major legal systems of the Western world, with special emphasis on the political decisions which influenced their growth and direction. Students study the development of Roman law, Romano-Germanic law, and English common law.

POLI 321 *Canadian and Quebec Law* (3 credits)

Prerequisite: POLI 204 or permission of the Department. This course is an introduction to Canadian and Quebec law. Certain areas of criminal law, the Canadian Charter of Rights and Freedoms, and Quebec civil law are emphasized. An analysis is undertaken of criminal court structure and procedure, legal constitutional rights, and civil court structure and procedure.

NOTE: Students who have received credit for POLI 350 may not take this course for credit.

POLI 322 *Israeli Political System* (3 credits)

Prerequisite: POLI 203 or permission of the Department. This course introduces students to the study of the emergence and the operation of the Israeli political system and government. Topics may include the formation of the Israeli State; the legislative, the executive, political parties and the electoral process; ethnic divisions; gender and politics; and the issue of the Palestinian territories.

POLI 323 *Politics of Eastern Europe* (3 credits)

Prerequisite: POLI 203 or permission of the Department. This course studies the political process and institutions of the region, with a special focus on the recent transformation relating to economic problems, social structures, culture, and ethnic conflicts, as well as the role of governmental policies in domestic and foreign affairs.

POLI 324 *Parliament and the Charter* (3 credits)

Prerequisite: POLI 204 or permission of the Department. This course examines the judicial and parliamentary responses to the Canadian Charter of Rights and Freedoms. Particular attention is paid to the judicialization of politics and the emerging dialogue on rights between courts and legislatures in important areas of public policy.

NOTE: Students who have received credit for this topic under a POLI 398 number may not take this course for credit.

POLI 325 *Administrative Law* (3 credits)

Prerequisite: POLI 204 or permission of the Department. This course covers the purpose and nature of administrative law in the Canadian context. It examines how administrative law regulates the activities of government agencies, boards, commissions, and other departments or offices. It also covers the role of appeals processes and judicial review of administrative action.

NOTE: Students who have received credit for this topic under a POLI 314 number may not take this course for credit.

POLI 327 *Comparative Democratization* (3 credits)

Prerequisite: POLI 203 or permission of the Department. This course discusses the nature of democracy and the challenges of democratization, drawing on experiences with democratization in Southern Europe, Latin America, Eastern Europe, and Africa. Students assess prospects for democratization and consider how other countries might encourage greater democracy in countries currently experiencing regime change.

NOTE: Students who have received credit for this topic under a POLI 398 number may not take this course for credit.

POLI 328 *Public Policy and the Politics of Equality* (3 credits)

This course reviews theoretical debates about the role of the state and the individual, collective and individual rights, integration, and the role of cultural diversity and identity. It examines selected policy demands of women, the poor, refugees, and other constituencies.

POLI 329 *American Foreign Policy* (3 credits)

Prerequisite: POLI 205 or permission of the Department. This course covers the sources and significance of American foreign policy, including the U.S. foreign policy-making process, the political and historical context of U.S. foreign policy decision making, and the nature and dimensions of contemporary American power. Major theoretical and policy debates are considered.

POLI 330 *Principles of Public Administration* (3 credits)

This course examines the theory and practice of public administration in Canada. The nature of accountability in public sector environments is reviewed in order to study how policy is developed, implemented, and evaluated by bureaucracies, central agencies, and the legislative branches of government.

POLI 331 *Comparative Party Systems* (3 credits)

Prerequisite: POLI 203 or permission of the Department. This course introduces students to the academic study of political parties and party systems. It examines the determinants of party behaviour from a number of theoretical perspectives, including historical, sociological and institutional. The topics covered include, but are not limited to, the number of parties, electoral systems, party finance, leadership selection, and government formation and stability. Specific case studies are selected both from established and new democracies.

NOTE: Students who have received credit for this topic under a POLI 398 number may not take this course for credit.

POLI 332 *Theories of International Relations* (3 credits)

Prerequisite: POLI 205 or permission of the Department. This course provides an introduction to international relations theory, covering the major debates between realism, liberalism, constructivism, and critical theory, as well as competing epistemological and methodological orientations.

POLI 334 *Political Participation in Canada* (3 credits)

Prerequisite: POLI 204 or permission of the Department. This course examines the various approaches to understanding the participation of the public in politics, primarily electoral but also non-electoral activities, in Canada and from a comparative perspective.

NOTE: Students who have received credit for this topic under a POLI 398 number may not take this course for credit.

POLI 335 *Politics of the People's Republic of China* (3 credits)

Prerequisite: POLI 203 or permission of the Department. This course focuses on the political development of the People's Republic of China. Topics include political mobilization, economic development, nationalism, and the policy process.

POLI 339 *(also listed as SCPA 339)****Quebec Politics and Society/La vie politique québécoise*** (3 credits)

Prerequisite: POLI 204 or permission of the Department. This course is a study of the changing party structure and political issues in Quebec and their relationship to constitutional, cultural, and economic factors.

On étudiera dans ce cours l'évolution structurelle des partis et des questions politiques au Québec en fonction de facteurs d'ordre constitutionnel, culturel et économique.

NOTE: Students who have received credit for POLI 211, SCPA 211, or SCPA 339 may not take this course for credit.

NOTE: The course will be offered in both English and French on a rotational basis. Please consult the Undergraduate Class Schedule for details.

POLI 340 *Canadian Political Culture* (3 credits)

Prerequisite: POLI 204 or permission of the Department. This course approaches Canadian politics from a societal perspective. The objective is to develop a better understanding of Canada's political culture through a cross-time and cross-national analysis.

POLI 341 *Provincial and Territorial Politics* (3 credits)

Prerequisite: POLI 204 or permission of the Department. This course analyzes regional political cultures in Canada including the development of provincial political parties and public administrations, the rise of third parties, provincial and territorial constitutional positions, electoral behaviour, and institutional reform in the northern Territories.

NOTE: Students who have received credit for POLI 438 may not take this course for credit.

POLI 345 *Contemporary Political Philosophy* (3 credits)

Prerequisite: POLI 206 or permission of the Department. This course examines the character of contemporary political theory when viewed from both a modernist and an anti-modernist understanding of political life. The course also involves an examination into what it means to be modern and whether the critique of modernity is itself a very modern activity.

NOTE: Students who have received credit for this topic under a POLI 398 number may not take this course for credit.

POLI 349 *Political and Social Theory and the City* (3 credits)

Prerequisite: POLI 206 or permission of the Department. This course examines the theoretical and ideological aspects of city government in historical and normative perspective.

POLI 351 *Canadian Federalism* (3 credits)

Prerequisite: POLI 204 or permission of the Department. This course is a critical and analytical study of the theory of federalism, its principles, and techniques, and the response of Canadian federal systems to the demands of cultural dualism and regional pressures.

POLI 352 *Comparative Urban Politics and Government* (3 credits)

Prerequisite: POLI 203 or 204; or permission of the Department. This course deals with politics and government in selected Canadian cities, with comparative reference to cities elsewhere in the world.

POLI 353 *Principles of Public Policy* (3 credits)

This course examines the concepts, theories and approaches to the study of public policy. It also explores the major actors, processes and institutions involved in the development of public policy from a Canadian and/or comparative perspective. Topics include the role of the bureaucracy, globalization and internationalization, and state-society relations in policy-making.

POLI 356 *Canadian Political Parties* (3 credits)

Prerequisite: POLI 204 or permission of the Department. This course provides a comprehensive examination of the origins and development of political parties in Canada at both the federal and provincial levels. Theories about party development, including one party dominance, brokerage politics and third party development, are examined in order to determine the efficacy of political parties.

POLI 359 *Directed Studies in Political Science* (3 credits)

Prerequisite: POLI 203, 204, 205 or 206; permission of the undergraduate program director. This special reading course is designed in conjunction with a faculty member to explore topics and themes in a specific research area of interest to the student and faculty member.

NOTE: This course may not be taken more than once for credit.

POLI 361 *Advocacy Groups and Public Policy* (3 credits)

Students examine the broad social, economic, political, and cultural forces shaping governmental decisions and policies. Particular attention is paid to the conflict between private and public concerns.

POLI 363 *Issues in Canadian Public Policy* (3 credits)

Prerequisite: POLI 204 or permission of the Department. The course examines alternative public policies in selected areas at the federal, provincial, and municipal levels in Canada. Policies analyzed vary from year to year and include such areas as social welfare, culture, education, language, environmental protection, energy conservation, urban renewal, and economic policy.

POLI 364 *Hellenistic, Roman, Medieval Political Philosophy* (3 credits)

Prerequisite: POLI 206 or permission of the Department. This course examines the political teachings of the Hellenistic schools such as the Academics, the Stoics, the Epicureans and the Skeptics, the political writings from the Roman Republic and Empire, and the political problematics posed by early Christianity.

POLI 365 *Canadian Public Administration* (3 credits)

Prerequisite: POLI 204 or permission of the Department. This course examines the organization and composition of the federal bureaucracy, the role of the bureaucracy in the making and implementation of public policy, patterns of recruitment, and the mechanisms of accountability and control.

POLI 366 *Politics of Africa* (3 credits)

Prerequisite: POLI 203 or permission of the Department. This course studies political institutions and processes in Africa from a comparative perspective. Countries and topics selected may vary from year to year.

NOTE: Students should consult the Department for current topic.

POLI 367 Quebec Public Administration (3 credits)

Prerequisite: POLI 204 or permission of the Department. This course examines the organization and composition of Quebec bureaucracy, the role of civil servants and the making and implementation of public policy, patterns of recruitment, and the mechanisms of accountability and control.

POLI 368 Media, Technology and Politics (3 credits)

Prerequisite: POLI 206 or permission of the Department. This course examines the impact upon politics of changes in technology and the media. Students discuss a diverse range of contemporary thinkers and their understanding of the digital future. Particular attention is paid to the age of electronic politics and its effect upon the actual practice of political power.

POLI 371 Early Modern Political Philosophy (3 credits)

Prerequisite: POLI 206 or permission of the Department. Students are introduced to the origins of modern political thought from the Renaissance and the Reformation through to the mid-18th century.

POLI 373 Late Modern Political Philosophy (3 credits)

Prerequisite: POLI 206 or permission of the Department. This course examines the progression and criticism of modern political thought from the mid-18th century through to the early-20th century.

POLI 376 Politics of Northern Ireland (3 credits)

This course focuses on the political evolution of Northern Ireland over three distinct periods: the Stormont Parliament (1921-1972); direct rule by Westminster (1972-1998); and devolved government after the 1998 Good Friday Agreement. Topics may include constitutional politics and partition, religion and politics, political parties, sectarianism, the "Troubles," the Good Friday Agreement, and the post-1998 power-sharing institutions.

NOTE: Students who have received credit for this topic under an IRST 398 number may not take this course for credit.

POLI 379 Politics of Latin America (3 credits)

Prerequisite: POLI 203 or permission of the Department. This course explores Latin American politics, economics, society, and culture from a multidimensional perspective. It emphasizes the common elements and diverging factors that characterize the contemporary evolution of Latin American countries.

NOTE: Students should consult the Department for current topic.

POLI 384 Principles of Political Theory (3 credits)

Prerequisite: POLI 206 or permission of the Department. This course is an intensive study of a basic work by a major thinker such as Plato, Aristotle, Machiavelli, Hobbes or Hegel. It examines a major text such as Plato's *Laws* or Hegel's *Phenomenology* as well as commentaries on it, while attempting to explore systematically the issues and problems raised by the text and the interpretative traditions that follow from it.

POLI 386 Contemporary Liberalism and Its Critics (3 credits)

Prerequisite: POLI 206 or permission of the Department. This course examines recent developments in the theory and practice of liberalism, as well as criticisms of liberal principles and the liberal way of life from a range of contemporary perspectives.

POLI 388 Human Rights and International Justice (3 credits)

Prerequisite: POLI 205 or permission of the Department. This course surveys normative questions comprising human rights discourse, with an emphasis on international efforts to promote human rights standards. Topics include the role of the United Nations, the North-South debate, environmental security, the obligation of individuals and states, women's rights and the work of non-governmental organizations. Special consideration is given to the controversy between the universal and particular applications of human rights.

POLI 389 (also listed as THEO 343)

Religion and Politics (3 credits)

Prerequisite: POLI 206 or permission of the Department. This course studies the relationship between religion and politics with reference to historical, philosophical, theological and contemporary political thought.

NOTE: Students who have received credit for THEO 343 or for this topic under a POLI 398 number may not take this course for credit.

POLI 390 Critical Perspectives on Modern Political Science (3 credits)

This course raises theoretical and practical questions regarding the limits, purposes, and presuppositions of modern political science through an examination of criticisms of and alternatives to prevailing modes of inquiry.

NOTE: Students who have received credit for POLI 372 may not take this course for credit.

POLI 391 Middle East and Global Conflict (3 credits)

Prerequisite: POLI 205 or permission of the Department. This course is a study of the Middle East in transition, conflict and ideology in a global context of changing regional alliances. Topics include regional conflicts such as the Arab-Israeli conflict, the Iraq-Iran war, the Gulf crisis, foreign policy process, and the end of the cold war and its impact in the new millennium.

POLI 392 *Approaches to Social Science Inquiry* (3 credits)

This course introduces students to a variety of approaches to social scientific inquiry, focusing on their underlying logics. The course covers variable-based research of the qualitative and quantitative variety and alternatives to this approach such as critical theory, process-tracing, modelling, ethnography, interpretivist analysis, and conceptual analysis.

POLI 393 *Quantitative Research Methods* (3 credits)

In this course, students learn how to define, operationalize, and measure variables and how to statistically describe the relationship between variables with the help of statistical software.

POLI 394 *Globalization and Sustainable Development* (3 credits)

Prerequisite: POLI 205 or permission of the Department. This course is an introduction to the emerging field of global environmental politics. It surveys the present environmental crisis and the roles of states, international organizations, and civil society. Various case studies dealing with oceans, forests, fisheries, biodiversity, global warming, and others are used to illustrate the inherent complexity of transnational ecological issues in the era of globalization.

POLI 395 *Politics of the Middle East* (3 credits)

Prerequisite: POLI 203 or permission of the Department. This course is a comparative study of politics and society in the modern Middle East and North Africa. Topics include the end of empires and the emergence of nation-states after World War I, political economy, regional conflicts, the question of democracy, the rise of religious movements, and the dynamics of revolutions and regime change.

POLI 396 *Honours Tutorial* (3 credits)

Prerequisite: Enrolment in the Honours (Thesis Option B) in Political Science. This course requires students to conduct a literature review in a topic to be chosen for their thesis, complete a bibliography, and work on their methodological approaches.

POLI 397 *Internship* (3 credits)

Prerequisite: Permission of the Department. The internship is a one-term apprenticeship in some aspect of public affairs and policy analysis. Placements may be drawn from all areas of possible employment outside the university, including private sector, government and community organizations. Students are required to submit a written report which summarizes and evaluates their work experience.

NOTE: Eligible students should have completed 27 credits in Political Science and must have an excellent academic record with a minimum GPA of 3.3. The undergraduate program director of the Department, acting on behalf of the Undergraduate Curriculum Committee, determines the eligibility of the student and approves the internship. Students should consult the Department for further information.

NOTE: Students who have received credit for POLI 497 may not take this course for credit.

POLI 400 *Advanced Seminar in International Relations Theory* (3 credits)

Prerequisite: See N.B. number (3) and POLI 205; or permission of the Department. This course addresses central questions of international relations theory, such as the causes of war, the paths to peace and co-operation, and the relationship between power and wealth. Students consider major paradigmatic approaches to these questions from realist, liberal and constructivist perspectives, as well as the utility of eclectic or cross-paradigmatic approaches.

NOTE: Students who have received credit for this topic under a POLI 486 number may not take this course for credit.

POLI 401 *American Political Thought* (3 credits)

Prerequisite: See N.B. number (3) and POLI 206; or permission of the Department. This seminar examines texts articulating the theoretical foundations and historical development of the American regime, with attention to the relationship between the institutions, processes, individuals and ideas shaping the American way of life.

POLI 402 *Advanced International Political Economy* (3 credits)

Prerequisite: See N.B. number (3) and POLI 205; or permission of the Department. This course covers both the major theoretical approaches in International Political Economy (IPE) and the practical efforts of states to shape, control, and adapt to the international economic system. Students develop and continually practise the skills of logically coherent analysis, discussion, and presentation.

NOTE: Students who have received credit for this topic under a POLI 486 number may not take this course for credit.

POLI 403 *Global Ecopolitical Analysis* (3 credits)

Prerequisite: See N.B. number (3) and POLI 205; or permission of the Department. This seminar course contextualizes contemporary ecological problems and global governance efforts to mitigate them. Students analyze multilateral environmental agreements in depth and explore various policy options that promise to anticipate future international ecopolitical issues.

NOTE: Students who have received credit for this topic under a POLI 486 number may not take this course for credit.

POLI 404 *International Institutions* (3 credits)

Prerequisite: See N.B. number (3) and POLI 205; or permission of the Department. This course is an advanced seminar covering major theoretical perspectives on the significance in world politics of international institutions and regimes, and of inter-governmental and non-governmental organizations.

NOTE: Students who have received credit for this topic under a POLI 498 number may not take this course for credit.

POLI 405 Comparative Electoral Systems (3 credits)

Prerequisite: See N.B. number (3) and POLI 203; or permission of the Department. This course focuses on the various political and policy impacts that electoral laws have on party competition in both advanced industrialized and less developed democracies. The course introduces students to the detailed study of both the structure and the consequences of the main electoral systems.

POLI 406 Comparative Federalism and Political Integration (3 credits)

Prerequisite: See N.B. number (3) and POLI 203; or permission of the Department. This course begins by examining the theories of political integration, federalism and nationalism, and the various policy instruments available to the modern state to achieve integration, before moving to an analysis of the current situation in a range of modern federal states as well as the emerging confederal system of the European Union.

NOTE: Students who have received credit for this topic under a POLI 498 number may not take this course for credit.

POLI 407 Parliamentary Bills of Rights (3 credits)

Prerequisite: See N.B. number (3) and POLI 204; or permission of the Department. This seminar explores the political origins and functioning of bills of rights in selected parliamentary democracies. Particular attention is paid to the "judicialization of politics" and the attempts to promote institutional dialogue between judicial and parliamentary actors in Westminster systems such as Canada, Australia, New Zealand and the United Kingdom.

NOTE: Students who have received credit for this topic under a POLI 488 number may not take this course for credit.

POLI 408 Public Opinion and Public Policy (3 credits)

Prerequisite: See N.B. number (3) and POLI 204; or permission of the Department. By relying on examples from Quebec and Canada, this seminar focuses on the role of public opinion in shaping public policy. It offers an overview of scholarly debate and research on public opinion and political communication.

NOTE: Students who have received credit for this topic under a POLI 498 number may not take this course for credit.

POLI 409 Canada: State-Society Relations (3 credits)

Prerequisite: See N.B. number (3) and POLI 204; or permission of the Department. The current research associated with the perception of a growing sense of democratic malaise and political discontent has prompted several academics to assess the current state of Canadian democracy. Students examine and discuss the current research and critically analyze the implications for Canada's state-society relations.

NOTE: Students who have received credit for this topic under a POLI 488 number may not take this course for credit.

POLI 410 Environmental Policy in the Developing World (3 credits)

Prerequisite: See N.B. number (3) and POLI 203; or permission of the Department. This course surveys the interactions between development strategies and the environment. Topics may include the environmental ramifications of large development projects, different systems of property rights, decentralization, international debt, foreign aid, and the challenges associated with managing highly valuable natural resources.

NOTE: Students who have received credit for this topic under a POLI 487 number may not take this course for credit.

POLI 411 Gender and Public Policy (3 credits)

Prerequisite: See N.B. number (3) and POLI 203 or 204; or permission of the Department. This course fosters an understanding of the theoretical and practical issues surrounding the study of gender and public policy and introduces them to recent scholarship in this area. Students examine a number of themes and debates, including gender and policy studies, gender and the welfare state, women's groups in the policy process, and feminist perspectives on the bureaucracy.

NOTE: Students who have received credit for this topic under a POLI 498 number may not take this course for credit.

POLI 412 Comparative Social Policy (3 credits)

Prerequisite: See N.B. number (3) and POLI 203; or permission of the Department. This seminar examines various explanations for the development and retrenchment of the welfare state in different countries. It analyzes typologies developed to conceptualize welfare-state regimes and examines, in a comparative fashion, key social policies such as health, pensions, and employment.

NOTE: Students who have received credit for POLI 461 may not take this course for credit.

POLI 414 Authors of Political Imagination (3 credits)

Prerequisite: See N.B. number (3) and POLI 206; or permission of the Department. This seminar considers the political impact of contingent narrative approaches to shifts in an individual's political imagination as opposed to purely rational or universally applicable philosophical arguments. The political potential of a broad range of literary styles, such as poetry, drama and the short story, is discussed alongside texts from the fields of philosophy, neuroscience and rhetoric so that their respective impacts can be assessed.

NOTE: Students who have received credit for this topic under a POLI 490 number may not take this course for credit.

POLI 415 Modern Political Theory and Religion (3 credits)

Prerequisite: See N.B. number (3) and POLI 206; or permission of the Department. This seminar explores the use and abuse of religious ideas, texts and traditions in the theoretical foundations of modernity such as ethical priorities and orientations, political and social institutions, and the purposes and status of science, found at the core of modern life.

NOTE: Students who have received credit for this topic under a POLI 490 number may not take this course for credit.

POLI 416 *Ancient Political Texts* (3 credits)

Prerequisite: See N.B. number (3) and POLI 206; or permission of the Department. This seminar explores, by careful reading of philosophic, poetic, or historical texts, the ancient political conceptualizations that frame and contribute to Western political ideas, issues and goals.

NOTE: Students who have received credit for this topic under a POLI 490 number may not take this course for credit.

POLI 417 *Governance* (3 credits)

Prerequisite: See N.B. number (3) and POLI 206; or permission of the Department. This seminar investigates how the efforts of governments to control the lives, thoughts and thought processes of the members of society are central to the modern governmental process and how they have been part of the agenda since the beginning of the late modern era.

NOTE: Students who have received credit for this topic under a POLI 490 number may not take this course for credit.

POLI 418 *Machiavelli* (3 credits)

Prerequisite: See N.B. number (3) and POLI 206; or permission of the Department. This seminar acquaints students with the arguments surrounding Machiavellian scholarship in particular and Renaissance political issues in general. Students study two of Machiavelli's canonical texts (*The Prince* and *The Discourses*) in addition to his less well known but essential contribution to Florentine historiography (*Florentine Histories*). The political and literary context of Machiavelli's writings, and how it colours contemporary criticism, is discussed.

NOTE: Students who have received credit for this topic under a POLI 490 number may not take this course for credit.

POLI 419 *Strategic Studies* (3 credits)

Prerequisite: See N.B. number (3) and POLI 205; or permission of the Department. This seminar covers the theory and application of nuclear weapons as a means of deterrence to warfare. It surveys issues in nuclear control, missile defense, and deterrence design. Through simulations, special attention is given to contrasting theories on the utility of nuclear force.

POLI 420 *Politics of Conservation* (3 credits)

Prerequisite: See N.B. number (3) and POLI 205; or permission of the Department. This course challenges students to analyze the complexities of wildlife conservation strategies at the local, national, and international levels. Students engage in teamwork and write individual papers on both specific endangered species and related concepts such as trade, development, corruption, conflict, public relations, and adaptive governance.

NOTE: Students who have received credit for this topic under a POLI 486 or 498 number may not take this course for credit.

POLI 421 *Transnational Politics* (3 credits)

Prerequisite: See N.B. number (3) and POLI 205; or permission of the Department. This seminar examines the activities of non-state actors, including NGOs, social movements, corporations, and individuals, and their roles in creating global society, building international institutions, and shaping foreign policy. Emphasis is placed on theories which seek to explain the relative influence of these actors in the international political system.

POLI 422 *Canadian Foreign Policy* (3 credits)

Prerequisite: See N.B. number (3) and POLI 205; or permission of the Department. This course examines Canada's foreign policy. In this seminar, particular emphasis is given to the decision-making process by which foreign policy is formulated and implemented, with particular reference to Canadian relations vis-à-vis the United States, the Commonwealth, and the developing countries.

POLI 423 *Peace Studies and Global Governance* (3 credits)

Prerequisite: See N.B. number (3) and POLI 205; or permission of the Department. This seminar focuses on the theory and practice of peace amongst nations. The course begins with a survey of analyses explaining the causes of aggression, war and peace, including theories of structural violence and revolution; nationalism and cosmopolitanism. It then examines the roles played by the state, international organizations, and peace movements, focusing on global and regional disarmament initiatives and peace-keeping.

POLI 424 *Corruption* (3 credits)

Prerequisite: See N.B. number (3) and POLI 203; or permission of the Department. This seminar deals with the corruption, patronage, and clientelism that characterize politics in much of the world. Case studies are used to explore the structures and processes leading to the use of informal channels and personal connections for doing politics.

NOTE: Students who have received credit for this topic under a POLI 487 or 498 number may not take this course for credit.

POLI 425 *Foundations of Liberalism* (3 credits)

Prerequisite: See N.B. number (3) and POLI 206; or permission of the Department. This seminar examines the genesis, principles and purposes of classical liberalism as it is articulated by early modern authors. This involves investigating conceptions of and arguments for personal freedom, natural equality, private property, individual rights and limited government, among other topics. It then explores the subsequent development and distortion of liberal ideas by later theorists in the tradition.

NOTE: Students who have received credit for this topic under a POLI 490 number may not take this course for credit.

POLI 426 *Nietzsche* (3 credits)

Prerequisite: N.B. number (3) and POLI 206; or permission of the Department. This seminar is devoted to an exploration of the philosophical teaching of Friedrich Nietzsche and the subsequent influence of this teaching on the political and spiritual

developments of Western culture. Nietzsche's influence on such movements as deconstruction, nihilism, and postmodernism is explored.

NOTE: Students who have received credit for this topic under a POLI 498 number may not take this course for credit.

POLI 427 Political Thought of the Enlightenment (3 credits)

Prerequisite: See N.B. number (3) and POLI 206; or permission of the Department. This course examines the impact of Enlightenment thinking in Europe, especially Scotland and the reformed parts of Northern France, Switzerland, the Netherlands, and the German states.

NOTE: Students who have received credit for this topic under a POLI 498 number may not take this course for credit.

POLI 428 Constitutional Politics in Canada (3 credits)

Prerequisite: See N.B. number (3) and POLI 204; or permission of the Department. This seminar considers the emergence of "mega constitutional politics" in the 1960-1995 period involving state and societal actors. Topics include the Victoria Charter, Patriation, Meech Lake Accord, Charlottetown Accord, the 1980 and 1995 Quebec referenda, and attempts at non-constitutional reform since 1995.

NOTE: Students who have received credit for this topic under a POLI 488 number may not take this course for credit.

POLI 429 Political Socialization in Canadian and Comparative Perspective (3 credits)

Prerequisite: See N.B. number (3) and POLI 203 or 204; or permission of the Department. This course aims at understanding the social origins of political opinions, attitudes and values, under what conditions they change, and how they affect political dynamics in Canada and in a comparative perspective.

NOTE: Students who have received credit for this topic under a POLI 487 number may not take this course for credit.

POLI 431 State-Society Relations in China (3 credits)

Prerequisite: See N.B. number (3) and POLI 203; or permission of the Department. This course explores different approaches to the study of state-society relations in the People's Republic of China. Specifically, the course considers the applicability of concepts such as neo-traditionalism, state reach, corporatism, civil society, and rightful resistance during both the Maoist and reform eras.

NOTE: Students who have received credit for this topic under a POLI 487 number may not take this course for credit.

POLI 433 Critics of Modernity (3 credits)

Prerequisite: See N.B. number (3) and POLI 206; or permission of the Department. This seminar studies selected writings by major critics of modernity during the 20th century. The authors studied may include Hannah Arendt, Albert Camus, Fyodor Dostoevsky, George Grant, Bertrand de Jouvenel, Alasdair MacIntyre, Jacques Maritain, Richard Niebuhr, Michael Oakeshott, Leo Strauss, Charles Taylor, and Eric Voegelin.

POLI 434 Politics of Violence in Latin America (3 credits)

Prerequisite: See N.B. number (3) and POLI 203; or permission of the Department. This course provides an overview of Latin American history and development, beginning with conquest, through the lens of violence. Latin America is one of the most violent regions of the world. Gang wars, drug trafficking, kidnappings, and femicides are the regular fodder of the news media, but the class focuses on the structural violence — the marginalization and oppression of the poor masses inherent to local societies — that underlies the more spectacular forms of violence.

NOTE: Students who have received credit for this topic under a POLI 487 number may not take this course for credit.

POLI 435 Advanced Seminar in U.S. Politics (3 credits)

Prerequisite: See N.B. number (3) and POLI 203; or permission of the Department. This course examines specific substantive or thematic topics in U.S. government and politics, such as the U.S. Congress and the legislative process, U.S. constitutional law, U.S. law and society, and American political development.

NOTE: Students who have received credit for this topic under a POLI 487 number may not take this course for credit.

POLI 436 State and Society in the Middle East (3 credits)

Prerequisite: See N.B. number (3) and POLI 203; or permission of the Department. This seminar explores patterns of authority and protest in the Middle East. The topics include the institutional and ideological sources of authoritarianism, the role of the military in politics, the tension between religion and secularism in the formation of national identities, and the various social movements, including religious and ethnic movements, that challenge prevailing structures of power.

NOTE: Students who have received credit for this topic under a POLI 487 number may not take this course for credit.

POLI 437 Special Issues in African Development (3 credits)

Prerequisite: See N.B. number (3) and POLI 203; or permission of the Department. This course surveys debates concerning development with a special focus on sub-Saharan Africa. Topics include the role of the state in development, the effect of African economies' global connections, the activities of non-governmental organizations, and the effect of natural resources on development.

NOTE: Students who have received credit for this topic under a POLI 487 number may not take this course for credit.

POLI 438 Decentralization and Development (3 credits)

Prerequisite: See N.B. number (3) and POLI 203; or permission of the Department. This course introduces concepts related to the various forms of decentralization and explores the diverse expectations, politics, and outcomes associated with decentralization.

NOTE: Students who have received credit for this topic under a POLI 487 or 498 number may not take this course for credit.

POLI 451 *Directed Studies in International Politics* (3 credits)

Prerequisite: See N.B. number (3); permission of the undergraduate program director. This special reading course is designed in conjunction with a faculty member to explore topics and themes in a specific research area in international politics of interest to the student and faculty member.

NOTE: Enrolment is limited to one 400-level Directed Studies course per student.

POLI 452 *Directed Studies in Comparative Politics* (3 credits)

Prerequisite: See N.B. number (3); permission of the undergraduate program director. This special reading course is designed in conjunction with a faculty member to explore topics and themes in a specific research area in comparative politics of interest to the student and faculty member.

NOTE: Enrolment is limited to one 400-level Directed Studies course per student.

POLI 453 *Directed Studies in Canadian and Quebec Politics* (3 credits)

Prerequisite: See N.B. number (3); permission of the undergraduate program director. This special reading course is designed in conjunction with a faculty member to explore topics and themes in a specific research area in Canadian and Quebec politics of interest to the student and faculty member.

NOTE: Enrolment is limited to one 400-level Directed Studies course per student.

POLI 454 *Directed Studies in Public Policy and Administration* (3 credits)

Prerequisite: See N.B. number (3); permission of the undergraduate program director. This special reading course is designed in conjunction with a faculty member to explore topics and themes in a specific research area in public policy and administration of interest to the student and faculty member.

NOTE: Enrolment is limited to one 400-level Directed Studies course per student.

POLI 455 *Directed Studies in Political Theory* (3 credits)

Prerequisite: See N.B. number (3); permission of the undergraduate program director. This special reading course is designed in conjunction with a faculty member to explore topics and themes in a specific research area in political theory of interest to the student and faculty member.

NOTE: Enrolment is limited to one 400-level Directed Studies course per student.

POLI 463 *Government and Business in Canada* (3 credits)

Prerequisite: See N.B. number (3) and POLI 204; or permission of the Department. This seminar in public policy is designed to explore the relationship between government and business in Canada. Particular attention is paid to the formation and implementation of policy intended to promote and control enterprise, and the role of government as entrepreneur.

POLI 480 *Workshops on Social Science Research* (3 credits)

Prerequisite: See N.B. number (3); or permission of the Department. Students must complete the permissions request form at concordia.ca/WSSR before registering for the course. Led by scholars, public officials, politicians, and policy analysts, these workshops are intensive short learning experiences designed to enhance students' knowledge and skills in the areas of democratic governance, public policy, and research methodology.

POLI 481 *Advanced Seminar in European Politics* (3 credits)

Prerequisite: See N.B. number (3) and POLI 203; or permission of the Department. This seminar examines the nature of politics of the states and societies of Western Europe, including the significance of their membership in the European Union.

POLI 483 *State and Society in Latin America* (3 credits)

Prerequisite: See N.B. number (3) and POLI 203; or permission of the Department. This seminar examines the nature of politics in Latin America. A specific focus is placed on selective issues of state-society relations, and the emergence of new political forces and institutions in response to changes in the socio-economic structure of the region.

POLI 484 *Post-Communist Democracies* (3 credits)

Prerequisite: See N.B. number (3) and POLI 203; or permission of the Department. This seminar reviews the post-communist states' transition to democracy and their state-formation. The seminar focuses on the interplay between the forces of nationalism, ethnicity, identity, and the transition to democratic structures.

POLI 485 *Issues in Development and Democracy* (3 credits)

Prerequisite: See N.B. number (3) and POLI 203; or permission of the Department. This seminar focuses on the political and economic problems of the new nations. A particular emphasis is placed on understanding the process of development and state formation within a democratic context.

POLI 486 *Advanced Seminar in International Relations* (3 credits)

Prerequisite: See N.B. number (3) and POLI 205; or permission of the Department.

POLI 487 *Advanced Seminar in Comparative Politics* (3 credits)

Prerequisite: See N.B. number (3) and POLI 203; or permission of the Department.

POLI 488 Advanced Seminar in Canadian and Quebec Politics (3 credits)
Prerequisite: See N.B. number (3) and POLI 204; or permission of the Department.

POLI 489 Advanced Seminar in Public Policy and Administration (3 credits)
Prerequisite: See N.B. number (3) and POLI 203 or 204; or permission of the Department.

POLI 490 Advanced Seminar in Political Theory (3 credits)
Prerequisite: See N.B. number (3) and POLI 206; or permission of the Department.

Advanced seminars deal with selected topics in sub-fields of political science. Topics vary from year to year.
NOTE: Students should consult the Department for a description of these courses.

POLI 495 Honours Thesis (6 credits)
Prerequisite: Enrolment in the Honours (Thesis Option B) in Political Science. The student works with an individual faculty member in a particular field of study in Political Science. Students are asked to produce a sustained piece of written work to be defended before a departmental committee.

POLI 496 Honours Seminar (3 credits)
Prerequisite: Permission of the Department. This seminar involves the student in formulating an honours research proposal, and the research and writing of an honours paper. Topics of the seminar vary from year to year.

Faculty

Chair

AARON JOHNSON, PhD *University of Glasgow*; Associate Professor

Associate Chair

ANDREW RYDER, PhD *University of British Columbia*; Associate Professor

Distinguished Professors Emeriti

ZALMAN AMIT, PhD *McGill University*

TANNIS ARBUCKLE-MAAG, PhD *University of Toronto*

ANNA-BETH DOYLE, PhD *Stanford University*

PETER SHIZGAL, PhD *University of Pennsylvania*; Provost's Distinction

JANE STEWART, PhD *University of London*

BARBARA WOODSIDE, PhD *McMaster University*

Professors

SHIMON AMIR, PhD *McGill University*; Provost's Distinction

WAYNE BRAKE, PhD *McGill University*

WILLIAM BUKOWSKI, PhD *Michigan State University*

JUNE S. CHAIKELSON, PhD *McGill University*

C. ANDREW CHAPMAN, PhD *McMaster University*

MICHAEL CONWAY, PhD *University of Waterloo*

ROBERTO DE ALMEIDA, PhD *Rutgers University*

MARK ELLENBOGEN, PhD *Concordia University*

RICK GURNSEY, PhD *Queen's University*

REX B. KLINE, PhD *Wayne State University*

KAREN Z. LI, PhD *University of Toronto*

JENNIFER McGRATH, PhD *Bowling Green State University*

ALEXANDRE MORIN, PhD *Université de Montréal*

DAVID MUMBY, PhD *University of British Columbia*

VIRGINIA B. PENHUNE, PhD *McGill University*

NATALIE PHILLIPS, PhD *Dalhousie University*

DIANE POULIN-DUBOIS, PhD *Université de Montréal*; Provost's Distinction

ADAM RADOMSKY, PhD *University of British Columbia*

NORMAN SEGALOWITZ, PhD *University of Oxford*

LISA SERBIN, PhD *State University of New York at Stony Brook*; Provost's Distinction

URI SHALEV, PhD *Tel Aviv University*

DALE M. STACK, PhD *Queen's University*; Provost's Distinction

CARSTEN WROSCH, PhD *Free University of Berlin*

Associate Professors

NICOLE ALBERTS, PhD *University of Regina*

ANDREAS ARVANITOGLIANNIS, PhD *Concordia University*

ERIN T. BARKER, PhD *University of Alberta*

LINDA BOOIJ, PhD *Leiden University, Netherlands*

KRISTA BYERS-HEINLEIN, PhD *University of British Columbia*

NADIA CHAUDHRI, PhD *University of Pittsburgh*

KRISTEN DUNFIELD, PhD *Queen's University*

BENJAMIN EPPINGER, PhD *Saarland University*

JEAN-PHILIPPE GOUIN, PhD *Ohio State University*

MIHAELA D. IORDANOVA, PhD *University of New South Wales*

SYDNEY B. MILLER, PhD *McGill University*

ROISIN O'CONNOR, PhD *State University of New York at Buffalo*

Assistant Professors

EMILY B.J. COFFEY, PhD *McGill University*

MICKAEL DEROCHE, PhD *Cardiff University*

CHRISTOPHER J. STEELE, PhD *Concordia University*

Affiliate Professors

SIMON BACON, PhD *University of Birmingham*
YVES BEAULIEU, PhD *Queen's University*
RICHARD COURTEMANCHE, PhD *Université de Montréal*
THIEN THANH DANG-VU, PhD *Université de Liège*
PETER DARLINGTON, PhD *University of Western Ontario*
MICHEL DUGAS, PhD *Université Laval*
CLAUDINE GAUTHIER, PhD *Université de Montréal*
NINA HOWE, PhD *University of Waterloo*
LISA KAKINAMI, PhD *University of Rochester*
MELODY MOGRASS, PhD *Université de Montréal*
NAJMEH MOHANI, PhD *McGill University*
WALTER WITTICH, PhD *McGill University*

Senior Lecturers

THERESA BIANCO, PhD *University of Western Australia*
LUCIE BONNEVILLE, PhD *Concordia University*
CONSTANTINA GIANNOPoulos, PhD *Concordia University*

For the complete list of faculty members, please consult the Department website.

Location

Loyola Campus
Psychology Building, Room: PY 146
514-848-2424, ext. 2222

Richard J. Renaud Science Complex, Room: SP 244

Department Objectives

Psychology is the scientific study of mental life, both its neurological bases and its manifestations in behaviour. Psychology also examines the factors that promote change in behaviour and mental activity. Through teaching and research, the Department serves the community by furthering such knowledge and applying it to promote human welfare. The commitment of faculty members to research assures that students keep up with current developments. Their involvement in community programs keeps students and faculty alike in close touch with the practical application of the discipline.

Programs

The Department of Psychology offers minor, major, specialization, and honours programs. Both BA and BSc degrees are offered, and students may also choose a Behavioural Neuroscience option for these degrees. Students planning a career or graduate studies in psychology are normally expected to follow the appropriate honours or specialization program. Students planning to pursue graduate studies in clinical psychology should ensure that the course electives they choose coincide with requirements of the licensing boards. The major program is designed for students who wish to concentrate their studies in psychology but at the same time wish to pursue general education in other disciplines. The major program can be combined with a major in another department.

Students registered in the Honours, Specialization, or Major in Psychology may select Psychology electives in various Content Areas in order to obtain a broad overview of the discipline. The five Content Areas within the Department are Social, Personality, and Culture; Developmental; Clinical and Health; Behavioural Neuroscience; and Cognitive Science. It is possible for students to pursue in-depth studies within these specific Content Areas by taking Tier 2 courses.

The minor program can be taken only by students registered in another degree program and provides the opportunity to gain basic exposure to the main sub-disciplines of psychology or to pursue one such area in some depth.

Students are strongly encouraged to take advantage of academic counselling services available in the Department of Psychology in order to select the program and courses that best meet their needs. Students are ultimately responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

Students seeking admission to an honours program may apply either for direct entry on the University application form or, once in the program, to the departmental honours advisor normally following the completion of 30 credits. Students must have a GPA of 3.7 in Psychology courses to qualify for entry to the honours and must maintain this GPA to remain within the program.

To qualify for entry into a specialization program, students must have a GPA of 3.2 in Psychology courses and must maintain this GPA to remain within the program.

For additional information concerning programs and courses, students should consult the Department.

- 66 BA Honours in Psychology**
- 30 Core Requirements (PSYC 305³, 310³, 311³, 315³, 316³, 355³, 490³, 491³, 495⁶)
- 15 Chosen from Tier 1 with at least:
- 6 chosen from the Social, Personality, and Culture Content Area and/or the Developmental Content Area
 - 6 chosen from the Behavioural Neuroscience Content Area and/or the Cognitive Science Content Area
- 12 Chosen from at least two different Tier 2 Content Areas
- 9 Psychology elective credits at the 300 or 400 level

- 66 BSc Honours in Psychology**
- 30 Core Requirements (PSYC 305³, 310³, 311³, 315³, 316³, 355³, 490³, 491³, 495⁶)
- 15 Chosen from Tier 1 with at least:
- 6 chosen from the Social, Personality, and Culture Content Area and/or the Developmental Content Area
 - 6 chosen from the Behavioural Neuroscience Content Area and/or the Cognitive Science Content Area
- 12 Chosen from at least two different Tier 2 Content Areas
- 9 Psychology elective credits at the 300 or 400 level

NOTE: In addition, students must complete a minimum of 15 science credits outside the Department.

NOTE: Students must have completed an appropriate program of science prerequisites in order to be admitted to BSc programs.

- 66 BSc Honours in Psychology (Behavioural Neuroscience Option)**
- 30 Core Requirements (PSYC 305³, 310³, 311³, 315³, 316³, 355³, 490³, 491³, 495⁶)
- 15 Chosen from Tier 1 with at least:
- 6 chosen from the Social, Personality, and Culture Content Area and/or the Developmental Content Area
 - 6 chosen from the Behavioural Neuroscience Content Area and/or the Cognitive Science Content Area
- 12 Chosen from the Tier 2 Behavioural Neuroscience Content Area and PSYC 445³
- 9 Psychology elective credits at the 300 or 400 level

An additional 21 Science credits as specified below:

- 6 CHEM 221³, 271³
- 3 BIOL 225³ or 226³
- 12 Chosen from BIOL 225³, 226³, 227³, 261³, 266³, 321³, 364³, 367³, 462³, 480³; CHEM 222³, 375³, 472³, 476³, 478³;
PHYS 443³, 445³

60 BA Specialization in Psychology

- 15 Core Requirements (PSYC 305³, 310³, 315³, 316³, 355³)
- 15 Chosen from Tier 1 with at least:
- 6 chosen from the Social, Personality, and Culture Content Area and/or the Developmental Content Area
 - 6 chosen from the Behavioural Neuroscience Content Area and/or the Cognitive Science Content Area
- 12 Chosen from at least two different Tier 2 Content Areas
- 18 Psychology elective credits at the 300 or 400 level

60 BSc Specialization in Psychology (Behavioural Neuroscience Option)

- 15 Core Requirements (PSYC 305³, 310³, 315³, 316³, 355³)
- 15 Chosen from Tier 1 with at least:
- 6 chosen from the Social, Personality, and Culture Content Area and/or the Developmental Content Area
 - 6 chosen from the Behavioural Neuroscience Content Area and/or the Cognitive Science Content Area
- 12 Chosen from the Tier 2 Behavioural Neuroscience Content Area and PSYC 445³
- 18 Psychology elective credits at the 300 or 400 level

An additional 21 Science credits as specified below:

- 6 CHEM 221³, 271³
- 3 BIOL 225³ or 226³
- 12 Chosen from BIOL 225³, 226³, 227³, 261³, 266³, 321³, 364³, 367³, 382³, 462³, 480³; CHEM 222³, 375³, 472³, 476³, 478³;
PHYS 443³, 445³

60 BSc Specialization in Psychology

- 15 Core Requirements (PSYC 305³, 310³, 315³, 316³, 355³)
- 15 Chosen from Tier 1 with at least:
- 6 chosen from the Social, Personality, and Culture Content Area and/or the Developmental Content Area
 - 6 chosen from the Behavioural Neuroscience Content Area and/or the Cognitive Science Content Area
- 12 Chosen from at least two different Tier 2 Content Areas
- 18 Psychology elective credits at the 300 or 400 level

NOTE: In addition, students must complete a minimum of 15 science credits outside the Department.

NOTE: Students must have completed an appropriate program of science prerequisites in order to be admitted to BSc programs.

- 42 BA Major in Psychology**
12 Core Requirements (PSYC 305³, 310³, 315³, 355³)
15 Chosen from Tier 1 with at least:
6 chosen from the Social, Personality, and Culture Content Area and/or the Developmental Content Area
6 chosen from the Behavioural Neuroscience Content Area and/or the Cognitive Science Content Area
15 Psychology elective credits at the 300 or 400 level

- 42 BSc Major in Psychology**
12 Core Requirements (PSYC 305³, 310³, 315³, 355³)
15 Chosen from Tier 1 with at least:
6 chosen from the Social, Personality, and Culture Content Area and/or the Developmental Content Area
6 chosen from the Behavioural Neuroscience Content Area and/or the Cognitive Science Content Area
15 Psychology elective credits at the 300 or 400 level

NOTE: Students must have completed an appropriate program of science prerequisites in order to be admitted to BSc programs.

- 24 Minor in Psychology**
6* PSYC 200
6 Core Requirements (PSYC 310³, 315³)
12 Psychology elective credits with a minimum of nine credits at the 300 and/or 400 level

**Students exempted from PSYC 200 will replace the credits with 300- or 400-level PSYC credits.*

Core Requirements

FOR MINOR

- PSYC 310 Research Methods and Designs I (3 credits)
PSYC 315 Statistical Analysis I (3 credits)
-

PLUS FOR MAJOR

- PSYC 305 History and Systems (3 credits)
PSYC 355 Fundamentals of Behavioural Neurobiology (3 credits)
-

PLUS FOR SPECIALIZATION

- PSYC 316 Statistical Analysis II (3 credits)
-

PLUS FOR HONOURS

- PSYC 311 Research Methods and Designs II (3 credits)
PSYC 490 Honours Seminar Topics (3 credits)
PSYC 491 Honours Seminar Issues (3 credits)
PSYC 495 Honours Thesis (6 credits)
-

TIER 1

Social, Personality, and Culture Content Area

- PSYC 321 Fundamentals of Personality (3 credits)
PSYC 325 Fundamentals of Social Psychology (3 credits)

Developmental Content Area

- PSYC 333 Fundamentals of Lifespan Development (3 credits)

Clinical and Health Content Area

- PSYC 340 Fundamentals of Psychopathology (3 credits)
PSYC 341 Fundamentals of Health Psychology (3 credits)
PSYC 342 Forensic Psychology (3 credits)

Behavioural Neuroscience Content Area

- PSYC 351 Fundamentals of Learning (3 credits)
PSYC 354 Evolutionary Foundations of Psychology (3 credits)

Cognitive Science Content Area

- PSYC 363 Fundamentals of Sensation and Perception (3 credits)
PSYC 364 Fundamentals of Cognition (3 credits)

TIER 2

Social, Personality, and Culture Content Area

- PSYC 420 The Self in Social Context (3 credits)
PSYC 423 Emotion (3 credits)
PSYC 424 Cultural Psychology (3 credits)
PSYC 425 Culture, Development, and the Self (3 credits)
PSYC 426 Psychometrics and Individual Differences (3 credits)
PSYC 427 Current Issues in Personality (3 credits)
PSYC 428 Social and Cultural Advanced Issues (3 credits)

Developmental Content Area

- PSYC 431 Infancy (3 credits)
PSYC 432 Childhood Development (3 credits)
PSYC 433 Adolescent Development (3 credits)
PSYC 434 Aging (3 credits)
PSYC 435 Developmental Psychopathology (3 credits)
PSYC 438 Developmental Advanced Issues (3 credits)

Clinical and Health Content Area

- PSYC 440 Psychopathology: Mood, Anxiety, and Personality Disorders (3 credits)
PSYC 441 Psychopathology: Schizophrenia and Neurocognitive Disorders (3 credits)
PSYC 442 Psychopathology: Behaviour Regulation Disorders (3 credits)
PSYC 443 Psychological Intervention Models (3 credits)
PSYC 444 Hypnosis and Dissociation (3 credits)
PSYC 445 Human Neuropsychology (3 credits)
PSYC 446 Stress (3 credits)
PSYC 447 Current Issues in Health Psychology (3 credits)
PSYC 448 Clinical Advanced Issues (3 credits)

Behavioural Neuroscience Content Area

- PSYC 450 Neurobiology of Drug Abuse and Addiction (3 credits)
PSYC 451 Neurobiology of Learning and Memory (3 credits)
PSYC 452 Neurobiology of Sensation and Perception (3 credits)
PSYC 453 Neurobiology of Motivated Behaviour (3 credits)
PSYC 454 Hormones and Behaviour (3 credits)
PSYC 455 Neuropharmacology (3 credits)
PSYC 456 Functional Neuroanatomy (3 credits)
PSYC 457 Foundations of Animal Behaviour (3 credits)
PSYC 458 Behavioural Neuroscience Advanced Issues (3 credits)

Cognitive Science Content Area

- PSYC 460 Vision (3 credits)
PSYC 461 Computational Modelling of Human Cognition (3 credits)
PSYC 462 Memory and Attention (3 credits)
PSYC 463 Concepts and Categories (3 credits)
PSYC 464 Judgment and Decision Making (3 credits)
PSYC 465 Language (3 credits)
PSYC 466 Cognitive Development (3 credits)
PSYC 467 Learning (3 credits)
PSYC 468 Cognitive Science Advanced Issues (3 credits)
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ADVANCED EXPERIENCE COURSES

- PSYC 387 Directed Research in Psychology (3 credits)
PSYC 483 Directed Readings in Psychology (3 credits)
PSYC 485 Specialization Project (6 credits)
PSYC 487 Advanced Directed Research in Psychology (3 credits)
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Courses

PSYC 200 *Introductory Psychology* (6 credits)

This comprehensive survey course introduces the student to a wide variety of topics in scientific psychology. Topics include the foundations of modern psychology, neural mechanisms, learning and memory, sensation and perception, motivation and emotion, cognitive processes, social influences, personality, disorders of cognition and behaviour, and therapy.

NOTE: Students who have received credit for or exemption from Introductory Psychology at Cegep or other post-secondary

institutions may not take this course for credit.

NOTE: Students entering all Psychology programs except the minor who have not received credit for or exemption from Introductory Psychology at Cegep or other post-secondary institutions must take this course, but not for Psychology program credit.

PSYC 210 *Critical Thinking in Psychology* (3 credits)

This course provides an innovative approach to understanding how psychologists think about the mind and behaviour, ask and answer questions, and collect and interpret evidence to clarify ideas and test hypotheses. Students learn the difference between critical thinking and gullibility. Students also develop skills to identify errors and misrepresentations in information presented in the media and in viewpoints driven by agendas rather than evidence.

NOTE: Students registered in a Psychology program may not take this course for credit.

PSYC 221 *Foundations of Personality* (3 credits)

The organization, functioning, and development of personality are discussed from the point of view of the major current theories. Evidence from empirical studies is introduced to illustrate various influences on personality. Socio-economic, cultural, and biological factors may also be considered.

NOTE: Students registered in a Psychology program may not take this course for credit.

PSYC 222 *Person and Society* (3 credits)

This course considers current personality and social psychology research as it relates to people's everyday lives. The focus is on blending these two research areas. The study of personality concerns itself with the psychology of the individual, individual differences, and the role of individual-level factors in explaining behaviour. In contrast, social psychology focuses on how behaviour may be influenced by social and contextual factors. Topics may include the many ways of describing the self and others, persuasion, group processes, close relationships, aggression, and prosocial behaviour.

NOTE: Students registered in a Psychology program may not take this course for credit.

PSYC 223 *Motivation and Emotion in Daily Life* (3 credits)

Why do individuals do the things they do? Why don't individuals do the things they don't do? When confronted with challenges, what determines whether individuals persist in the face of difficulty or decide to invest their energy elsewhere? This course presents models that address the question of why individuals do the things they do. These models are related to specific topics such as appetitive behaviour, love and sexual behaviour, arousal and attention, peak performance, aggression and anger, conflict, stress, curiosity, creativity, goal-setting, and achievement.

NOTE: Students registered in a Psychology program may not take this course for credit.

PSYC 230 *Womb to Tomb: Psychological Transitions Across the Lifespan* (3 credits)

This course studies the cognitive, socio-emotional, and physical changes and continuities that occur across the lifespan. Major theories of development are discussed and related to each of the life stages. Students also gain insight into the developmental processes that influence themselves and others.

NOTE: Students who have received credit for AHSC 220 may not take this course for credit.

NOTE: Students registered in a Psychology program may not take this course for credit.

PSYC 233 *Adolescence* (3 credits)

This course is an introduction to the study of adolescence. Topics are considered from cross-disciplinary and cross-cultural perspectives. Topics may include physical change, family relationships, friends and peers, sexual and sex-related behaviours, cognitive growth, and lifestyles.

NOTE: Students registered in a Psychology program may not take this course for credit.

NOTE: Students who have received credit for PSYC 280 may not take this course for credit.

PSYC 235 *When Good Kids Go Bad* (3 credits)

This course examines the social, emotional, and behavioural problems encountered by children, youth, and parents. Manifestations of these issues range from day-to-day "normal" concerns to maladaptive and dangerous behaviours. Potential contributing biological, familial, peer, cultural, and economic factors are considered, as well as the uniquely different ways in which individuals react to what seem to be "similar" backgrounds.

NOTE: Students registered in a Psychology program may not take this course for credit.

PSYC 240 *Foundations of Psychopathology* (3 credits)

This course deals with major concepts and issues concerning psychopathology in humans. It considers current scientific models of diagnosis, etiology, assessment, and therapy. It reviews the major disorders of the DSM system, and explores social, learning, cognitive, biomedical, and psychodynamic approaches to major clinical disorders.

NOTE: Students registered in a Psychology program may not take this course for credit.

PSYC 241 *Stress, Health, and Coping* (3 credits)

Coping skills are directly related to health and to the amount of stress a person experiences. This course introduces students to research that explains how and why stress affects health. The ways in which coping skills and other recourses can effectively reduce stress are also considered. The course examines what psychologists know about stress in a research-oriented manner, giving equal attention to the physiological, psychological, and cognitive underpinnings of coping and health.

NOTE: Students registered in a Psychology program may not take this course for credit.

PSYC 242 *Psychology and the Law* (3 credits)

Psychology and the law interact in myriad ways. The criminal justice system, from its code to its enforcement, is based on implicit psychological assumptions about human behaviour and how it should be controlled. Those in the justice system make decisions based on evidence from observations and testimony, both of which are assumed to be gathered in an objective, unbiased manner. Those in psychological professions assume they can influence decisions made in the legal system by providing experimental evidence. This course examines the roles psychologists play in the legal system, the assumptions of both legal and psychological professional groups, and how these groups can complement one another.

NOTE: Students registered in a Psychology program may not take this course for credit.

NOTE: Students who have received credit for PSYC 263 or for this topic under a PSYC 298 number may not take this course for credit.

PSYC 243 *Learning Disabilities* (3 credits)

This course deals with selected aspects of theory and practice related to learning disabilities including perceptual and motor disabilities, language disabilities, and methods of diagnosis and remediation. Issues of accurate assessment and differentiation from other forms of disability are also considered.

NOTE: Students registered in a Psychology program may not take this course for credit.

NOTE: Students who have received credit for PSYC 281 may not take this course for credit.

PSYC 250 *Drugs and Behaviour* (3 credits)

This course examines various factors related to the use and abuse of licit and illicit drugs including alcohol and nicotine, depressants and stimulants, tranquilizers, opium derivatives, and hallucinogenic compounds. One of the main themes emphasized is why some people lose their ability to socially and physiologically regulate their intake. The course material focuses on the prevalent concepts in the field, theoretical models guiding researchers and clinicians, and approaches to intervention.

NOTE: Students registered in a Psychology program may not take this course for credit.

NOTE: Students who have received credit for PSYC 261 or for this topic under a PSYC 298 number may not take this course for credit.

PSYC 251 *Learning and Memory in Daily Life* (3 credits)

This course examines current research on learning and memory and introduces students to a variety of topics in this area. Theories of learning and memory are related to examples from everyday life. Specific topics may include memory accuracy, techniques for improving study skills and school performance, animal training, sports training, strategies for memory improvement, strategies for changing bad habits, and child discipline.

NOTE: Students registered in a Psychology program may not take this course for credit.

PSYC 255 *Brain and Behaviour* (3 credits)

This course is an introduction to the biological bases of behaviour. The structural and functional anatomy of the central nervous system is presented, with particular emphasis on the neural pathways involved in behaviours relating to motivation, mood, learning and memory, and sensation and perception. This course explores how recent research helps in understanding how normal and abnormal brain functioning affect human behaviour.

NOTE: Students registered in a Psychology program may not take this course for credit.

PSYC 264 *Perception and Cognition in Daily Life* (3 credits)

This course introduces topics related to perception and cognition. The emphasis of the course is on how humans acquire, store, and use information in real-world contexts. Topics covered include reading, object perception, art and motion pictures, language processing, music, problem solving, and planning.

NOTE: Students registered in a Psychology program may not take this course for credit.

NOTE: Students who have received credit for PSYC 249 or for this topic under a PSYC 298 number may not take this course for credit.

SELECTED TOPICS IN PSYCHOLOGY

The 200-level Selected Topics courses (PSYC 297; PSYC 298; PSYC 299) are designed as elective courses for students who are not registered in a Psychology program. These courses cover a wide variety of areas of contemporary interest. The particular topic varies from one term to the next and the material is dealt with in a manner appropriate for students who have minimal formal background in psychology.

NOTE: Students registered in a Psychology program may not take these courses for credit.

The Department also offers 400-level topics courses for students registered in Psychology programs. (See below.)

PSYC 297 *Selected Topics in Psychology* (3 credits)**PSYC 298 *Selected Topics in Psychology*** (3 credits)**PSYC 299 *Selected Topics in Psychology*** (6 credits)**PSYC 305 *History and Systems*** (3 credits)

Prerequisite: PSYC 200 or equivalent. This introductory course examines the historical background of psychology beginning with ancient Greece, the Middle Ages, and the Renaissance, through the William James era. Early contributions to psychology from

the fields of philosophy, religion, physics, physiology, and psychophysics are presented and related to the various psychological schools of thought of the 19th century. Students gain an understanding of how cultural and social forces and various scientific paradigms shaped psychological theory and how psychological perspectives contribute to social life.

NOTE: Students who have received credit for PSYC 320 may not take this course for credit.

PSYC 310 Research Methods and Designs I (3 credits)

Prerequisite: PSYC 200 or equivalent; PSYC 315 previously or concurrently. This course describes the methods used by psychology researchers to obtain information and understand psychological phenomena and processes. Students learn how research studies are conceptualized and conducted, and how data are analyzed and interpreted within specific areas of psychology. Observational, experimental, and correlational techniques are presented in the context of ongoing research, to enable students to develop a conceptual understanding of the procedures used to develop and evaluate hypotheses and theories in psychology.

PSYC 311 Research Methods and Designs II (3 credits)

Prerequisite: PSYC 310, 315; PSYC 316 previously or concurrently; and permission of the Department. Advanced methodological issues in psychological research are introduced. Students gain experience in the critical evaluation of research design and methodology by conducting several experiments in different research areas, by analyzing and interpreting data from these experiments, and writing and presenting their research findings. This course is primarily intended for students who are preparing for graduate school. Lectures and laboratory.

PSYC 315 Statistical Analysis I (3 credits)

Prerequisite: PSYC 200 or equivalent; or permission of the Department. This course is an introduction to statistics that are used in the context of psychology research. Topics dealt with include frequency distributions, measures of central tendency and dispersion, the normal curve, correlation, linear regression, elementary probability theory, an introduction to hypothesis testing, and the t test. These topics are covered in lectures and in weekly laboratory sessions where students learn how to perform statistical tests both manually and with specialized software.

NOTE: Students who have received credit for BIOL 322, COMM 215, DESC 244, ECON 221 and 222, GEOG 362, MAST 333, SOCI 212 and 213, or STAT 249 and 250 may not take this course for credit.

NOTE: Students who have completed Cegep QM 360-300 (Quantitative Methods) and MATH 201-300 (Complementary Topics in Mathematics) with 75% or better grades can be exempt from PSYC 315. Exemptions may be granted on the basis of other courses. Application for exemption should be made to the Arts and Science Student Academic Services.

PSYC 316 Statistical Analysis II (3 credits)

Prerequisite: PSYC 310, 315. This course is an extension of PSYC 315. It is designed to advance students' understanding of hypothesis testing and statistical inferences. The course presents the general linear model, which subsumes multiple regression, analysis of variance (ANOVA), and analysis of covariance (ANCOVA). As well, the course deals in detail with the limits of null-hypothesis significance testing (NHST) and reviews alternatives to NHST including confidence intervals, measures of effect size, and meta-analysis. Lectures and weekly laboratory.

NOTE: Students who have received credit for ECON 221 and 222, MAST 221 and 333, or STAT 249 and 250 may not take this course for credit.

PSYC 321 Fundamentals of Personality (3 credits)

Prerequisite: PSYC 310, 315, previously or concurrently. This course is an introduction to theories of personality. The development, structure, and correlates of personality are presented from the viewpoint of major classical and current theories. Theories may include trait, biological, learning, and cognitive perspectives, as well as psychodynamic, humanistic, and existential perspectives. Through the examination of specific studies and the discussion of general methodological principles of personality research, emphasis is placed on the role of research in shaping and validating theories of personality.

NOTE: Students who have received credit for PSYC 326 may not take this course for credit.

PSYC 325 Fundamentals of Social Psychology (3 credits)

Prerequisite: PSYC 310, 315, previously or concurrently. This course is an introduction to social psychology. It covers the scientific study of how people's thoughts, feelings, and behaviours are influenced by the presence of others. Topics discussed may include social and self perception; attitudes and attitude change; and conformity, group processes, interpersonal attraction, prosocial behaviour, aggression, and prejudice.

NOTE: Students who have received credit for PSYC 331 may not take this course for credit.

PSYC 333 Fundamentals of Lifespan Development (3 credits)

Prerequisite: PSYC 310, 315, previously or concurrently. This course is an introduction to developmental psychology. It provides a broad survey of psychological research and theories about human development across the lifespan. It emphasizes the interaction of physical, cognitive, and socio-emotional domains in development from infancy to old age. Although the main focus of the course is on normative development, aspects of abnormal development may be covered. Specific methodological challenges and procedures relevant to developmental research are also discussed.

NOTE: Students who have received credit for PSYC 371 may not take this course for credit.

PSYC 340 Fundamentals of Psychopathology (3 credits)

Prerequisite: PSYC 310, 315, previously or concurrently. This course is an introduction to psychopathology. The course deals with major concepts and issues in the study of psychopathology. It focuses on the major models of etiology, diagnosis, prognosis,

assessment, and treatment, and presents the major disorders and five axes of the DSM system. Behavioural, cognitive, social learning, neurobiological, sociocultural, evolutionary, and psychodynamic approaches to psychopathology are covered, with an emphasis on research and methodology throughout.

NOTE: Students who have received credit for PSYC 322 may not take this course for credit.

PSYC 341 *Fundamentals of Health Psychology* (3 credits)

Prerequisite: PSYC 310, 315, previously or concurrently. This course is an introduction to the multidisciplinary field of health psychology. Issues relating to health and illness across the lifespan, including health promotion and maintenance, prevention and treatment of illness, etiology and correlates of health, illness and dysfunction, and the health care system are covered from a biopsychosocial perspective. Topics such as social support, smoking, stress, cardiovascular disease, pain, and cancer are also presented.

NOTE: Students who have received credit for PSYC 392 may not take this course for credit.

PSYC 342 *Forensic Psychology* (3 credits)

Prerequisite: PSYC 310, 315, 340. This course critically examines research and theory relating to a number of selected issues of contemporary interest in forensic psychology. Topics such as the admissibility of scientific evidence, eye-witness testimony, trauma and memory, jury selection, clinical and actuarial profiling, psychopathy, serial offenders, the validity of psychiatric examinations and lie detectors, the insanity defence, and expert testimony are presented in light of recent Canadian and American legal decisions.

NOTE: Students who have received credit for PSYC 328 or for this topic under a PSYC 398 number may not take this course for credit.

PSYC 351 *Fundamentals of Learning* (3 credits)

Prerequisite: PSYC 310, 315, previously or concurrently. This course is an introduction to theories and empirical findings concerning basic mechanisms of learning and memory in humans and non-human animals. Topics covered may include the study of learning in historical perspective, Pavlovian conditioning, operant conditioning, reinforcement, stimulus control of behaviour, types of memory, self-control and observational learning, and behavioural paradigms used in contemporary research on learning and memory.

NOTE: Students who have received credit for PSYC 346 may not take this course for credit.

PSYC 354 *Evolutionary Foundations of Psychology* (3 credits)

Prerequisite: PSYC 310, 315, previously or concurrently. This course examines the ways that evolutionary thought has influenced the study of behaviour. Fundamental evolutionary processes are introduced, and ideas about how those processes may have shaped human and animal behaviour are considered. Additional topics include biological and cognitive continuity among species, sources of individual differences in behavioural traits, evolutionarily stable strategies and states, methods of testing evolutionary hypotheses about behaviour, and the comparative method in psychology.

PSYC 355 *Fundamentals of Behavioural Neurobiology* (3 credits)

Prerequisite: BIOL 200, BIOL 201, BIOL 202, Cegep Biology 301, Cegep Biology 101-NYA, or Cegep Biology 921. This course provides an introduction to the neural mechanisms that underlie behaviour. Topics include the structure and function of neurons, neural communication, an introduction to neuroanatomy and endocrinology, and the processing of sensory information. Students also learn how complex systems, such as the sensory and motor systems, interact to produce behaviour.

NOTE: Students who have received credit for BIOL 383 or PSYC 358 may not take this course for credit.

PSYC 363 *Fundamentals of Sensation and Perception* (3 credits)

Prerequisite: PSYC 310, 315, previously or concurrently. This course introduces the physiological and psychological mechanisms of sensation and perception. Thorough treatment is given to questions of how information about the world is acquired through visual and auditory systems, and other modalities, that together is used with stored information to create an ongoing mental representation of the world. Topics such as pitch perception, colour vision, perception of movement, size and space perception, illusions, and distance are covered.

NOTE: Students who have received credit for PSYC 349 may not take this course for credit.

PSYC 364 *Fundamentals of Cognition* (3 credits)

Prerequisite: PSYC 310, 315, previously or concurrently. This course introduces cognitive psychology. Theoretical perspectives and experimental findings that inform the current understanding of how humans acquire, represent, and use knowledge are presented and discussed. Topics include attention, memory, categorization, language, and thinking. This course allows students to gain familiarity with topics and concepts necessary to pursue advanced studies in cognition.

NOTE: Students who have received credit for PSYC 352 may not take this course for credit.

PSYC 372 *Personnel Psychology* (3 credits)

Prerequisite: PSYC 310, 315, previously or concurrently. This course focuses on the contributions of psychology to several human resource considerations in organizations. Topics include personnel selection, training methods, personnel appraisal, and career development. This is an applied area of psychology, and therefore the interplay between theory, research, and application is emphasized.

NOTE: Students who have received credit for PSYC 385 may not take this course for credit.

PSYC 374 *Organizational Psychology* (3 credits)

Prerequisite: PSYC 310, 315, previously or concurrently. Understanding psychology can help organizations reach their goals, retain their workforce, and make themselves attractive to future employees and investors. This applied psychology course focuses on research and theories relevant to the behaviour of managers and employees. Topics include the history of Industrial/

Organizational(I/O) psychology; organizational development and communication; motivation, personality, and leadership;

employee satisfaction and commitment; group behaviour; negotiation and conflict resolution; and job stress.

NOTE: Students who have received credit for PSYC 386 may not take this course for credit.

PSYC 387 *Directed Research in Psychology* (3 credits)

Prerequisite: PSYC 311, 316; permission of the Department. Under the supervision of a faculty member, typically from within the Department, the student carries out an independent research project and completes a written report. The area of study is decided upon through consultation with the faculty member.

NOTE: Students who have received credit for PSYC 439 may not take this course for credit.

PSYC 420 *The Self in Social Context* (3 credits)

Prerequisite: PSYC 310, 315, 325. This course addresses a wide range of theoretical and empirical approaches to the self in contemporary social psychology. Self-esteem and self-concept are addressed in terms of social context, personal and social norms, affective experience, and interpersonal behaviour. Other topics covered may include narcissism, self-presentation, self-regulation, egocentrism, and limits to self-knowledge. Issues relating to gender, gender identity, and the development of gender roles and gender differences in the social context may also be discussed.

NOTE: Students who have received credit for PSYC 332 may not take this course for credit.

PSYC 423 *Emotion* (3 credits)

Prerequisite: PSYC 310, 315; 321 or 325. This course addresses models of emotion and individual differences in emotion and mood. The subject of how emotion influences attention, memory, evaluation, and behaviour in the social domain is also considered. In addition, particular attention is paid to a number of specific emotions.

NOTE: Students who have received credit for PSYC 334 may not take this course for credit.

PSYC 424 *Cultural Psychology* (3 credits)

Prerequisite: PSYC 310, 315; 321 or 325. This course introduces cultural and cross-cultural perspectives in psychology. It focuses on theoretical assumptions and research methods specific to these perspectives, and covers research on the ways in which culture both emerges from, and shapes basic psychological processes. Specific topics include evolution and culture; cultural differences in self-concept and value systems; acculturation, cultural contact, and adaptation; culture and cognition; and cultural variation in psychopathology, health, and therapy.

NOTE: Students who have received credit for this topic under a PSYC 398 number may not take this course for credit.

PSYC 425 *Culture, Development, and the Self* (3 credits)

Prerequisite: PSYC 310, 315; 325 or 333. This course examines cultural variations in developmental processes and outcomes, especially as they are related to the self-concept. Following a presentation of the basic concepts in the understanding of development and of culture, particular domains of development are examined according to how they vary across cultural contexts. Examples of domains include moral development, parent-child interaction, education, and suicide. The overarching goal is to describe human development as taking place within a cultural milieu, the consequences of this perspective for fundamental issues in psychology and the social sciences, and the implications for the challenges of pluralism, globalization, and public policy.

NOTE: Students who have received credit for this topic under a PSYC 398 number may not take this course for credit.

PSYC 426 *Psychometrics and Individual Differences* (3 credits)

Prerequisite: PSYC 310, 315. In this course, consideration is given to the general theory of psychological measurement and its application in the development and use of various psychometric instruments such as achievement, intelligence, aptitude, personality, and interest tests. Derived scores, norms, reliability, and validity of these instruments are discussed in the context of general measurement problems in psychology. Item analysis, signal-detection theory, diagnostics, and non-questionnaire methods may also be discussed.

NOTE: Students who have received credit for PSYC 318 may not take this course for credit.

PSYC 427 *Current Issues in Personality* (3 credits)

Prerequisite: PSYC 310, 315, 321. This course critically examines selected contemporary issues in personality psychology with a focus on recent research findings. The importance of personality in explaining behaviours, personal beliefs, developmental outcomes, and quality of life is considered.

NOTE: Students who have received credit for PSYC 327 may not take this course for credit.

PSYC 428 *Social and Cultural Advanced Issues* (3 credits)

Prerequisite: PSYC 310, 315; and permission of the Department. This course addresses the most recent advanced issues of contemporary interest in social and cultural psychology. The main topic of the course changes from one term to the next. Potential topics include social cognition, aggression and violence, experimental-existential psychology, social-cultural neuroscience, or culture and evolution. Students should consult with the Psychology Department for information on the central course topic for the current year.

NOTE: Students who have received credit for this topic under a PSYC 398 number may not take this course for credit.

PSYC 431 *Infancy* (3 credits)

Prerequisite: PSYC 310, 315, 333. This course provides a comprehensive account of psychological development in infancy. Aspects of infant development such as physical, perceptual, cognitive, verbal, emotional, and social development are covered.

Theoretical perspectives and research methods specific to the study of infant development are emphasized.

NOTE: Students who have received credit for PSYC 373 may not take this course for credit.

PSYC 432 *Childhood Development* (3 credits)

Prerequisite: PSYC 310, 315, 333. This course provides an analysis of theories pertaining to the basic processes of development during early childhood and school-age periods. A broad range of theoretical positions and methodological strategies are presented. Emphasis is on physical, cognitive, emotional, social, and personality development and the origins of individual differences in adjustment and well-being. Particular attention is given to cultural variability in development and to developmental differences between girls and boys.

NOTE: Students who have received credit for PSYC 375 may not take this course for credit.

PSYC 433 *Adolescent Development* (3 credits)

Prerequisite: PSYC 310, 315, 333. This course provides an overview of theory and research relating to multiple domains of development during adolescence. Topics include hormonal processes, physical and cognitive development, peer and parent-adolescent relations, family processes, gender roles, identity formation, sexuality, delinquency, drug abuse, suicide, and psychological disorders in adolescents. When possible, topics are considered from cross-cultural and historical perspectives.

NOTE: Students who have received credit for PSYC 379 may not take this course for credit.

PSYC 434 *Aging* (3 credits)

Prerequisite: PSYC 310, 315, 333. This course covers recent developments in the psychology of aging. Topics include age-related changes in physiology, biology, and in sensory and cognitive functioning. Particular attention is given to the effects of these age-related changes on behaviour, personality, interpersonal functioning, gender roles, coping, and adjustment. Methodological considerations in aging research are also discussed.

NOTE: Students who have received credit for PSYC 380 may not take this course for credit.

PSYC 435 *Developmental Psychopathology* (3 credits)

Prerequisite: PSYC 310, 315; 333 or 340. Using principles of developmental and clinical psychology, this survey course focuses primarily on understanding the pathways to abnormal adjustment in childhood and adolescence. The origins of deviant and competent behaviour are examined, with special attention to the multiplicity of possible risk factors and causal processes, assessment of problems and diagnoses, and the efficacy of interventions. Students are also introduced to a number of behavioural problems such as attention-deficit and hyperactivity disorder; aggression, externalizing problems, and disruptive behaviour disorders; internalizing problems, anxiety, and mood disorders; learning disabilities; mental retardation; and autism.

NOTE: Students who have received credit for PSYC 377 may not take this course for credit.

PSYC 438 *Developmental Advanced Issues* (3 credits)

Prerequisite: PSYC 310, 315; and permission of the Department. This course addresses the most recent advanced issues of contemporary interest in developmental psychology. The main topic of the course changes from one term to the next. Potential topics include social, cognitive, language, or personality development. Students should consult with the Psychology Department for information on the central course topic for the current year.

NOTE: Students who have received credit for this topic under a PSYC 398 number may not take this course for credit.

PSYC 440 *Psychopathology: Mood, Anxiety, and Personality Disorders* (3 credits)

Prerequisite: PSYC 310, 315, 340. This course presents a focused and thorough investigation of mood and anxiety disorders. Problems studied include depressive, bipolar, and anxiety disorders. Relevant somatoform (e.g. hypochondriasis) and personality (e.g. avoidant, dependent) disorders may also be discussed. Topics include contemporary theory, classification issues, and ongoing controversies, with an emphasis on current research.

NOTE: Students who have received credit for PSYC 323 may not take this course for credit.

PSYC 441 *Psychopathology: Schizophrenia and Neurocognitive Disorders* (3 credits)

Prerequisite: PSYC 310, 315, 340. This course presents a focused and thorough investigation of schizophrenia and the neurocognitive disorders. Problems studied include schizophrenia and related psychotic disorders (e.g. delusional disorder, schizoaffective disorder), as well as dementia and other disorders of aging. Relevant personality (e.g. paranoid, schizotypal) disorders may also be discussed. Topics include contemporary theory, classification issues, and ongoing controversies, with an emphasis on current research.

NOTE: Students who have received credit for PSYC 324 may not take this course for credit.

PSYC 442 *Psychopathology: Behaviour Regulation Disorders* (3 credits)

Prerequisite: PSYC 310, 315, 340. This course presents a focused and thorough investigation of psychopathology resulting from disorders of behaviour regulation. Problems studied include eating, substance use, and impulse-control disorders. Relevant sexual, gambling, and personality (e.g. borderline, antisocial) disorders may also be discussed. Topics include contemporary theory, classification issues, and current controversies, with an emphasis on current research.

PSYC 443 *Psychological Intervention Models* (3 credits)

Prerequisite: PSYC 310, 315, 340. This course presents a focused and thorough investigation of major approaches to psychological intervention. It focuses on general principles of therapy, research methods for the study of process and outcome, and the contrasts between various theories and modalities. Topics include cognitive behavioural therapy, psychodynamic psychotherapy, humanistic-existential therapy, couples and family therapy, group therapy, and motivational interviewing. Professional and ethical issues pertaining to clinical psychologists and clinical psychology research may also be discussed.

NOTE: Students who have received credit for this topic under a PSYC 398 number may not take this course for credit.

PSYC 444 Hypnosis and Dissociation (3 credits)

Prerequisite: PSYC 310, 315, 340. This course critically examines research, theory, and methodological approaches relating to a number of selected issues of contemporary interest in the area of hypnosis and dissociative phenomena. Experimental and applied research on selected topics such as recovered memory, dissociation, pain and psychosomatic disorders, social and cognitive correlates of hypnotic responses, and the issue of coercion is reviewed. The forensic and clinical uses and abuses of hypnosis are surveyed and contrasted to experimental findings.

NOTE: Students who have received credit for PSYC 330 or for this topic under a PSYC 398 number may not take this course for credit.

PSYC 445 Human Neuropsychology (3 credits)

Prerequisite: PSYC 310, 315, 355. This course is a general introduction to human neuropsychology. Topics discussed include principles of brain organizations and function, human neuroimaging and recording techniques, the contribution of clinical patients and single case studies, selected neurological disorders, and cognitive neuroscience. Emphasis is on how these issues can be meaningfully related to human behaviour, emotion, sensory perception, and higher cognitive processes.

NOTE: Students who have received credit for PSYC 359 may not take this course for credit.

PSYC 446 Stress (3 credits)

Prerequisite: PSYC 310, 315, 355; 340 or 341. This course examines how the evolutionary and adaptive stress response has come to contribute to health and pathology in modern society. The major endocrine, neurobiological, and cognitive underpinnings of the stress response are covered, and current stress research is discussed. Topics include the role of stress in aging, memory, depression, drug abuse, post-traumatic stress disorder, and the consequences of exposure to stress and adversity.

PSYC 447 Current Issues in Health Psychology (3 credits)

Prerequisite: PSYC 310, 315, 341. This course offers a focused treatment of selected advanced topics in health psychology. Potential topics include psychosocial and environmental antecedents of disease, adaptation to medical illness, approaches to improve health and manage disease, pediatric psychology, and mechanisms by which psychosocial and environmental characteristics get inside the body to influence health.

NOTE: Students who have received credit for PSYC 393 may not take this course for credit.

PSYC 448 Clinical Advanced Issues (3 credits)

Prerequisite: PSYC 310, 315; and permission of the Department. This course addresses the most recent advanced issues of contemporary interest in clinical psychology. The main topic of the course changes from one term to the next. Potential topics include neurobiology of psychopathology, functional somatic syndromes, personality and psychopathology, psychotherapy process research, or epidemiology of psychological disorders. Students should consult with the Psychology Department for information on the central course topic for the current year.

NOTE: Students who have received credit for this topic under a PSYC 398 number may not take this course for credit.

PSYC 450 Neurobiology of Drug Abuse and Addiction (3 credits)

Prerequisite: PSYC 310, 315, 355. This course focuses on the behavioural and neuronal mechanisms involved in drug abuse and addiction. It provides students with a solid conceptual foundation of how drugs of abuse affect the brain and behaviour. Topics such as the pharmacology of drugs of abuse, drug-induced neuronal plasticity in brain regions related to motivation and reward, and the interaction between biological factors and environmental events in addiction are discussed.

NOTE: Students who have received credit for PSYC 361 may not take this course for credit.

PSYC 451 Neurobiology of Learning and Memory (3 credits)

Prerequisite: PSYC 310, 315, 351, 355. This course deals with some of the major questions about the neural bases of learning and memory. A number of mechanisms subserving learning and memory are investigated, including models based on relatively simple nervous systems (e.g. conditioning in Aplysia), as well as more complex systems (e.g. the neuronal mechanisms mediating eyeblink conditioning in the rabbit and the neuronal pathways that mediate reinforcement). Other topics may include the anatomical bases of memory, including the role of the hippocampus in spatial memory, and the role of the NMDA receptor in learning and memory.

NOTE: Students who have received credit for PSYC 362 may not take this course for credit.

PSYC 452 Neurobiology of Sensation and Perception (3 credits)

Prerequisite: PSYC 310, 315, 355, 363. This course examines the relationship between the structures of the sensory systems and perception. Topics include how the structure of the eye and ear determine how and what is seen and heard, the modularity of cortical organization, segregation and integration of visual information, PDP and other models, bottom-up and top-down processing, and the reconstruction of the perceptual world.

NOTE: Students who have received credit for PSYC 365 may not take this course for credit.

PSYC 453 Neurobiology of Motivated Behaviour (3 credits)

Prerequisite: PSYC 310, 315, 355. This course examines the neural mechanisms that mediate motivated behaviour, and provides an introduction to concepts such as goal-directed behaviour and incentive motivation. Other topics include pleasure and pain; ingestive behaviour; sexual and reproductive behaviour; aggression; temperature regulation; and sleep, arousal, and biological rhythms.

NOTE: Students who have received credit for PSYC 367 may not take this course for credit.

PSYC 454 *Hormones and Behaviour* (3 credits)

Prerequisite: PSYC 310, 315, 355. This course deals with the role of hormones in integrating the activity of various neural, endocrine, and sensory systems to bring about organized, purposeful behaviour. Topics include reproductive, sexual, or environmentally adaptive systems. Treatment of material ranges from the molecular to the behavioural level.

NOTE: Students who have received credit for PSYC 369 may not take this course for credit.

PSYC 455 *Neuropharmacology* (3 credits)

Prerequisite: PSYC 310, 315, 355. This course focuses on neurochemistry and neuropharmacology relating to synaptic transmission. The chemistry and pharmacology of each major class of neurotransmitters is discussed. The pharmacological and psychological bases of drug actions are also explored, to provide an understanding of pharmacokinetics, pharmacodynamics, and pharmacotherapeutics, as they relate to issues such as CNS disease, affective disorders, and the treatment of pain. This course is primarily intended for students wishing to pursue advanced graduate work in neuroscience or clinical psychology, or for those who are seeking to enter the health professions.

PSYC 456 *Functional Neuroanatomy* (3 credits)

Prerequisite: PSYC 310, 315, 355. This course focuses on the structural and functional anatomy of brain systems underlying important cognitive functions such as motor behaviour, sensory perception, learning, and memory. Emphasis is on how comparative anatomy and different experimental techniques contribute to the understanding of brain function. Through discussion of the results of anatomical, physiological, and neuroimaging studies, students develop an in-depth knowledge of the structure and function of the human brain.

PSYC 457 *Foundations of Animal Behaviour* (3 credits)

Prerequisite: PSYC 310, 315, 355. This course explores the bases underlying the study of animal behaviour as they relate to the study of psychobiology and evolutionary psychology. Topics may include reproductive strategies, communication, the effects of early experience, learning and cognition, and the mechanisms of orientation navigation and homing in animals. Behaviour genetics, theory of evolution, basic ethological concepts, and methodological issues are also discussed.

NOTE: Students who have received credit for PSYC 396 may not take this course for credit.

PSYC 458 *Behavioural Neuroscience Advanced Issues* (3 credits)

Prerequisite: PSYC 310, 315; and permission of the Department. This course addresses the most recent advanced issues of contemporary interest in behavioural neuroscience. The main topic of the course changes from one term to the next. Potential topics include examination of the current state of scientific study of motivation or a focused look at memory consolidation. Students should consult with the Psychology Department for information on the central course topic for the current year.

NOTE: Students who have received credit for this topic under a PSYC 398 number may not take this course for credit.

PSYC 460 *Vision* (3 credits)

Prerequisite: PSYC 310, 315, 363. This course builds on the introduction to the visual system developed in PSYC 363. Topics are examined from the psychophysical, computational, and physiological perspectives and may include advanced treatment of colour, motion, and texture perception; spatial vision; object, face, and scene recognition; eye movement control; flow fields; attention; and perception-in-action.

PSYC 461 *Computational Modelling of Human Cognition* (3 credits)

Prerequisite: PSYC 310, 315; 363 or 364. This course reviews the history of the view of mind as machine and the various computational metaphors that have helped in understanding the particular kind of computational device the brain is. The course explores the ways in which computational models of mind are implemented and can be tested against psychological theories and data. Students learn how to construct simplified representations of reality based on rule-based processes to recreate aspects of human cognition.

PSYC 462 *Memory and Attention* (3 credits)

Prerequisite: PSYC 310, 315, 364. This course provides an advanced introduction to theories and empirical research on memory and attention. Topics include various memory systems and mechanisms, including long- and short-term memory, working, episodic, and semantic memory. The course also addresses research on attentional processes such as switching, selective, and divided attention.

PSYC 463 *Concepts and Categories* (3 credits)

Prerequisite: PSYC 310, 315, 364. This course provides an advanced introduction to theories of conceptual representation and processes of categorization. It reviews the empirical research in these fields, including studies with normal and impaired populations.

PSYC 464 *Judgment and Decision Making* (3 credits)

Prerequisite: PSYC 310, 315, 364. This course is an introduction to the cognitive and affective processes involved in evaluating options and choosing between them. Major theories and empirical studies are reviewed from an interdisciplinary perspective that includes both cognitive science and neuroscience and that draws on research carried out on humans and on other animals.

PSYC 465 *Language* (3 credits)

Prerequisite: PSYC 310, 315, 364. This course covers the cognitive, developmental, and social aspects of language and human communication. Topics may include linguistic theory, language acquisition, language comprehension and production, the biological bases of language, reading, speech perception, and second-language development.

NOTE: Students who have received credit for PSYC 395 may not take this course for credit.

PSYC 466 Cognitive Development (3 credits)

Prerequisite: PSYC 310, 315; 333 or 364. This course provides an advanced introduction to the development of children's thinking, from infancy through the elementary-school years. The goal of the course is to familiarize students with recent theory and research on the cognitive development in children. Topics include the development of language, perception, concept, social cognition, and memory.

PSYC 467 Learning (3 credits)

Prerequisite: PSYC 310, 315, 351. This course is a continuation of PSYC 351; it presents a more focused and thorough treatment of more advanced topics in learning. These may include developmental aspects of learning, animal memory and cognition, human applications of conditioning principles, biological constraints on learning, and the physiology of learning and memory. Different sections of the course may cover different sets of topics.

NOTE: Students who have received credit for PSYC 347 may not take this course for credit.

PSYC 468 Cognitive Science Advanced Issues (3 credits)

Prerequisite: PSYC 310, 315; and permission of the Department. This course addresses the most recent advanced issues of contemporary interest in cognitive science. The main topic of the course changes from one term to the next. Possible topics include memory, attention, concept formation, category representation, decision-making, reasoning, language, intelligence, creativity, skill acquisition, cognitive and language development, or the neural bases of cognitive functioning. Students should consult with the Psychology Department for information on the central course topic for the current year.

NOTE: Students who have received credit for this topic under a PSYC 398 number may not take this course for credit.

PSYC 483 Directed Readings in Psychology (3 credits)

Prerequisite: PSYC 311, 316; permission of the Department. This course is designed for the advanced student wishing to do independent, individually supervised literature research on a specific topic in psychology. This research culminates in a written report. Students should have a well-defined topic and a faculty supervisor, typically selected from within the Psychology Department, before registering for this course.

NOTE: Students who have received credit for PSYC 436 may not take this course for credit.

PSYC 485 Specialization Project (6 credits)

Prerequisite: PSYC 311, 316; permission of the Department. This seminar provides students with experience in the design, conduct, analysis, and reporting of independent research in the major areas of psychology. The research is undertaken under the supervision of a faculty member.

NOTE: Students who have received credit for PSYC 400 may not take this course for credit.

PSYC 487 Advanced Directed Research in Psychology (3 credits)

Prerequisite: PSYC 310, 315; 485 or 495; and permission of the Department. This course is for students who have completed a specialization project or honours thesis and wish to conduct an additional research project. Under the supervision of a faculty member, typically from within the Department, the student carries out an independent research project and completes a written report. The area of study is decided upon through consultation with the faculty member.

PSYC 490 Honours Seminar Topics (3 credits)

Prerequisite: PSYC 311, 316; permission of the Department. The aim of this seminar is to provide a forum for the discussion of topics relating to current knowledge, theory, and methods in psychology, and to help students achieve a critical understanding of psychology. Topics may include learning, interpersonal relations, human development, perception, cognition, subjective well-being, or language. Emphasis is on current theory as it relates to selected topics within psychology.

NOTE: Students who have received credit for PSYC 421 may not take this course for credit.

PSYC 491 Honours Seminar Issues (3 credits)

Prerequisite: PSYC 311, 316; permission of the Department. The aim of this seminar is to provide a forum for the discussion of issues relating to current knowledge, theory, and methods in psychology, and to help students achieve a critical understanding of psychology. Issues may include social and developmental processes, motivation, emotion, or the biological bases of behaviour. Selected issues from these areas are discussed from theoretical perspectives specific to given phenomena.

NOTE: Students who have received credit for PSYC 422 may not take this course for credit.

PSYC 495 Honours Thesis (6 credits)

Prerequisite: PSYC 311, 316. Open to final-year honours students with permission of the Department. This course requires the student to propose and conduct a study, and submit a thesis written according to the APA format. Students are also required to give an oral presentation in class on their proposal and on their final thesis. The work is supervised by a faculty member selected by the student, typically from within the Psychology Department.

NOTE: Students who have received credit for PSYC 430 may not take this course for credit.

Faculty

Chair

NAFTALI COHN, PhD *University of Pennsylvania*; Professor

Distinguished Professors Emeriti

FREDERICK BIRD, PhD *University of California, Berkeley*

MICHEL DESPLAND, ThD *Harvard University*

JACK LIGHTSTONE, PhD *Brown University*

SHEILA McDONOUGH, PhD *McGill University*

MICHAEL OPPENHEIM, PhD *University of California, Santa Barbara*

T.S. RUKMANI, PhD *DLitt University of Delhi*

Professors

LYNDA CLARKE, PhD *McGill University*

LORENZO DITOMMASO, PhD *McMaster University*

RICHARD FOLTZ, PhD *Harvard University*

NORMA JOSEPH, PhD *Concordia University*

LESLIE ORR, PhD *McGill University*

NORMAN RAVVIN, PhD *University of Toronto*

Hindu Studies Chair

T.B.A.

Associate Professors

CARLY DANIEL-HUGHES, ThD *Harvard University*

MARC DES JARDINS, PhD *McGill University*

Quebec and Canadian Jewish Studies Chair

IRA ROBINSON, PhD *Harvard University*; Professor, Provost's Distinction

Senior Lecturer

MARC LALONDE, PhD *Concordia University*

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus

Annex FA, Room: 101

514-848-2424, ext. 2065

concordia.ca/artsci/religions-cultures

Department Objectives

The Department of Religions and Cultures is dedicated to the academic study of various faiths and of social and cultural phenomena affected by religions. The curriculum includes the comparative study of many religious traditions of the world. At both the undergraduate and graduate levels, students are encouraged to develop an understanding of at least two religious traditions. Whatever the student's special focus, the informed appreciation of the beliefs and values of other cultures is considered an essential dimension of education for today's world.

Programs

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

Students seeking admission to the honours program may apply either for direct entry on the University application form or, once in the program, to the departmental honours advisor normally following the completion of 30 credits.

The Department of Religions and Cultures requires a statement of intent with the application for honours programs.

60 BA Honours in Religions and Cultures

- 12 In a language related to thesis; or in a related discipline such as Anthropology, Classics, English Literature, History, Philosophy, Sociology, Women's Studies
6 Chosen from RELI 209³, 210³, 214³, 215³
21 From area of primary concentration*
6 From area of secondary concentration*
6 RELI elective credits at the 300 or 400 level
3 RELI 409³
6 RELI 410⁶

*See areas of concentration.

42 BA Major in Religions and Cultures

- 6 Chosen from RELI 209³, 210³, 214³, 215³
18 From area of primary concentration*
6 From area of secondary concentration*
9 RELI elective credits at the 300 or 400 level
3 RELI 409³

*See areas of concentration.

24 Minor in Religions and Cultures

- 6 Chosen from RELI 209³, 210³, 214³, 215³
18 RELI elective credits chosen in consultation with the departmental advisor, excluding RELI 209, 210, 214, and 215

60 BA Honours in Judaic Studies

- 12 Chosen from RELI 220³, 301³, 326³, 327³, 328³
9 Hebrew language, typically chosen from HEBR 210⁶, 241³, 242³ and RELI 401³
Students who demonstrate proficiency in Hebrew may substitute religion courses at the 300 or 400 level approved by the undergraduate advisor.
3 Chosen from RELI 209³, 210³, 214³, 215³
27 Electives chosen from courses in Judaism at the 200, 300, or 400 level
It is recommended that students take at least one 400-level course. Up to 12 credits may be substituted with courses in a related tradition and 12 credits with courses in a related language such as Hebrew, Aramaic, or Yiddish, for a maximum of 15 credits combined.
3 RELI 409³
6 RELI 410⁶

42 BA Major in Judaic Studies

- 12 Chosen from RELI 220³, 301³, 326³, 327³, 328³
9 Hebrew language, typically chosen from HEBR 210⁶, 241³, 242³ and RELI 401³
Students who demonstrate proficiency in Hebrew may substitute religion courses at the 300 or 400 level approved by the undergraduate advisor.
3 Chosen from RELI 209³, 210³, 214³, 215³
15 Electives chosen from courses in Judaism at the 200, 300, or 400 level. It is recommended that students take at least one 400-level course. Up to six credits may be substituted with courses in related traditions and related languages such as Hebrew, Aramaic, or Yiddish.
3 RELI 409³

24 Minor in Judaic Studies

- 9 Chosen from RELI 220³, 301³, 326³, 327³, 328³
3 Chosen from RELI 209³, 210³, 214³, 215³
12 Electives chosen from courses in Judaism at the 200, 300, or 400 level. Up to six credits may be substituted with courses in related traditions and related languages such as Hebrew, Aramaic, or Yiddish.

42 BA Major in Southern Asia Studies

- 6 HIST 261³; RELI 215³
3 Chosen from any relevant course in the Department of History
3 Chosen from any relevant course in the Department of Political Science
6 Chosen from any relevant courses in the Department of Religions and Cultures
24 Chosen from relevant courses in any department including but not limited to History; Religions and Cultures; Political Science; Classics, Modern Languages and Linguistics; Economics; English; Geography, Planning and Environment; Sociology and Anthropology; the Faculty of Fine Arts; and the John Molson School of Business. Students may also request credit for Southern Asia-related courses (including languages) taught at other Quebec universities.

24 Minor in Southern Asia Studies

- 6 HIST 261³; RELI 215³
3 Chosen from any relevant course in the Department of History, Political Science, Economics or English
6 Chosen from any relevant courses in the Department of Religions and Cultures
9 Chosen from relevant courses in any department (see above)

- 24 Minor in Iranian Studies**
12 Chosen from RELI 227³, 305³, 306³, 313³, 317³, 318³
12 Chosen from any courses related to Iran in various departments at Concordia approved by the undergraduate advisor, including those not already taken at the first level of requirement. Examples of courses offered at various times include Pahlavi and other ancient Iranian languages, Modern Persian, Iranian Mythology, Manichaeism, Avesta, and Classical Persian Music. Students may also request credit for Iran-related courses taught at other Quebec universities.
- 30 Certificate in Iranian Studies**
18 Chosen from RELI 227³, 305³, 306³, 313³, 317³, 318³
12 Chosen from any courses related to Iran in various departments at Concordia approved by the undergraduate advisor, including those not already taken at the first level of requirement. Examples of courses offered at various times include Pahlavi and other ancient Iranian languages, Modern Persian, Iranian Mythology, Manichaeism, Avesta, and Classical Persian Music. Students may also request credit for Iran-related courses taught at other Quebec universities.
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Areas of Concentration

A. Asian Religions (18 credits)

- 6 Chosen from RELI 224³, 225³, 226³, 360³, 361³, 362³
12 Chosen from any courses on the subject of Asian religions, including Islam. This may include courses not already taken from the first level of requirement. It is recommended that students take at least one 400-level course.

NOTE: With permission of the advisor, Major in Religions and Cultures students concentrating in Asian religions may count up to six credits of a related language, such as Chinese or Sanskrit. Honours students concentrating in Asian religions may also count an additional six credits of a related language toward their program.

B. Christianity (18 credits)

- 6 RELI 223³, 302³
12 Chosen from any courses on the subject of Christianity. It is recommended that students take at least one 400-level course.

NOTE: With permission of the advisor, Major in Religions and Cultures students concentrating in Christianity may count up to six credits of a related language, such as Greek, Latin, or Coptic. Honours students concentrating in Christianity may also count an additional six credits of a related language toward their program.

C. Judaism (18 credits)

- 9 Chosen from RELI 220³, 301³, 326³, 327³, 328³
9 Chosen from any courses on the subject of Judaism. This may include courses not already taken from the first level of requirement. It is recommended that students take at least one 400-level course.

NOTE: With permission of the advisor, Major in Religions and Cultures students concentrating in Judaism may count up to six credits of a related language, such as Aramaic, Yiddish, or additional Hebrew. Honours students concentrating in Judaism may also count an additional six credits of a related language toward their program.

D. Women, Gender, and Sexuality (18 credits)

- 3 Chosen from RELI 233³, 380³
15 Chosen from any Religion courses on the subject of women, gender, body, sexuality, or food. This may include a course not already taken from the first level of requirement. It is recommended that students take at least one 400-level course.

E. Islam (18 credits)

- 6 Chosen from RELI 224³, 316³, 319³
12 Chosen from any courses on the subject of Islam. This may include a course not already taken from the first level of requirement. It is recommended that students take at least one 400-level course.

NOTE: With permission of the advisor, Major in Religions and Cultures students concentrating in Islam may count up to six credits of a related language, such as Arabic or Persian. Honours students concentrating in Islam must take at least six credits of Arabic and may also count an additional six credits of Arabic or another language related to Islam toward their program. Students who demonstrate competency in Arabic by a written examination may substitute Religion courses approved by the departmental advisor.

Courses

RELI 209 The Religious Imagination (3 credits)

This course explores the conceptual elements that underlie the religious experience. These elements include the notion of the sacred, beliefs, cosmologies and myths, the origins and understanding of evil, ethics and salvation.

NOTE: Students who have received credit for RELI 211 may not take this course for credit.

RELI 210 Religion in Practice (3 credits)

This course focuses on the day-to-day practice of religious traditions. Included are the expression of religious experiences through art, music, and scripture; transmission of these religious expressions through ritual, worship and mystical/ecstatic practices; and the construction and maintenance of different types of religious authority and communal identities.

NOTE: Students who have received credit for RELI 211 may not take this course for credit.

RELI 214 *Religions of the West* (3 credits)

This course surveys the history, doctrines, institutions, and practices of religions that arose in Western Asia, including Judaism, Christianity, and Islam. The course examines contemporary forms of religious life in those parts of the world where these traditions have spread, as well as indigenous religions. The course explores the religious activities and experiences of both women and men within these various traditions.

NOTE: Students who have received credit for RELI 213 may not take this course for credit.

RELI 215 *Religions of Asia* (3 credits)

This course surveys the history, doctrines, institutions, and practices of religions that have arisen in and spread throughout Asia, including Hinduism, Buddhism, and the religions of China and Japan. The course explores the religious activities and experiences of both women and men within these traditions.

NOTE: Students who have received credit for RELI 213 may not take this course for credit.

RELI 216 *Encountering Religions* (3 credits)

This course serves as an introduction to some of the religions of today's world, and explores several contemporary contexts where people of diverse religious backgrounds come into contact with one another.

NOTE: Students who have received credit for this topic under a RELI 298 number may not take this course for credit.

RELI 220 *Introduction to Judaism* (3 credits)

This course examines the continuities and changes in Jewish society, institutions, concepts, and traditions from ancient times to the present. It also provides an introduction to Jewish practice and belief in its contemporary diversity, including a survey of the rituals, symbols, and ceremonies of Jews today.

NOTE: Students who have received credit for RELI 222 may not take this course for credit.

RELI 223 *Introduction to Christianity* (3 credits)

This course provides an introductory survey of key developments and enduring structures in the historical evolution of Christianity. It examines the variety of expressions of faith embodied in different churches, and traces the ways in which beliefs, institutions, symbols, and rituals have in the past and continue today to carry forward the Christian tradition as a world religion in a variety of cultural contexts.

RELI 224 *Introduction to Islam* (3 credits)

This course explores the religious tradition of Islam through the beliefs and practices of the vast number of Muslims scattered throughout the world — in the Middle East, South and Southeast Asia, North America, and other places. It examines the scriptures and common rituals or "pillars" of the religion, as well as expressions of life and culture in the past and present such as the law (shariah), mystical orders, and the arts.

RELI 225 *Introduction to Hinduism* (3 credits)

This course surveys Hinduism in its diverse history, sects, schools of thought, sacred texts, spiritual practices, and contemporary interpretations. Students focus on several prominent dimensions of the tradition, including the Hindu temple, mysticism and metaphysics in the Upanishads, karma and rebirth, dharma (religious duty and the cosmic/social order), moksha (liberation), gender and caste, devotional traditions, and narrative literatures.

RELI 226 *Introduction to Buddhism* (3 credits)

This course introduces students to the diversity of forms of Buddhism that have emerged in history and are practised today. It examines those aspects that are shared in common by Buddhists all over the world, including reverence for the Buddha, support of the monastic order, and adherence to the Buddha's teachings. The course explores the ways in which these ideals and beliefs are expressed through such Buddhist practices as worship, study, pilgrimage, and meditation.

RELI 227 *Introduction to Iranian Civilization* (3 credits)

Iran has played a central role in world history, giving rise to Zoroastrianism, Manichaeism, and the Baha'i faith, as well as numerous minor sects. Iranian culture has also played a major role in informing and transforming Judaism, Christianity, Buddhism and Islam. This course covers the long history of Iranian civilization and its influence on peoples from the Mediterranean world to South and East Asia in the realms of religion, literature, architecture, and the arts.

NOTE: Students who have received credit for RELI 412 or for this topic under a RELI 298 number may not take this course for credit.

RELI 230 *Judaism and Popular Culture* (3 credits)

This course explores examples of American popular culture — film, television, comedy, graphic novels — from the early-20th to the early-21st century that touch on Jews and Judaism. The course reveals ways in which Judaism has developed in the past century and the nature of a uniquely Jewish current that has developed a life of its own in the sphere of popular culture.

NOTE: Students who have received credit for this topic under a RELI 298 number may not take this course for credit.

RELI 231 *Jews and Food* (3 credits)

This course introduces students to the link between Jews and food. It explores the interrelationship between sacred texts, cookbooks, film, fiction, and current theories on ethnic "foodways." The study of foodways is a growing field that yields insight into the patterns of group formation, cultural development and communal identity. Judaism provides a good case study of these variables.

NOTE: Students who have received credit for this topic under a RELI 298 number may not take this course for credit.

RELI 233 *Introduction to Women and Religion* (3 credits)

This introduction to the particular problems and issues in the study of women and religion uses case studies from various religious traditions. The course presents a survey of the different levels of participation, the complex ritual activities, and the intriguing divine imagery associated with women that are found in many religious traditions. Questions pertaining to the contemporary feminist discourse on such topics as witchcraft, matriarchy, and goddess religions are also explored.

RELI 235 (*also listed as HIST 235*)

The Holocaust (3 credits)

Beginning with a discussion of Jewish communities in Europe and America before 1933, this course traces the evolution of anti-Semitism, nationalism, and racism, the rise of Hitler and the Nazi movement, the shaping of Nazi ideology, the growing demonization of the victims of the Holocaust and the genocide against them in their various countries, resistance by the victims, and the parts played by bystanders in the outcome of the Holocaust.

NOTE: Students who have received credit for HIST 235, HISW 235 or RELI 338 may not take this course for credit.

RELI 298 *Selected Topics in Religion* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

RELI 300 *Cults and New Religious Movements in North America* (3 credits)

This course takes a sociological and historical approach towards understanding new religious movements (NRMs), popularly known as "cults." The course examines the reasons for their controversial status in society, and undertakes a survey of the beliefs, rituals, leadership, membership, recruitment strategies, and social organization of a number of specific NRMs.

NOTE: Students who have received credit for RELI 217 or for this topic under a RELI 298 number may not take this course for credit.

RELI 301 *The Hebrew Bible* (3 credits)

This course introduces students to one of the great works of world literature, the Hebrew Bible. It familiarizes the student with the major genres of the Hebrew Bible and with the history, culture, and religion of ancient Israel. Particular attention is given to modern scholarly methods of interpretation, to the literary dimensions of the Bible, and to the subsequent development of Jewish interpretation and practice that builds on the Bible.

RELI 302 *Biblical Studies II: Christian Origins* (3 credits)

A critical survey of Christian origins, this course focuses on New Testament literature and considers historical setting, history of text, religious and cultural significance. Attention is paid to extra-canonical literature and other relevant sources.

RELI 305 *Classical Persian Literature* (3 credits)

Readings of selected poetry and prose allow students to explore the language, thought, and culture of Iranian civilization. All readings are in English translation; no knowledge of Persian required.

NOTE: Students who have received credit for RELI 413 or for this topic under a RELI 398 number may not take this course for credit.

RELI 306 *Religion and Society in Contemporary Iran* (3 credits)

Heir to one of the world's great civilizations, Iran today is often viewed negatively by the West. However, the reality of life in the Islamic Republic differs in many ways from popular conceptions. This course explores the roots, development and current situation of a uniquely modern and dynamic contemporary Muslim society. Topics include gender relations, political theory, contemporary literature and the arts.

RELI 307 *Christian Mystics* (3 credits)

Based on the study of significant texts, this course offers a historical and sociological exploration of the range of mystical and ecstatic experiences within the Christian tradition. Special consideration is given to the role which gender plays in understanding these experiences.

RELI 308 *Christianity in the United States: History and Practice* (3 credits)

This course introduces students to the history of Christianity in the United States, from the 1630s to the present, with an emphasis on the modern period. It traces how the U.S. has become the most religious country in the developed world and explores how Americans understand and practice Christianity. It covers key historical moments and movements, including Puritanism, revivals and awakenings, missions, abolition and slavery, fundamentalism, anti-Communism and Pentecostalism.

NOTE: Students who have received credit for this topic under a RELI 398 number may not take this course for credit.

RELI 310 *Self and Other: Identity and Ethical Development* (3 credits)

This course considers ethical issues arising in the context of personal and interpersonal relations, families and friendships, and health and medical care. These issues are discussed in relation to traditional and contemporary moral perspectives, both religious and non-religious. Topics covered may vary from year to year, but may include discussions of conscience and career, privacy, sexual relations, harassment, substance abuse, abortion, euthanasia, and gay and lesbian relations.

RELI 311 *Global Christianity* (3 credits)

Christianity's "centre" has shifted to the global south. This course examines contemporary Christianity in its many forms around the world. It pays special attention to how people, ideas and ministries cross borders and the implications of globalization for Christian practice and theology. Topics covered may include televangelism and media, Internet religion, pilgrimage, immigration, refugees and "transplanted" religion, mega-church networks, post-colonial missions and "reverse" missionaries, Pentecostalism and the rise of African and Asian Independent Churches.

RELI 312 *Justice and Social Conflict in a Globalized World* (3 credits)

This course considers ethical issues arising in the context of social, legal, and political relations. These issues are discussed in relation to both traditional and contemporary moral perspectives, both religious and non-religious. Topics covered typically include discussions of social and economic inequality, welfare, poverty, just punishment, business ethics, public ethics, economic development, and sustainable development.

RELI 313 *Zoroastrianism* (3 credits)

Zoroastrianism, an ancient but little-known faith now counting no more than a few hundred thousand practitioners living mainly in India and Iran, is one of the most significant traditions in the history of religions. It provided a world-view and ethical framework later adopted by Judaism, Christianity, and Islam and shares significant common roots with Hinduism. The Zoroastrians of India — the Parsis — have continued to play an influential role in shaping that country's development in modern times. This course covers the 3,000-year history of Zoroastrianism, including controversies surrounding its origins, its contributions to other religions, its eventual decline and the surviving global Zoroastrian diaspora of contemporary times.

RELI 315 *Muslim Cultures in Southern Asia* (3 credits)

About one-third of the world's Muslims live in India, Pakistan, or Bangladesh, making Southern Asia the world region with the largest proportion of Muslims. Yet many aspects of Muslim belief and practice in these countries have a distinctively South Asian flavour and in some cases derive from regional cultural traditions. This course looks at the history of Muslim presence in Southern Asia, including its extensive political and cultural impact from the seventh century to the present, and investigates the complexities of communal identity over the course of that history. The role of Sufism and Muslim contributions to South Asian literature, art, architecture, and music are also explored.

RELI 316 *Classical Islam* (3 credits)

The course explores the various aspects of Muslim civilization from its initial spread from Arabia to Spain, sub-Saharan Africa, India, and China, up to the age of the Ottoman, Safavid, and Mughal empires in the 16th and 17th centuries. Special attention is given to the emergence of schools of law, theology, philosophy, and mystical orders, as well as the literature, arts, and architecture of diverse Muslim societies.

RELI 317 *Sufism* (3 credits)

The course explores the emergence and development of Islamic mysticism, beginning with pious individuals in the eighth century and coalescing into institutional forms by the 10th. Attention is given to the teachings of key mystical figures, the Sufi orders, and the social role of Sufism. Sufi poetry, music, and other forms of devotion and practice are studied in the contexts of diverse Muslim societies over the past 1,000 years.

NOTE: Students who have received credit for this topic under a RELI 379 number may not take this course for credit.

RELI 318 *Shiite Islam* (3 credits)

This course explores the history and ideas of Shiism, from the inception of the movement to the present. The various sects are introduced and studied, including the Twelvers, Ismailis, Druze, and Alawites. Shiite doctrines related to esoterism, quietism, and messianism are considered in comparison with other religions, while study of the modern period treats subjects such as theocracy, political activism, and martyrdom.

RELI 319 *Modern Islam* (3 credits)

This course surveys some of the questions raised by modernity for Muslims and the various responses Muslims have sought to formulate and put into practice. Issues addressed may include government, law, gender, relations with the West, and religious authority.

RELI 320 *The Making of Christianity* (3 credits)

This course examines how Christianity emerged from a small, splinter movement within Judaism to become the religion of the Roman Empire. It traces the various debates that gave shape to this new movement, stressing the diverse perspectives evident in early Christian sources. Among the topics considered are Jewish and Christian relations, martyrdom and persecution, prophecy and visionary experience, orthodoxy and heresy, gender, sexuality and the body, canon and religious authority, as well as sacred space.

NOTE: Students who have received credit for RELI 303 or for this topic under a RELI 498 number may not take this course for credit.

RELI 321 *The Medieval Christian World* (3 credits)

This course examines one of the more significant periods in the development of Christianity, that of the Medieval West. Among the topics considered are the papacy, the growth of monasticism and the friars' movements, mysticism, the Crusades, the emergence of scholastic learning and the universities, and forms of popular religiosity, such as devotion to saints and pilgrimages.

NOTE: Students who have received credit for this topic under a RELI 398 number may not take this course for credit.

RELI 322 *Christian Reformers and the Rise of Modernity* (3 credits)

This course explores Christianity's central role in the creation of modernity from the 16th to the 19th centuries, illustrating how this period of unprecedented discovery and change forever altered the shape of the Christian faith. Topics under consideration include European colonialism, Christian missions to the New World, the Protestant Reformation, the birth of the nation state, the Enlightenment, emergence of capitalism, and the rise of modern science.

NOTE: Students who have received credit for this topic under a RELI 398 number may not take this course for credit.

RELI 324 *On the Margins of Christianity* (3 credits)

This course examines marginal forms of Christianity that have found themselves ignored, excluded, or suppressed by more mainstream Christian groups and institutions. Topics may include "heretical," apocalyptic, millenarian, and charismatic movements. The course considers the practices, self-understanding, and worldviews of marginal forms of Christianity within their particular cultural, political, and historical contexts.

RELI 325 *Leaders, Rebels and Saints* (3 credits)

This course, which varies in focus from year to year, investigates the lives of controversial or influential women and men in the history of different religious traditions. Going beyond mere biography, the course situates particular figures within their social and cultural contexts, while dealing with how such prominent figures were viewed, portrayed, and used by others. Specific topics for this course are stated in the Undergraduate Class Schedule; examples are Moses, Jesus and Mary.

RELI 326 *Ancient Judaism* (3 credits)

This course is a survey of Jewish religion, culture, and literature in its formative period, from the fifth century Before the Common Era to the 10th century of the Common Era. The focus is on key moments, movements, and cultural motifs that demonstrate the ways in which Jewish groups were both part of their larger cultural world and distinctive; both divided into a variety of groups, but also united.

RELI 327 *Medieval Jewish Thought and Institutions* (3 credits)

This course examines the intellectual, religious, and social history of selected Jewish communities during the Middle Ages. Both internal Jewish developments and changing Jewish relations with their non-Jewish neighbours are considered.

RELI 328 *Modern Judaism* (3 credits)

This course surveys the major historical events, sociological and political forces, and intellectual currents which shaped Judaism in the modern period as well as the ways that Jewish communities responded to these forces. Among the topics explored are Emancipation, forms of religious adjustment, anti-semitism, the experience of Jewish communities in Russia and North America, the Holocaust, and Zionism and the state of Israel.

RELI 329 *Israel: Religion and State* (3 credits)

This course studies the emergence and development of the state of Israel, from the beginnings of the Zionist movement to the present time. It also explores the major political, social, and intellectual developments in both the pre- and post-state periods. The role of Judaism within the changing state is a primary focus.

RELI 331 *Literature and the Holocaust* (3 credits)

Religious, historical, literary, and political contexts have been applied to come to terms with the events of the Holocaust. All of these are relevant as students read important and provocative novels dealing with such issues as ethics, the relationship between art and history, the use of humour and popular cultural forms, as well as the way that storytelling helps direct our understanding of events that are often said to be incomprehensible. The wider impact of fiction dealing with the Holocaust on the popular media, including film, CD-ROMs, video, and news reporting, is also considered.

NOTE: Student who have received credit for this topic under a RELI 398 number may not take this course for credit.

RELI 332 *Canadian Jewish Literature* (3 credits)

This course explores the Jewish voice in Canadian literature which can be seen to be the first opening toward a multicultural tradition in this country. Writers such as A.M. Klein, Mordecai Richler, Henry Kreisel, and Leonard Cohen created an English-language tradition of Jewish writing that is varied, provocative, and lively. Students look at novels, short stories, some poetry, memoir, and criticism. Students also consider non-Jewish authors, such as Gwethalyn Graham and Mavis Gallant, who were among the first to write about Jewish characters for an English-speaking Canadian audience. This course allows students to consider issues related to Canadian identity and culture, ethnic studies, and multiculturalism alongside literary questions.

RELI 333 *Stories in Judaism* (3 credits)

In this course, stories are read from the entire scope of Jewish history — from the Bible to modern Jewish film and fiction. Each of these stories will reveal something about the cultures from which they emerged — their fantasies about themselves and about others; about humans, not-so-humans, and God; about life and death and everything in between. Taken together, these stories tell the story of Judaism, in all its inexhaustible variety and colour.

NOTE: Students who have received credit for this topic under a RELI 398 number may not take this course for credit.

RELI 334 *Introduction to Canadian Jewish Studies* (3 credits)

This course introduces the history of the Canadian Jewish community and the themes, personalities, and media which have contributed to Canadian Jewish culture and life. Students explore historical texts, novels, films, and museums in order to gain a sense of the particularity of Jewish culture in Canada and its place in the Canadian multicultural ethic. The relationship of Canadian Jewry to communities in the United States, Europe, and Israel, and to its own past, is also examined.

RELI 336 *Jews in Arab Lands* (3 credits)

This course studies the social and religious life of the diverse communities of Jews in Arab lands. Topics may include Jewish life under Islam; the experience of expulsions and dispersions; North African and Middle Eastern Jewish traditions; Sephardi life in the Americas, Europe, and Israel. In addition, some of the philosophical, Halakhic, biblical, and mystical works of Sephardi Jews are examined.

RELI 337 *The Dead Sea Scrolls* (3 credits)

The discovery of the Dead Sea Scrolls changed our understanding of early Judaism and shed new light on Christian origins. The Scrolls preserve the oldest copies of the books that would come to be included in the Hebrew Bible, plus hundreds of other Jewish writings of the Hellenistic and early Roman eras: apocalypses, biblical interpretation and apocryphal stories, community rules, hymns and poems, legal and liturgical texts, wisdom literature, and much more. This course provides students with a basic introduction to the Dead Sea Scrolls — the texts, the community, and their ideas — examined in the larger context of early Judaism.

NOTE: Students who have received credit for this topic under a RELI 498 number may not take this course for credit.

RELI 339 *The Impact of the Holocaust on Religious Thought* (3 credits)

This course examines the ramifications of the Holocaust in Jewish and Christian thought. Issues discussed include the problem of evil; suffering; the election of Israel; God's relation to the course of human events.

RELI 340 *The Veda, Upanishads, and Religion in Ancient India* (3 credits)

This introduction to the religious concepts, practices, and wisdom of ancient India is based on the literature of the Vedic period, including the Upanishads. The course examines the contribution of various aspects of the Vedic tradition to the development of Hinduism, and explores the interaction among religions in the ancient period.

RELI 343 *Yoga in History, Thought, and Practice* (3 credits)

This course examines the history, thought, and practices of Yoga in their religious and cultural contexts. In the modern West, Yoga has become popular as a secular form of exercise. However, as this course shows, the diverse Yoga traditions of India have also involved sophisticated analyses of the mind and systems of meditation. Intrinsic to no single religion, Yoga has had roles in most South Asian traditions, including Hinduism, Buddhism, Jainism, and Sufism or Islamic mysticism. The course surveys this rich history, and the various forms of meditative and physical discipline Yoga has entailed.

NOTE: Students who have received credit for this topic under a RELI 398 number may not take this course for credit.

RELI 344 *Hindu Myth and Narrative: the Epics and Puranas* (3 credits)

This course approaches Hinduism through its narrative literature, especially the great epics (the *Mahabharata* and *Ramayana*) and mythological texts (*Puranas* — the "Ancient Books"). Through stories of gods, devotees, villains, and heroes, the course explores the development of significant themes in the Hindu tradition, from ethics and philosophy to asceticism and devotion. An important focus of the course is the enduring cultural significance of myth and the epics, as retold through the ages in a variety of languages, cultural contexts, and media, including classical and vernacular texts, the oral tradition, drama, dance, and cinema.

RELI 346 *Gandhi, Colonialism, and Beyond* (3 credits)

This course concerns Hindu traditions in the modern world, beginning with the period of colonial British rule in South Asia. Students examine the writings and historical contexts of influential Hindu reformers, intellectuals, and activists, including Ram Mohun Roy, Dayananda Sarasvati, Swami Vivekananda, the Tagores, V.D. Savarkar, and especially Mahatma Gandhi. Issues of focus include the history of the modern idea of Hinduism, responses to European thought and institutions (including Christianity), Hindu understandings of modernity, social change and reform, religious nationalism, contemporary gurus and their transnational movements, and Hinduism in the diaspora.

RELI 347 *Religion and the Arts in South and Southeast Asia* (3 credits)

This course is an introduction to the religious art of South and Southeast Asia, including an examination of Hindu, Buddhist, and Islamic architecture, sculpture, painting, and performing arts. The course examines the ways in which sacred art is related to myth and symbol, religious values and goals, ritual, religious experience, and social and political realities.

RELI 348 *Religion and Society in South and Southeast Asia* (3 credits)

This historical and sociological examination of religion's impact on and intersection with the structures of South and Southeast Asian society, explores such issues as caste and class, gender and family relations, links between religion and the state, and relations between Hindu, Buddhist, and Muslim communities.

RELI 350 *Theravada Buddhism* (3 credits)

This course examines the early history, doctrine, institutions, and practices of Buddhism in India, and follows the development of Theravada Buddhism in the countries of Southeast Asia up to the present day.

RELI 351 *Jewish Eastern Europe* (3 credits)

This course takes into account the arrival of large numbers of Western European Jews in Poland and the Russian empire; the rise of Chasidism; the pre-World War II Yiddish cultural ferment; literature and music; religious and political parties, including the impact of Zionism on established social and political life. The course examines recent developments: the rise of tourism to Eastern Europe; the historical, educational and memorial challenges associated with a reclamation of identity; and contemporary musical, religious and literary expressions.

NOTE: Students who have received credit for this topic under a RELI 398 or 498 number may not take this course for credit.

RELI 353 *Religion and the Arts in the West* (3 credits)

This course explores the way in which the fine arts, literary arts, and performing arts have given expression to, and shaped the experience of, religious realities in the history of the West, and also considers the ways in which, in a more recent and contemporary context, art may be seen as engaging with aspects of divinity and spirituality.

NOTE: Students who have received credit for this topic under a RELI 398 number may not take this course for credit.

RELI 354 Religion and Film (3 credits)

This course examines films that deal with religious themes — explicitly or implicitly — and provides an opportunity to analyze the language of film as a form of narrative through which cultural and religious ideas are transmitted.

NOTE: Students who have received credit for this topic under a RELI 398 number may not take this course for credit.

RELI 355 Religion and Violence (3 credits)

This course explores how religion may be seen to engender or exacerbate violence, as well as the ways that religion may critique, prevent or even offer alternatives to violence. Sacred writings, theologies, rituals and communal actions of particular communities are studied, as well as notions of the self, the group, others, outsiders and enemies. In particular, the life-work and writings of such key figures as Mahatma Gandhi and Martin Luther King are studied in order to provide some religious perspectives on the relationship between non-violence and the resistance to injustice.

NOTE: Students who have received credit for this topic under a RELI 398 number may not take this course for credit.

RELI 357 Religion and the Public Square in North America (3 credits)

This course examines how religion in Canada and America is contested and practised in "the public square," for example, through political speeches, cultural events and ceremonies, in legal codes and in public places. Themes may vary from year to year.

NOTE: Students who have received credit for RELI 403 may not take this course for credit.

RELI 358 Anthropology of Religion (3 credits)

This course introduces students to debates and themes that have coloured the anthropology of religion over the last century. After covering classic anthropological texts, it focuses on contemporary issues including self-reflexivity, power/agency, materiality and consumption, post-colonization, post-modernity/secularity and communitas.

NOTE: Students who have received credit for this topic under an ANTH 398 or RELI 398 number may not take this course for credit.

RELI 360 Religions of China (3 credits)

This course concentrates on the historical development of Chinese religions from the earliest periods of Chinese civilization to contemporary times. It investigates the relationships among the classical religious traditions as portrayed through scriptures, commentaries, and rituals. Focus is placed on the unfolding of the five great religious currents of China: the classical imperial cults, Daoism, Confucianism, Buddhism, and popular cults.

NOTE: Students who have received credit for RELI 349 may not take this course for credit.

RELI 361 Religions of Japan (3 credits)

This course uses a historical approach to understand the development of Japanese religious traditions. It investigates popular Japanese cults and religions, the assimilation of foreign religious thought and practices, and the implantation of Buddhism, Confucianism, and other models from China. Religious sectarianism, state-regulated religious schools, cults, and the role of religion in the establishment of Japanese national identity are also studied.

NOTE: Students who have received credit for RELI 349 may not take this course for credit.

RELI 362 Religions of Tibet (3 credits)

The goal of this course is to familiarize students with current issues in Tibetan studies and to enhance understanding of Tibetan religion in Tibet, China and the rest of the world. It examines the "nameless" popular religions of Tibet, including mountain cults, shamanism, spirit possession and a variety of manifestations of popular religion. Students become familiar with the main schools of Tibetan Buddhism and the Bon religion, their history, dogma, lineages, philosophical enquiries, ritual and ascetic practices.

NOTE: Students who have received credit for this topic under a RELI 398 number may not take this course for credit.

RELI 363 Jainism (3 credits)

This course provides an introduction to the religious culture of the Jain community. The early history of the Jain tradition in India is explored through a consideration of the life stories of the great teachers of the tradition, of the classical systems of Jain philosophy, cosmology and ethics, and of the rich traditions of Jain narrative literature and art. Contemporary Jainism, including the religious practices of monks, nuns, laymen, and laywomen, and the contemporary relevance of Jainism's central precept of universal non-violence (ahimsa) are also studied.

NOTE: Students who have received credit for this topic under a RELI 398 number may not take this course for credit.

RELI 364 Mahayana Buddhism (3 credits)

This course studies the origins and evolution of the Mahayana Buddhist in India, and the spread and growth of various Mahayana traditions in East Asia. It examines developments in texts, doctrine, philosophy, ethical ideals, practices (worship and meditation), and institutions.

RELI 365 Religion and Literature (3 credits)

This course examines how literary works assist in the understanding of religious traditions, and how literary texts can stand as reinterpretations of religious texts and beliefs in a number of religious traditions. Readings include canonical religious, literary, and critical texts. Consideration is given to how certain provocative books have created social and political unrest, as well as to how certain thinkers understand literary undertakings as expressions of religious modes of thought and creativity.

RELI 366 Religion and Music (3 credits)

This course explores sacred music in its religious and cultural contexts. It examines the ways in which religion has served as an inspiration and performance context for music across the world, and some of the ways in which musical expression has been

central to religious practice. Topics range from Gregorian chant to Quranic recitation, from Hindu, Muslim, and Sikh devotional song in South Asia to esoteric Tibetan chant, and from J.S. Bach to Gospel singing in African-American churches.

NOTE: Students who have received credit for this topic under a RELI 398 number may not take this course for credit.

RELI 367 *Ritual, Ceremony and Celebration* (3 credits)

Ritual is one of the essential components of religious practice. This course explores the place and function of ritual in a variety of religious traditions, both historical and contemporary. It looks at theoretical understandings of religious ritual, and examines such rituals as sacrifice, rites of passage, worship and ascetic and meditative practices in their theological, social, and cultural contexts.

RELI 368 *Religion in Native Traditions* (3 credits)

This overview looks at the many diverse religious traditions of the First Nations populations in North America. The course examines the sacred stories, ceremonial patterns, life cycle rituals, and religious activities in their varied expressions. Consideration is given to the historical interaction of native government with religious practices.

RELI 370 *Topics in Comparative Religion* (3 credits)

This course treats various topics in comparative perspective, examining religious themes as they are represented in two or more religious traditions. Topics covered change from year to year, and may include comparative religious law, comparative ritual, comparative philosophy, or comparative ethics. Specific topics for this course are stated in the Undergraduate Class Schedule.

RELI 371 *Health, Healing and Religion* (3 credits)

This course examines beliefs about health and healing in various religions and different periods of history. It examines the cultural systems linked to disease, pathology and health, along with ritualistic, meditative, hygienic and other strategies used to deal with sickness. The course explores concepts of health, longevity and the human body in relation to society, nature, and culturally conceived transcendent worlds.

NOTE: Students who have received credit for RELI 369 may not take this course for credit.

RELI 372 *Religion and the Body* (3 credits)

This study of religious attitudes to the human body focuses on the body as a foundation for religious symbolism, religious community and identity, ritual, and religious experience. The course examines these problems with reference to various religious traditions. Issues examined include purification of the body; eating; mortification and mutilation of the body; attitudes towards dead bodies and physical immortality; attitudes towards bodies as gendered; embodied spirituality and incarnation.

RELI 373 *Introduction to Mysticism* (3 credits)

This course examines the concepts of mysticism articulated by contemporary scholarship. It then looks at mystical texts and experiences from a variety of religious traditions both comparatively and with respect to their position within the dynamic of their own traditions.

RELI 374 *Religion and Science* (3 credits)

How has religion viewed science, and how has science viewed religion? This course explores the relationship between religion and science both within particular religio-cultural contexts and in comparative perspective. The contexts considered may include those belonging to Christian, Jewish, Muslim, Hindu, or other Asian worldviews. Points of conflict and contact between scientific and religious discourses are also explored.

RELI 375 *Religions of Canada* (3 credits)

This course examines the role religions have played in the development of Canada as well as their influence in Canadian society, politics, and culture. Attention is paid as well to the interaction of different religious groups in the Canadian context.

NOTE: Students who have received credit for RELI 363 may not take this course for credit.

RELI 376 *Psychology of Religion* (3 credits)

This survey looks at various perspectives and methods used in psychology as they are relevant to understanding the role and value of religion for the individual. The course examines the ideas of such figures as William James, Freud, and Jung, among others, and considers such topics as intense religious experience, conversion, images of God, myth and symbol, ritual, and religious and moral development.

RELI 378 *Death and Dying* (3 credits)

This course provides a comparative perspective on the variety of conceptions and practices related to death and dying that are found in different world religions. In addition, the course considers how people in contemporary North American society utilize traditional religious concepts and rituals, scientific understandings and medical procedures, or innovative combinations of ideas and practices with which to cope.

RELI 379 *Philosophy of Religion* (3 credits)

This course introduces students to some classical and contemporary discussions in the field of philosophy of religion. It explores such topics as the nature of religion, religious experience, faith and reason, religious language, religion and science, religious diversity, and religion and morality. It examines in what ways comparative philosophy of religion and feminist philosophy of religion challenge the very nature, parameters, and traditional questions of philosophy of religion as a whole.

NOTE: Students who have received credit for this topic under a RELI 398 number may not take this course for credit.

RELI 380 *Religion and Sexuality* (3 credits)

This course examines, from a comparative and historical perspective, the interplay between religion and sexuality. It looks at the development of attitudes towards sexuality within diverse religious traditions, and religious manifestations of sexuality. Topics include, among others: human reproduction, gender roles and identity, birth control, abortion, celibacy, sexual variance, and homosexuality.

RELI 381 *Women and Religion: Judaism* (3 credits)

This course explores the status and religious roles of women within the Judaic tradition. Its focus is on the practice of the religion, especially the ritual and legal spheres. The relationship between common practice, popular attitudes, and formal legal principles is examined in order to inquire into issues of gender and religion.

RELI 382 *Women and Religion: Christianity* (3 credits)

The focus of the course is the role of women and the conflicting patterns of gender construction in the history of Christianity. Through a critical use of primary and secondary sources, both visual and textual, the course explores the sources of women's power and subordination in order to illuminate the relationship between gender and the Christian tradition.

RELI 383 *Women and Religion: Islam* (3 credits)

This course explores past and present debates among Muslims about the ideal status of women in Islam. The historical and legal background — the material of the debate — is examined first. The class then considers how a variety of discourses, ranging from conservative to Muslim-feminist, treat and manipulate this material.

RELI 384 *Women and Religion: Hinduism* (3 credits)

This course examines the roles and activities of Hindu women. Issues to be considered include the construction in history of models for the "Hindu woman" and the ways in which such models have shaped Hindu women's lives and experience, the religious activities of Hindu women, the contemporary concerns. The relation between abstract Hindu conceptions of "the feminine" — as a force to be revered, regulated, or repressed — and the actual circumstances and activities of Hindu women, both in the present and in the past, is discussed.

RELI 385 *Women and Religion: Buddhism* (3 credits)

This course explores the situation, activities, and experiences of women within Buddhism. Using an historical approach, the course examines the circumstances of women in early Buddhism, and traces subsequent developments in India, Tibet, Southeast Asia, the Far East, and the West, up to the present day.

RELI 386 *Witchcraft, Magic and Religion* (3 credits)

This course approaches the study of magic, witchcraft, and religion from a variety of perspectives. Taking examples from indigenous cultures, the ancient world, medieval Europe, the early modern period and contemporary movements, the practices and rituals that have been labelled magic or witchcraft are examined, along with the responses to them. The course explores how magicians and witches view themselves, how different cultures relate to them, and how magic, witchcraft, and religion merge and diverge.

NOTE: Students who have received credit for this topic under a RELI 398 number may not take this course for credit.

RELI 387 *Goddesses and Religious Images of Women* (3 credits)

This comparative survey of female divinity and feminine imagery studies various religious traditions. Among the issues to be explored are the imaging of goddesses as mothers; the conception of forces like fertility, energy, materiality, and knowledge as feminine; the correspondences and relations between goddesses and women; and the contemporary feminist recovery of the Goddess.

RELI 388 *The Bible and Sexuality* (3 credits)

This course examines the wide variety of perspectives on sexuality within Scripture. It considers the ancient contexts in which these texts were composed as well as how Jews and/or Christians have read these texts over time, in light of changing notions of sexuality and gender. Among the topics considered are gendered and sexual identities, celibacy, marriage, same-sex relationships, human reproduction and child-rearing, and sexual desire. Ultimately, it addresses how the Bible reflects and has informed the various Jewish and/or Christian perspectives on these issues.

NOTE: Students who have received credit for this topic under a RELI 398 number may not take this course for credit.

RELI 389 *Women's Ritual: Expressions and Expertise* (3 credits)

This comparative examination of the contexts and patterns of women's ritual lives looks at various religious traditions. In addition to considering women's activities in formal or public ritual contexts, this course focuses especially on the importance of women as ritual specialists and authorities in the context of the home.

RELI 390 *Angels and Demons in Judaism* (3 credits)

This course explores the Jewish version of the supernatural world. Students are introduced to the varieties of Jewish belief and experience that have existed from ancient times to today; the ways of thinking about Jewish and human experience that have shifted and evolved over time; and the different reasons why authors may choose to engage with the supernatural world.

NOTE: Students who have received credit for this topic under a RELI 398 number may not take this course for credit.

RELI 391 *Women in Jewish History: Ancient and Medieval* (3 credits)

This course examines the lives and experiences of Jewish women from the late antique period through and including the medieval. Using primary and secondary materials, the class inquires into the varieties of women's encounter with history. The differences between communal standards and individual exploits are highlighted, as are geographic distinctions. Through a critical reading of Jewish sources and historians' accounts, questions of methodology and theory are addressed.

RELI 392 *Women in Jewish History: Modern* (3 credits)

This course examines the lives and experiences of Jewish women in the modern period. The immigrations to North America and the subsequent development of the community provide the framework for investigating Jewish women's encounter with and contribution to modern Jewish life. The main focus is on North America, using primary sources such as fiction, biography, and autobiography. The influence of denominational differences and feminist challenges complete the survey.

RELI 393 *Women in Israel* (3 credits)

This course explores women's experience in the development of Israeli society. Students are introduced to the history, social planning, politics and religious authority that have shaped the current status of women in Israel.

NOTE: Students who have received credit for this topic under a RELI 398 number may not take this course for credit.

RELI 394 *History of Satan: Evil Personified in Judaism and Christianity* (3 credits)

This course investigates the origins, development, and significance of Satan in early Judaism and the history of Christianity. Consideration is given to some of the most important literary and visual depictions of this figure from the ancient world through the Middle Ages to present day. The course sheds light on how intellectuals thought of this figure and also how Satan came to play an important role in popular culture down through the centuries.

NOTE: Students who have received credit for this topic under a RELI 398 number may not take this course for credit.

RELI 395 *Studies in Jewish Thought and Philosophy* (3 credits)

By means of the analysis of particular issues, thinkers, and texts, this course explores the character of Jewish philosophy. Issues in Jewish philosophy that may be examined include the relationship between faith and reason, the understanding of God, Judaism and the inter-human, the powers and limits of philosophical understanding.

RELI 396 *Food and Religion* (3 credits)

This course examines food cultures and food rituals and explores religious meanings and the making of religious identities. The preparing and sharing of food defines religious community and expresses religious values. In looking at food in several world religions, this course focuses on how food can serve as a medium of transmission and transaction, and on the roles that women and men, gods and ancestors, and other beings and forces have in this network.

NOTE: Students who have received credit for this topic under a RELI 398 number may not take this course for credit.

RELI 397 *Kabbalah and Jewish Mysticism* (3 credits)

This survey of kabbala, the Jewish mystical tradition, places emphasis on the study of representative Jewish mystical texts and socio-historical context for the developing mystical traditions. It includes the development of the messianic idea, Merkava mysticism, Hasidei Ashkenaz, Kabbalah, Sabbatianism, and Hasidism. The current popularity of Kabbalah is also addressed.

NOTE: Students who have received credit for this topic under a RELI 379 number may not take this course for credit.

RELI 398 *Selected Topics in Religion* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

RELI 400 *Topics in Contemporary Christianity* (3 credits)

Prerequisite: Permission of the Department. Christianity is a vibrant religious tradition in a state of flux. The encounters, struggles and tensions which Christianity and contemporary cultures are experiencing continue to have a significant impact on our world. This course considers some of those dynamics by focusing on relevant topics from across a variety of Christian denominations and groups.

RELI 401 *Studies in Hebrew Texts* (3 credits)

Prerequisite: HEBR 210, 241, 242; or permission of the Department. A reading of representative selections of classical and modern Hebrew texts. Attention is paid to the historical and philosophical background of the texts.

RELI 402 *Ancient Jewish Biblical Interpretation* (3 credits)

Prerequisite: Permission of the Department. This course introduces the major methods, genres, and authors of ancient biblical interpretation together with important recent theoretical approaches to this material. Ancient works considered include later biblical books, rabbinic midrash, and the works of early Jewish and Christian authors, such as Jubilees, the Gospels, and the writings of Philo and Josephus. The course reveals the ways in which this central text was made ever new and relevant and the ways in which it serves as a mirror of the religious diversity of classical to late antiquity.

RELI 404 *Advanced Ancient Judaism* (3 credits)

Prerequisite: Permission of the Department. This course introduces, at an advanced level, major topics and scholarly debates in the study of Jewish history and culture in classical and late antiquity, from the Hellenistic period until the Babylonian Talmud (second century BCE to seventh century CE). Special attention is given to the study of ancient textual, epigraphical, and archaeological evidence, together with its contemporary interpretation.

RELI 405 *Food, Sex, and Death in Judaism* (3 credits)

Prerequisite: Permission of the Department. This course explores three activities associated with the body — food, sex, and death — as they have been constructed throughout the past 2,000 years of Jewish history. Special attention is given to the cultural contexts in which Jewish practices and attitudes have been shaped, to the relationship between ritual practice and the construction of supernatural worlds, and to the interaction between embodiment and religious experience.

RELI 406 *Feminist Hermeneutics and Scripture* (3 credits)

This course employs critical feminist approaches to sacred texts with a focus on the rediscovery of women within them. Designed for advanced students able to work with primary sources, this course may consider texts such as Hebrew Bible, New Testament, early Jewish and Christian literature, the Qur'an and Hadith, as well as Hindu and Buddhist writings.

RELI 407 *Topics in Judaic Studies* (3 credits)

This course deals with advanced topics in Judaic Studies. Topics covered change from year to year, and may include Jewish law, Jewish ritual, and Jewish mysticism. Specific topics for this course are stated in the Undergraduate Class Schedule.

NOTE: Students who have received credit for RELI 394 or 397 not take this course for credit.

RELI 409 *Methodology and the Study of Religion* (3 credits)

Prerequisite: Permission of the Department. This course examines the various methodological approaches that inform the comparative study of religion. Questions investigated pertain to the collection and interpretation of evidence, the types of resources available and techniques used, the complex differences between men's and women's religious experiences and expressions, as well as the impact of significant theoretical approaches on the analysis of religion.

RELI 410 *Honours Thesis* (6 credits)

Prerequisite: Honours standing in Religions and Cultures or Judaic Studies. The student works with an individual faculty member in a particular field of religious or Judaic studies. Students are asked to produce a sustained piece of written work to be read by their advisor and at least one other member of the Department.

NOTE: Students who have received credit for RELI 499 may not take this course for credit.

RELI 419 *Approaches to the Quran* (3 credits)

Prerequisite: Permission of the Department. The course examines selected issues and themes through various works of exegesis or *tafsir*, ranging from the formative texts to interpretations produced in modern times. Development of the exegetical tradition and the nature of various approaches are also considered. Language proficiency is not required, although original texts are available to those able to read them.

NOTE: Students who have received credit for RELI 411 may not take this course for credit.

RELI 420 *Queer Studies in Religion* (3 credits)

Prerequisite: Permission of the Department. This course examines the multiple critical intersections between and among issues of gender, sexuality and religion in different cultures and historical periods. It considers, in particular, the insights provided by queer theory in analyzing and understanding such intersections.

RELI 430 *Hear, See, Taste, Touch: Religion and Material Culture* (3 credits)

This course explores the myriad material forms that make faith tangible for Christians and other persons of faith: images and art, devotional and liturgical objects, architecture and sacred space, and mass-produced projects. It explores the importance of practices that incorporate objects like ritual, prayer, liturgy, instruction, and display. It pays close attention to the scholarly and theological debates that result.

RELI 440 *Greco-Roman Religions* (3 credits)

Prerequisite: Permission of the Department. This course examines how ancient Greeks and Romans interacted with their gods and other sacred beings. It demonstrates the religious and cultural diversity that marked religious life in the ancient Mediterranean world. Among the topics considered are religion and state, domestic cult, funerary practice, hero devotion, mystery cults, the occult and magic, voluntary associations, and philosophical schools.

NOTE: Students who have received credit for this topic under a RELI 498 number may not take this course for credit.

RELI 496 *Independent Studies in Religion* (3 credits)

Prerequisite: Permission of the Department. The student works with an individual faculty member in a particular field of religious or Judaic studies, as a reading course.

NOTE: Students who have received credit for RELI 495 may not take this course for credit.

RELI 498 *Advanced Topics in Religion* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

SOCIOLOGY AND ANTHROPOLOGY

Section 31.310

Faculty

Chair

AMY SWIFFEN, PhD *University of Alberta; Associate Professor*

Sociology

Professors

DANIEL DAGENAIS, PhD *Université de Paris X, Nanterre*
VALÉRIE DE COURVILLE NICOL, PhD *Carleton University*
DANIELLE GAUVREAU, PhD *Université de Montréal*
SYLVIA KAIROUZ, PhD *Université de Montréal*
KATJA NEVES, PhD *York University*
GREG M. NIELSEN, PhD *Université de Montréal*
SHELLEY Z. REUTER, PhD *Queen's University*
JEAN-PHILIPPE WARREN, PhD *Université de Montréal; Provost's Distinction*

Associate Professors

MEIR AMOR, PhD *University of Toronto*
BEVERLEY BEST, PhD *Simon Fraser University*
MARTIN FRENCH, PhD *Queen's University*
ORIT HALPERN, PhD *Harvard University*
SATOSHI IKEDA, PhD *Michigan State University*, PhD *State University of New York at Binghamton*
MARC LAFRANCE, PhD *University of Oxford*
BART SIMON, PhD *University of California, San Diego*

Assistant Professors

CHRIS HURL, PhD *Carleton University*
OCEANE JASOR, PhD *Florida International University*
MARIE-PIER JOLY, PhD *University of Toronto*
MATTHEW UNGER, PhD *University of Alberta*

Senior Lecturers

AARON BRAUER, MA *Concordia University*
HUSSEIN MERHI, PhD *Université de Montréal*

Anthropology

Professors

VERED AMIT, PhD *University of Manchester*
MAXIMILIAN C. FORTE, PhD *University of Adelaide*
J. DAVID HOWES, PhD *Université de Montréal*
CHRISTINE JOURDAN, PhD *Australian National University*

Associate Professors

KREGG HETHERINGTON, PhD *University of California, Davis*
MARK WATSON, PhD *University of Alberta*

Assistant Professors

NAYROUZ ABU HATOUM, PhD *York University*
JULIE S. ARCHAMBAULT, PhD *University of London*

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus
Hall Building, Room: H 1125-44
514-848-2424, ext. 2140

Department Objectives

Sociology and Anthropology examine the processes of social and cultural life in diverse human societies, past and present. These core disciplines of the social sciences are closely linked to the humanities, since various aspects of culture and society concern them all.

The celebration of diversity — cultural, ethnic, and racial — among the students and faculty as well as in the subject matter, is a hallmark of the Department. It offers a full range of undergraduate programs, including joint programs in both disciplines.

Programs

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

Students seeking admission to the honours program may apply either for direct entry on the University application form or, once in the program, to the departmental honours advisor normally following the completion of 30 credits.

60 BA Honours in Sociology

- 3 SOCI 203^{3*}
- 6 SOCI 212^{3**}, 213³
- 3 200-level ANTH credits
- 6 SOCI 300⁶
- 3 SOCI 310³
- 6 SOCI 402³, 403³
- 6 SOCI 409⁶
- 6 Chosen from SOCI 410⁶, 415⁶
- 21 SOCI elective credits (maximum of six credits at the 200 level)

60 BA Specialization in Sociology

- 3 SOCI 203^{3*}
- 6 SOCI 212^{3**}, 213³
- 3 200-level ANTH credits
- 6 SOCI 300⁶
- 3 SOCI 310³
- 6 SOCI 402³, 403³
- 6 Chosen from SOCI 410⁶, 415⁶
- 21 SOCI elective credits (maximum of six credits from the 200 level)
- 6 400-level SOCI credits

60 BA Joint Specialization in Anthropology and Sociology

See Anthropology

42 BA Major in Sociology

- 3 SOCI 203^{3*}
- 6 SOCI 212^{3**}, 213³
- 3 200-level ANTH credits
- 6 SOCI 300⁶
- 3 SOCI 310³
- 18 SOCI elective credits (maximum of six credits from the 200 level)
- 3 400-level SOCI credits

30 Minor in Sociology

- 3 SOCI 203^{3*}
- 6 200-level SOCI credits
- 6 SOCI 300⁶
- 6 SOCI elective credits
- 9 300-level SOCI credits

*Students exempted from SOCI 203³ are required to take three credits from SOCI 200- or 300-level courses.

**Students exempted from SOCI 212³ are required to take three credits from SOCI 200- or 300-level courses.

Sociology and Anthropology Co-operative Program

Director

MARK WATSON, Associate Professor

The Sociology and Anthropology co-operative program is offered to students who are enrolled in the BA Honours, Specialization in Sociology/Anthropology, or Sociology or Anthropology Major. Students interested in applying for the Sociology and Anthropology co-op should refer to §24 where a full description of the admission requirements is provided.

Academic content is identical to that of the regular program, but study terms are interspersed with three work terms. Students are supervised personally and must meet the requirements specified by the Faculty of Arts and Science and the Institute for Co-operative Education in order to continue their studies in the co-op format.

Liaison between the student, the employers and the Institute for Co-operative Education is provided by the Sociology and Anthropology co-op committee, which includes the student's advisors. Please refer to §24 for additional information.

Sociology and Anthropology C.Edge (Career Edge) Option

The Sociology and Anthropology C.Edge option is offered through the Institute for Co-operative Education. Like the co-operative program, C.Edge allows students to gain practical experience through work terms related to their field of study. It is limited to one or two work terms, normally in the summer. Students interested in applying for the C.Edge option should refer to §24 where a full description is provided.

Courses

N.B.:

- (1) 300-level courses are open to students who have successfully completed SOCI 203 or equivalent, plus at least three credits of 200-level Sociology courses. Students in related disciplines who wish to take cognate courses in Sociology may apply to the Sociology undergraduate advisor for a prerequisite waiver on the basis of equivalent background.
- (2) 400-level courses are open to students who have successfully completed at least six credits from 300-level SOCI courses.
- (3) Entry requirements for Sociology/Anthropology crosslisted courses depend on the discipline through which the course is entered. Once students have taken a crosslisted course under one disciplinary designation they may not take the course under the corresponding designation in the other discipline for credit. A crosslisted SOCI/ANTH course counts as either SOCI or ANTH as needed to satisfy the program requirements regardless of whether the student registered for the course as SOCI or ANTH.

SOCI 203 *Introduction to Society* (3 credits)

An introduction to the sociological study of society. The course begins with a consideration of the concepts, models, and methods used by sociologists. This is followed by an examination of selected substantive areas of social life, ranging from the relations between individuals and groups to total societies.

SOCI 212 *Statistics I* (3 credits)

Priority to enrol in this course is given to students who are in a Sociology or Anthropology program. This course provides an introduction to the basic principles of statistics for social scientists. Topics include the concept of the level of measurement, standardization, the interpretation of graphs, measures of univariate distributions, cross classification, elementary measures of association, the logic of controls, and the basic principles of inferential statistics. The emphasis is on the implications of these statistical techniques for theoretical understanding of sociology and anthropology.

NOTE: Students who have received credit for BIOL 322, COMM 215, ECON 221, GEOG 362, MAST 333 or PSYC 315 may not take this course for credit.

SOCI 213 *Statistics II* (3 credits)

Prerequisite: SOCI 212. Priority to enrol in this course is given to students who are in a Sociology or Anthropology program. This course is designed to follow Statistics I. Topics include measures of association, the principles of probability and sampling distributions, hypothesis testing, and tests of significance. The emphasis is on the implications of these statistical techniques for theoretical understanding in sociology and anthropology. This course also introduces students to SPSS (statistical software).

NOTE: Students who have received credit for ECON 221 and 222, MAST 221 and 333, PSYC 315 and 316, or STAT 249 and 250 may not take this course for credit.

SOCI 221 *Digital Culture* (3 credits)

This course offers a critical examination of the role of electronic communication, information technology, and the Internet in public culture and the organization of social behaviour and interaction.

SOCI 225 *Sociology Through Film* (3 credits)

The course introduces sociological topics through popular films. Cinema, television, and online videos are selected as examples that can be understood through sociological concepts. Students are provided with a general foundation in sociological thought and interdisciplinary approaches for study at more advanced levels.

NOTE: Students who have received credit for this topic under a SOCI 298 number may not take this course for credit.

SOCI 230 (also listed as ANTH 230)**Race and Ethnic Relations** (3 credits)

Prerequisite: See N.B. number (3). Race and ethnicity are examined as bases of social differentiation. Ethnic group relations are analyzed in relation to stratification and the exercise of power. The course further involves exploration of the phenomena of discrimination, prejudice, and intergroup accommodation.

NOTE: Students who have received credit for ANTH 230 may not take this course for credit.

SOCI 244 Sociology of Leisure (3 credits)

The course examines the effects of social, economic, and political institutions upon the structure and use of leisure time. The emphasis is upon historical changes and the implications of alienation, anomie, and inequality.

NOTE: Students who have received credit for SOCI 344 may not take this course for credit.

SOCI 250 Sociology of Culture (3 credits)

This course provides an introduction to theory and research on the sociology of culture, the organization and dynamics of cultural systems, cultural production and consumption, subcultures, mass culture, popular culture, and strategies of interpretive analysis for the study of culture.

SOCI 252 (also listed as ANTH 252)**Food and Culture** (3 credits)

Prerequisite: See N.B. number (3). This course is an introduction to the study of food from a cultural perspective. Themes may include a) archaeology of food production (domestication of plants and animals); b) class, cuisine, and the development of taste; c) food symbolism; and d) the political economy of food and hunger.

NOTE: Students who have received credit for ANTH 252 or for this topic under an ANTH 298 or SOCI 298 number may not take this course for credit.

SOCI 261 Social Problems (3 credits)

Students examine a range of social problems related to aging, health, poverty, population growth, crowding, crime and justice, gender and gender orientation, inequality, media, non-medical drug use, suicide, globalization, and race, ethnicity, and language issues. Attention is focused on the process by which social problems are defined and recognized, and social policies developed and modified.

SOCI 262 Social Deviance (3 credits)

This course focuses on the ways in which deviance and normalcy are socially constructed. It examines how deviance is related to social norms and how norms come into being. Deviance is viewed as a social process of interaction and relation that derives from the social structure and has consequences for it. Various forms of deviance are also considered in terms of contemporary social theory and research.

SOCI 263 Youth Crime and Deviance (3 credits)

This course examines the nature of youth crime and youth deviance and their social causes and consequences. Youth crime, as a special kind of deviance, receives the focus of attention, with emphasis on youth criminal justice and the social control of youth deviance generally.

SOCI 264 Sociology of Sport (3 credits)

This course provides a systematic analysis of the social influences upon sport in North America. Special attention is directed to the interrelationships between sport and various social institutions.

SOCI 274 The Sociology of Aging (3 credits)

This course examines the changes in society and in living conditions as populations and people age. The sources and the effects of these changes are looked at in the light of several substantive areas and in terms of their implications for social policy. While the major emphasis is on the Canadian experience, some comparative materials are used to widen the perspective.

SOCI 275 Self and Society (3 credits)

This course studies the basic concepts and theories regarding social definitions of the Self. Emphasis is placed on ideas regarding personality, motivation, and interpersonal attitudes, viewed in terms of the interplay between actors and social structures.

SOCI 276 (also listed as ANTH 276)**Gender and Society** (3 credits)

Prerequisite: See N.B. number (3). This course explores the social construction of gender categories both historically and in the present. The focus is upon examining the various theoretical perspectives which attempt to explain the ways in which society has organized "masculine" and "feminine" as the basis for social inequalities.

NOTE: Students who have received credit for ANTH 276 may not take this course for credit.

SOCI 277 (also listed as ANTH 277)**Contemporary Issues in Economy, Society, and Biodiversity** (3 credits)

Prerequisite: See N.B. number (3). This course explores the contemporary intersection of economic, societal, and ecological dynamics in capitalist societies while providing students with tools to understand and explain the historical embeddedness of these

processes. Offering a comprehensive introductory view of these issues, the course deploys a multidisciplinary socio-anthropological approach that also incorporates insight from geography, environmental sciences, and political science.

NOTE: Students who have received credit for ANTH 277 or for this topic under an ANTH or SOCI 298 number may not take this course for credit.

SOCI 280 *Debates and Challenges in Contemporary Quebec Society / La Société québécoise : défis et enjeux*
(3 credits)

How distinct is Quebec from the rest of Canada? What are the most important challenges confronting Quebec society? This course provides students with a sense of Quebec's history and demographics, a basic knowledge of provincial social policies, information pertaining to culture, identity and language issues, as well as key concepts which are useful to anyone who aims to live and work in Quebec.

Dans quelle mesure le Québec est-il distinct du reste du Canada? Quels sont les principaux défis auxquels le Québec est confronté? Ce cours offre aux étudiants une fenêtre sur l'histoire du Québec, sa démographie, ses politiques publiques et sa culture, tout en procurant des repères utiles à quiconque souhaite vivre et travailler au Québec.

NOTE: This course is offered in either English or French. Consult the Undergraduate Class Schedule for details.

NOTE: Ce cours est offert en anglais ou en français. Prière de consulter l'horaire des cours de premier cycle pour en savoir plus.

SOCI 282 *Canadian Society* (3 credits)

Analysis of Canadian social structure and change; the relation of the whole of Canadian society to its constituent elements; the relation of Canadian society to its international environment.

SOCI 285 *(also listed as ANTH 285/HIST 285/POLI 285)*
Introduction to Law and Society (3 credits)

Prerequisite: See N.B. number (3). This interdisciplinary course examines the roles law plays in Canada and internationally, from the perspectives of history, political science, anthropology, sociology, and philosophy.

NOTE: Students who have received credit for ANTH 285, HIST 285, or POLI 285, or for this topic under an ANTH 298, HIST 298, POLI 298, or SOCI 298 number, may not take this course for credit.

SOCI 290 *(also listed as SSDB 270/FFAR 290)*
HIV/AIDS: Cultural, Social and Scientific Aspects of the Pandemic (6 credits)

Prerequisite: See N.B. number (3). This course surveys the major issues and challenges of the HIV pandemic. Such topics as the biology of the virus, therapeutic, clinical and epidemiological research developments, the social costs of sexual taboos and discrimination, and media and artistic representation by and of people with HIV are presented by faculty and visiting community experts. The epidemics in the Western hemisphere, Africa, Asia, and other regions are addressed. Learning is based on lectures, weekly tutorials, and community involvement.

NOTE: Students who have received credit for FFAR 290, 390, INTE 270, 390, SSDB 270, or for this topic under an FFAR 398, INTE 398, or SOCI 399 number, may not take this course for credit.

SOCI 298 *Selected Topics in Sociology* (3 credits)

SOCI 299 *Selected Topics in Sociology* (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule and the Departmental Handbook.

SOCI 300 *Classical Social Theory* (6 credits)

Prerequisite: See N.B. number (1). This course involves an examination of the origins of sociology and of the sociological works of 19th- and early-20th-century European theorists, with consideration of the social and political context. Particular emphasis is given to the works of Durkheim, Marx, and Weber. Readings include primary sources and critical commentaries.

SOCI 303 *(also listed as ANTH 303)*
Indigenous Resurgence (3 credits)

Prerequisite: See N.B. number (1) and (3). Through a selection of case studies from the Americas, Australia, and New Zealand, this course focuses on contemporary indigenous political struggles, cultural resurgence, race and identity, language revival, urbanization, transnational organization, indigenous media, and debates concerning tradition.

NOTE: Students who have received credit for ANTH 303 may not take this course for credit.

SOCI 310 *Research Methods* (3 credits)

Prerequisite: See N.B. number (1); SOCI 212. This course introduces students to the concepts, language, and techniques of quantitative and qualitative research methods. It familiarizes students with the initiation of research problems, the gathering of accurate data, their analysis and the interpretation and reporting of research findings. This course also introduces students to library research.

SOCI 319 *(also listed as ANTH 319)*
Socio-Environmental Issues (3 credits)

Prerequisite: See N.B. numbers (1) and (3). This course provides a comprehensive introduction to the main environmental issues

and dilemmas affecting contemporary societies around the world, as well as the necessary sociological and anthropological tools to understand and tackle these challenges.

NOTE: Students who have received credit for ANTH 319 may not take this course for credit.

SOCI 321 *Sociology of Health, Illness and Medicine* (3 credits)

Prerequisite: See N.B. number (1). This course examines health, illness and medicine as socio-cultural, rather than strictly biomedical, phenomena. Topics may include the sick role; stigma; the experience of illness; the concept of disease and disease classification; the politics of disease; medicalization of gender, "race," and disability; and the Canadian health-care system, including Big Pharma and Complementary and Alternative Medicine.

NOTE: Students who have received credit for this topic under a SOCI 398 number may not take this course for credit.

SOCI 322 *(also listed as ANTH 322)*

***Popular Culture in the Middle East* (3 credits)**

Prerequisite: See N.B. numbers (1) and (3). This course examines areas of contestation between such social forces in the Middle East as the state, elders, women, and youth as they seek to control and define popular culture and everyday practices which have become highly politicized. Contested domains to be considered include mass media, dance and music, art, rituals, sexuality, and clothing, and their implications for the people and societies involved.

NOTE: Students who have received credit for ANTH 322 or 323, or for this topic under an ANTH 398 or SOCI 398 number, may not take this course for credit.

SOCI 323 *Economic Transformations in Capitalist Society* (3 credits)

Prerequisite: See N.B. number (1). This course maps the emergence of capitalist society and its transformations over the 20th century, and also explores a number of its contemporary dynamics. The course takes a panoramic and integrated approach to the analysis of capitalist society, demonstrating the deep interconnectedness of what is referred to as "the economy" to all aspects of social life.

SOCI 325 *Social Change* (3 credits)

Prerequisite: See N.B. number (1). This course examines the sources, mechanisms, and consequences of social and cultural change. Classical and contemporary theories of change are analyzed, as well as significant empirical studies.

SOCI 329 *Sexual Labour and Society* (3 credits)

Prerequisite: See N.B. number (1). Sociologists have studied sexual labour in a variety of ways: as a form of deviant behaviour, as a particular type of gender relation, and as a distinct occupational sector. This course explores the sociology of sexual labour; the historical and legal contexts of sex industries; health and safety; media representations; online interactions; the emergence of sex worker organizations; and the intersections of private belief, public morality, consumer capitalism and the organization of justice. In addition to providing an overview of theoretical and methodological paradigms, the course is grounded in a comparative perspective that critically examines a variety of current events.

NOTE: Students who have received credit for this topic under a SOCI 398 number may not take this course for credit.

SOCI 331 *Social Inequalities* (3 credits)

Prerequisite: See N.B. number (1). This course examines the dynamics of social stratification and differentiation, including economic distinctions and their consequences, social status, power, and mobility. Emphasis is placed upon Canadian society.

SOCI 333 *Political Sociology* (3 credits)

Prerequisite: See N.B. number (1). This course is concerned with the nature, organization, distribution, determinants, and consequences of power in social systems.

NOTE: Students who have received credit for SCPA 333 may not take this course for credit.

SOCI 336 *Collective Action* (3 credits)

Prerequisite: See N.B. number (1). This course is concerned with the nature, emergence, and dynamics of short-term collective action. Classical collective behaviour theories and contemporary interpretations of collective action are examined.

SOCI 338 *Sociology of Religion* (3 credits)

Prerequisite: See N.B. number (1). This course presents an overview of the role of religion in society as found in the pertinent literature of sociology and anthropology. Special consideration is given to the relationship between religion and other social institutions, with particular attention to changes in the religious structures and practices in modern pluralistic societies.

SOCI 341 *Sociology of the Media* (3 credits)

Prerequisite: See N.B. number (1). This course provides an introduction to sociological debates on the relevance and impact of mass media in our society. With a focus on North American media, this course takes a historical perspective to explore the rise of the mass media and the transformation of its relation with culture, especially popular culture. Particular attention is given to themes such as media and identity, national identity; media structures and ownership concentration; media texts and audiences.

SOCI 342 *Sociology of Occupations* (3 credits)

Prerequisite: See N.B. number (1). This course examines the role played by occupations and the world of work in industrialized societies. Economic, social, psychological, and moral attributes of occupations are examined in relation to changing markets for

labour. Specific problem areas to be covered include changes in the structure of professions, the effects of changing technology and organizational design on occupational requirements, issues in work and household demands, issues in employment equity and problems of unemployment.

SOCI 343 (also listed as ANTH 343)

Media Ethnographies (3 credits)

Prerequisite: See N.B. numbers (1) and (3). Focusing on mass media (radio, television, cinema, print), this course considers how ethnographic approaches to media production and consumption may alter, or sometimes reinforce, dominant understandings of the impact of media. A range of theories of the social and cultural impacts of mass media, as well as ethnographic perspectives on audiences in everyday life are explored.

NOTE: Students who have received credit for ANTH 343 or for this topic under an ANTH 398 or SOCI 398 number may not take this course for credit.

SOCI 345 (also listed as ANTH 345)

Movement and Travel (3 credits)

Prerequisite: See N.B. numbers (1) and (3). Drawing on contemporary interdisciplinary studies of mobility, this course examines the processes, policies, and issues that may be common to different categories of travel and movement as well as those that can distinguish between them.

NOTE: Students who have received credit for ANTH 345 or for this topic under an ANTH 398 number may not take this course for credit.

SOCI 347 Sociology of Labour-Management Relations (3 credits)

Prerequisite: See N.B. number (1). This course involves the study of the shifting patterns in labour-management relations with a special focus on Canada. The course includes analyses of theories of management; the impact of the labour union movement, changes in the nature of the labour market; the significance of the growth of the service sector; the changing role of governments in labour-related issues; and contemporary thought on new forms of industrial organization.

SOCI 349 (also listed as ANTH 349)

Youth: Anthropological and Sociological Perspectives (3 credits)

Prerequisite: See N.B. numbers (1) and (3). This course brings anthropological and sociological perspectives to bear on the ways in which youths view and interact with each other and the world.

NOTE: Students who have received credit for ANTH 349 or for this topic under an ANTH 398 or SOCI 398 number may not take this course for credit.

SOCI 352 (also listed as ANTH 352)

Population and Environment (3 credits)

Prerequisite: See N.B. numbers (1) and (3); SOCI 212. Population and environment have become two of the most contested areas for theory, research, policy and public action. The course critically examines the pillars of the population and the environment discourses with attention to differences between developed and developing countries. It provides an overview of the evolution of demands for population control to a common acceptance of a reproductive rights perspective. Similarly, the course focuses on current debates on environment and the management of the global commons from both the industrialized and developing countries' perspectives.

NOTE: Students who have received credit for ANTH 352 may not take this course for credit.

SOCI 353 (also listed as ANTH 353)

Questioning Community (3 credits)

Prerequisite: See N.B. numbers (1) and (3). Community is a term that appears frequently in academic as well as everyday language but it is used to convey a wide variety of meanings. This course provides a critical review of some of the groupings, feelings, claims, ideas as well as types and qualities of relationships that can be associated with community. Can such an ambiguous term still be analytically useful?

NOTE: Students who have received credit for ANTH 353 or SCPA 353 may not take this course for credit.

SOCI 355 (also listed as ANTH 355)

Urban Regions (3 credits)

Prerequisite: See N.B. numbers (1) and (3). This course reviews the work of anthropologists and sociologists in cities. The focus is on the social organization of social life in First and Third World urban spaces. Consideration is also given to the particular dynamics of fieldwork in urban settings.

NOTE: Students who have received credit for ANTH 355 or SCPA 355 may not take this course for credit.

SOCI 358 Population Challenges of the 21st Century (3 credits)

Prerequisite: See N.B. number (1). This course provides an introduction to the basic principles, data, and methods of population studies through an examination of current issues such as the aging of the population; the sex imbalance in some countries; immigration and globalization; the future of the world population; cohabitation and the growing diversity of families. Social factors and the consequences for our societies of these demographic challenges are discussed.

SOCI 362 *Introduction to Criminology* (3 credits)

Prerequisite: See N.B. number (1). This course is an introduction to criminology — the sociological study of crime. Through the course, students gain an understanding of criminality as a social phenomenon, including the role of criminal law in Canada; the social correlates of crime; underlying social processes involved in defining criminality; different approaches to the study of crime; and defining the concept of "crime" itself.

**SOCI 363 *(also listed as ANTH 363)
Law and Society*** (3 credits)

Prerequisite: See N.B. numbers (1) and (3). This course situates the study of law in a historical, philosophical, and cross-cultural perspective. It explores numerous issues of relevance to the legitimacy of contemporary Western legal systems, such as the relationship between law and morality, the idea of right prior to good, and the nature of legal reasoning. It may also involve an examination of the kinds of institutions found in place of courts in non-Western societies.

NOTE: Students who have received credit for ANTH 363 may not take this course for credit.

**SOCI 366 *(also listed as HIST 359)
The History and Sociology of Genocide to 1945*** (3 credits)

Prerequisite: See N.B. numbers (1) and (3). Through the comparative and historical examination of a number of cases, this course investigates the meaning of genocide and the processes that have led to genocide up to 1945.

NOTE: Students who have received credit for HIST 359 may not take this course for credit.

**SOCI 367 *(also listed as HIST 360)
The History and Sociology of Genocide from 1945 to the Present*** (3 credits)

Prerequisite: See N.B. numbers (1) and (3). Through the comparative and historical examination of a number of cases, this course investigates the meaning of genocide and the processes that led to genocide from 1945 to the present.

NOTE: Students who have received credit for HIST 360 may not take this course for credit.

**SOCI 375 *(also listed as ANTH 375)
Social Construction of Sexualities*** (3 credits)

Prerequisite: See N.B. numbers (1) and (3) or enrolment in the Major or Minor in Interdisciplinary Studies in Sexuality. This course provides a cross-cultural, interdisciplinary approach to the study of human sexuality. There are three major components. One explores the validity of contemporary sexual beliefs and attitudes. Another focuses on the extent to which sexual beliefs and behaviours are socially organized. A third provides an introduction to theories which examine how biological and/or social forces shape our sexual lives.

NOTE: Students who have received credit for ANTH 375 may not take this course for credit.

SOCI 376 *Socialization* (3 credits)

Prerequisite: See N.B. number (1). This course examines the social and cultural processes by which the individual becomes a functioning member of society. Attention is given to adult socialization and re-socialization in diverse institutional contexts such as schools, occupations, hospitals, prisons, the military. The relationship of social structure to role acquisition and role performance is a major focus of the course.

**SOCI 378 *(also listed as ANTH 378)
The Family*** (3 credits)

Prerequisite: See N.B. numbers (1) and (3). This course examines the family as an institution in relation to its evolution from kinship societies up to the present. The course first introduces elementary structures of kinship and examines the family institution in the context of traditional societies. Special attention is devoted to the development of the modern family and to its current transformation.

NOTE: Students who have received credit for ANTH 378 may not take this course for credit.

**SOCI 380 *(also listed as ANTH 380)
Contemporary Issues in Human Rights*** (3 credits)

Prerequisite: See N.B. numbers (1) and (3). The course develops, through case analysis, insight into the differing priorities and competing concepts of human rights and human dignity in "non-Western" cultural traditions as well as in "Western" societies. It explores the significance of religious and other ideological positions in the use and abuse of human rights by governments, extra-governments, international bodies, as well as the general public. The course also examines topics such as women's human rights, sexuality and human rights, and human rights in development, the limits of sovereignty, and state accountability.

NOTE: Students who have received credit for ANTH 380 may not take this course for credit.

**SOCI 381 *(also listed as ANTH 381)
Ethnic Communities in Canada*** (3 credits)

Prerequisite: See N.B. numbers (1) and (3). This course aims at familiarizing students with the social factors and dynamics of contemporary ethno-cultural communities in Canada. Topics may include the immigration process and settlement; community development, structures, and organizations; the ethnic family; socio-economic status and achievement; cultural continuity and change; minority-majority relations and relations with other ethno-cultural communities.

NOTE: Students who have received credit for ANTH 381 may not take this course for credit.

SOCI 383 *Consumer Society* (3 credits)

Prerequisite: See N.B. number (1). This course considers the historical emergence of consumerism in advanced industrial economies and continues to examine the developing characteristics of consumer societies in the present. Topics include the role of consumer goods in mediating social status and personal or collective identities, the relationship of consumerism to present ecological concerns, and the role of advertising and promotional discourse in the creation of new habits and expectations in everyday life.

NOTE: Students who have received credit for this topic under a SOCI 398 number may not take this course for credit.

SOCI 384 *(also listed as ANTH 384)****Food and Sustainability*** (3 credits)

Prerequisite: See N.B. numbers (1) and (3). This course critically examines the existing food system by asking whether it is economically, socially and ecologically sustainable. It explores the politics of food by introducing students to existing and emerging social movements whose goal is to build a more sustainable food system.

NOTE: Students who have received credit for ANTH 384 or for this topic under an ANTH 398 or SOCI 398 number may not take this course for credit.

SOCI 398 *Selected Topics in Sociology* (3 credits)**SOCI 399 *Selected Topics in Sociology*** (6 credits)

Prerequisite: See N.B. number (1). Specific topics for these courses are stated in the Undergraduate Class Schedule and the Departmental Handbook.

SOCI 402 *Contemporary Sociological Theory* (3 credits)

Prerequisite: See N.B. number (2); SOCI 300. This course examines contemporary sociological theory. It focuses on how sociologists synthesize concepts from different sociological schools and disciplines (interactionism, phenomenology, functionalism, conflict theory, critical theory, political and moral philosophy) into general theories that seek to explain how social action, structure, the self, symbolic order, communication, technology, and social division are produced and reproduced in modern and postmodern societies.

NOTE: Students who have received credit for SOCI 408 may not take this course for credit.

SOCI 403 *Contemporary Cultural Theory* (3 credits)

Prerequisite: See N.B. number (2); SOCI 300. This course examines a variety of approaches and area studies (poststructuralism, deconstruction, postcolonialist and cultural studies). It looks at how they shift contemporary sociological theory toward a focus on relations between discourse, knowledge, and power, and toward a critical reflection on cultural systems and institutions. The emphasis is on theories that seek to explain and understand the emergence of cultural politics in modern and postmodern societies.

NOTE: Students who have received credit for SOCI 408 may not take this course for credit.

SOCI 404 *Sociology of Literature* (3 credits)

Prerequisite: See N.B. number (2). This course examines literature as a social practice and cultural artifact that is embedded in and shapes the emotional orientations, beliefs, behaviours, power relations, and material reality of readers. Issues may include the active role of readers in the production of texts' meanings and emotional effects, the social forces involved in the appeal or condemnation of popular genres and in the banning or canonization of specific works, the development of literary fiction as a field, and the rise of the novel as a modern literary form.

SOCI 405 *(also listed as ANTH 405)****Cultural Imperialism*** (3 credits)

Prerequisite: See N.B. numbers (2) and (3). This course offers a critical investigation of theoretical work of cultural imperialism and is useful for exploring some prominent cultural and media theories in both sociology and anthropology. The course focuses particularly on the intersections of culture, media, and international relations. Students examine the role of propaganda in foreign policy; ownership and control over media production and distribution; questions of assimilation, acculturation, and resistance; theories of technological determinism and the critiques they have provoked; and cargo cults. A broad range of case studies dealing with the arts, news reporting, consumption, and knowledge production in academia is also considered.

NOTE: Students who have received credit for ANTH 405 or for this topic under an ANTH 498 or SOCI 498 number may not take this course for credit.

SOCI 406 *Sociology of Knowledge* (3 credits)

Prerequisite: See N.B. number (2). This course examines a variety of theories of the relation of knowledge and belief to social contexts.

SOCI 409 *Honours Seminar* (6 credits)

Prerequisite: See N.B. number (2); SOCI 410 or 415 previously or concurrently; and permission of the honours advisor. This course involves the student formulating an honours research proposal, and the research and writing of an honours paper.

SOCI 410 *Research Design and Analysis* (6 credits)

Prerequisite: See N.B. number (2); SOCI 310. This course looks at quantitative methods of data collection and analysis. Topics include experimental and quasi-experimental design, principles of measurement, survey design, secondary data sources, techniques of multivariate analysis, and interpretation.

SOCI 415 *Field Research* (6 credits)

Prerequisite: See N.B. number (2); SOCI 310. This course provides the opportunity for advanced qualitative research methods. Students are taught systematic procedures for the collection of primary data using methods that include participant-observation and formal and informal interviewing, survey research, and library research.

NOTE: Students who have received credit for SOCI 313, 314, 315 or ANTH 315 may not take this course for credit.

SOCI 421 *Sociology of Emotions* (3 credits)

Prerequisite: See N.B. number (2). This course explores the dynamic relationship between social and emotional life. Emotional experience is understood to emerge through interaction, to orient social action, and to form the basis of social order and social change. Topics may include forms of suffering and well-being, health and illness, personal appearance, social movements, self-help, consumption, identity, popular culture, and campaigns of fear and desire.

NOTE: Students who have received credit for this topic under a SOCI 498 number may not take this course for credit.

SOCI 424 *Applied Social Statistics* (3 credits)

Prerequisite: See N.B. number (2); successful completion of SOCI 213 and 310. This course explores statistical tools and techniques commonly used in sociological research, and provides an opportunity to work with large databases. The sessions are designed in an applied manner with weekly hands-on applications and/or case studies using the Statistical Package for the Social Sciences (SPSS) program.

NOTE: Students who have received credit for this topic under a SOCI 498 number may not take this course for credit.

SOCI 428 *Capitalism and Crisis* (3 credits)

Prerequisite: See N.B. number (2). This course offers an advanced study of the contemporary dimensions of capitalist society from an approach known as political economy, emphasizing the interconnectedness of those areas of social life that are conventionally differentiated as the economy, politics and culture. The course focuses on the dynamics of *crisis* — the breakdown of socio-economic systems — and investigates crisis, in its various expressions, as a built-in dynamic of capitalist societies.

NOTE: Students who have received credit for this topic under a SOCI 498 number may not take this course for credit.

SOCI 430 *(also listed as ANTH 430)****Development Debates*** (3 credits)

Prerequisite: See N.B. numbers (2) and (3). This course considers the systematic reduction of poverty and powerlessness at individual and societal levels. Several development problems are examined, including national debt crisis, population growth, urbanization, and various degrees of state withdrawal from regulating the market. Special emphasis is given to case studies from major regions of the Third World on the varied impact of development on gender relations and on the eradication of social and economic inequalities.

NOTE: Students who have received credit for ANTH 430 may not take this course for credit.

SOCI 433 *(also listed as ANTH 433)****Theories of Identity*** (3 credits)

Prerequisite: See N.B. numbers (2) and (3). This course discusses theories of difference, pluralism, exclusion, nationalism, and racism within broader frameworks such as citizenship, multiculturalism, diaspora or transnationalism. This course will therefore review related theories of identity as these are currently addressed within anthropology/sociology and related disciplines.

NOTE: Students who have received credit for ANTH 433 may not take this course for credit.

SOCI 434 *Sociology of Suicide* (3 credits)

Prerequisite: See N.B. number (2). This course reviews the important body of literature on suicide since Durkheim's foundational study, with a particular focus on the sociological writings. The course also provides an overview of the key features of contemporary suicide in Canada, including the emergence of youth suicide and suicide among First Peoples.

NOTE: Students who have received credit for this topic under a SOCI 498 number may not take this course for credit.

SOCI 437 *Social Movements* (3 credits)

Prerequisite: See N.B. number (2). The nature, emergence, and dynamics of organized collective behaviour and social movements are examined in light of classical and contemporary theories. The course focuses on the impact of leadership, organizational resources, and discontent with institutionalized social relations on social movements. Contemporary social movements in Quebec, the rest of Canada, and the U.S. serve as illustrations.

SOCI 441 *(also listed as ANTH 441)****Material Culture*** (3 credits)

Prerequisite: See N.B. numbers (2) and (3). The focus of this course is the study of material objects and technologies and their role in the production of everyday social life and culture.

NOTE: Students who have received credit for ANTH 441 may not take this course for credit.

SOCI 445 *Sociology of Labour Movements* (3 credits)

Prerequisite: See N.B. number (2). This course analyzes the origins and development of labour movements as well as contemporary characteristics of union organizations within the context of their social, political, and economic environments. Emphasis is placed on Canada and Quebec.

SOCI 449 (also listed as ANTH 449)***The Culture of Touch*** (3 credits)

Prerequisite: See N.B. numbers (2) and (3). This course examines social practices involving touch, a basic medium for human interaction. Topics may include gender differences in the use of touch, how children are handled across cultures, the medical applications of touch in diverse traditions, the tactile dimensions of urban design, and humans' contact with and impact on the natural world.

NOTE: Students who have received credit for ANTH 449 or for this topic under an ANTH 498 or SOCI 498 number may not take this course for credit.

SOCI 450 (also listed as ANTH 450)***Social Economy and Sustainable Futures*** (3 credits)

Prerequisite: See N.B. numbers (2) and (3). This course introduces a number of emerging alternative models of social economy that envision sustainable global futures in contrast to the current model of neoliberal globalization.

NOTE: Students who have received credit for ANTH 450 or for this topic under an ANTH 498 or SOCI 498 number may not take this course for credit.

SOCI 451 *Citizenship, Eros and the City* (3 credits)

Prerequisite: See N.B. number (2). This course invites students to explore the relation between classic and contemporary texts in the field of social and political thought. The three interrelated areas of study include Citizenship, Eros and the City. The course explores diverse theories of democracy, community, love, and civil society. The integrating theme for these three areas is public and private relationships in the city.

SOCI 453 *Media Sociology and Journalism* (3 credits)

Prerequisite: See N.B. number (2). This course invites students to participate in developing a media sociology that situates journalism in broad social-historical contexts. In addition to an introduction to media sociologies, the course explores current changes in journalism practices and the impact of digital culture on information, news and public life.

NOTE: Students who have received credit for this topic under a SOCI 498 number may not take this course for credit.

SOCI 460 *Sociology of Fear and Risk* (3 credits)

Prerequisite: See N.B. number (2). This course explores the subjective, moral, cultural, and embodied dimensions of the individual experience and social production of fear. It considers the role of fear in processes of social ordering and change, emotional socialization, and emotion management. Risk is examined as a dominant form of fear structured by the contemporary relationship to danger and security in Western societies.

SOCI 462 (also listed as ANTH 462)***The New Imperialism*** (3 credits)

Prerequisite: See N.B. numbers (2) and (3). This research seminar brings into focus the anthropology and sociology of contemporary empire-building. Topics may include nation-building, global and domestic counterinsurgency, "humanitarian intervention," the ideologies of militarism, the militarization of the social sciences and the broader society, the national security state, soft power, the media and information operations, hegemony and capital accumulation.

NOTE: Students who have received credit for ANTH 462 or for this topic under an ANTH 498 or SOCI 498 number may not take this course for credit.

SOCI 464 (also listed as ANTH 464)***Advanced Studies in Law and Society*** (3 credits)

Prerequisite: See N.B. numbers (2) and (3). Law and society studies is an interdisciplinary field that seeks to understand the meaning of law and its role/effects in society. It draws variously on legal scholarship, sociological and anthropological theory, as well as empirical research in the social sciences. This course covers material from each of these domains, with a focus on issues such as the use of violence, the management of diversity, and the use of law as a tool for social change.

NOTE: Students who have received credit for ANTH 464 or for this topic under an ANTH 498 or SOCI 498 number may not take this course for credit.

SOCI 474 (also listed as ANTH 474)***The Body Social*** (3 credits)

Prerequisite: See N.B. numbers (2) and (3). This course examines the social roles of the body. Topics include body image and self-esteem, the symbolism of beauty and ugliness, height, hair, dress, the face, body language, health and fitness, eating and drinking patterns. The subject is considered in anthropological and sociological perspectives.

NOTE: Students who have received credit for ANTH 474 may not take this course for credit.

SOCI 475 (also listed as ANTH 475)***Men and Masculinities*** (3 credits)

Prerequisite: See N.B. numbers (2) and (3). This course is a review of the various and changing roles of men, the meanings of masculinity across cultures and the emerging men's movements. In a dialogue with feminism, the course moves towards humanism.

NOTE: Students who have received credit for ANTH 475 may not take this course for credit.

SOCI 476 *Contemporary Feminist Thought* (3 credits)

Prerequisite: See N.B. number (2). This course examines contemporary feminist theories and the role of the feminist theorist in society. Focusing in particular on debates and perspectives since the latter part of the 20th century, the course addresses issues such as gender, equality, difference, identity, intersectionality, and power.

SOCI 483 *(also listed as ANTH 483)*

Nationalism and Racism (3 credits)

Prerequisite: See N.B. numbers (2) and (3). Nationalism and racism are modern social phenomena. This course investigates the social conditions for their emergence and their political implications. Attention is given to case studies exemplifying these sociological developments.

NOTE: Students who have received credit for ANTH 483 or for this topic under an ANTH 498 or SOCI 498 number may not take this course for credit.

SOCI 484 *(also listed as ANTH 484)*

Surveillance Studies (3 credits)

Prerequisite: See N.B. numbers (2) and (3). This course considers many facets of surveillance in daily life. Emphasizing sociological and anthropological approaches, topics may include communications surveillance, surveillance in schools and the workplace, surveillance in medical care and public health settings, surveillance in the city, and surveillance futures.

NOTE: Students who have received credit for ANTH 484 or for this topic under a SOCI 498 number may not take this course for credit.

SOCI 498 *Advanced Topics in Sociology* (3 credits)

SOCI 499 *Advanced Topics in Sociology* (6 credits)

Prerequisite: See N.B. number (2). Specific topics for these courses are stated in the Undergraduate Class Schedule and the Departmental Handbook.

Programs

ANTHROPOLOGY

60 BA Honours in Anthropology

- 3 ANTH 202^{3*}
- 3 SOCI 212^{3***}
- 6 200-level ANTH credits
- 3 200-level SOCI credits
- 3 ANTH 212³
- 3 ANTH 301³
- 6 ANTH 315⁶
- 15 300- or 400-level ANTH credits
- 6 ANTH 495⁶
- 12 400-level ANTH credits

60 BA Specialization in Anthropology

- 3 ANTH 202^{3*}
- 3 SOCI 212^{3***}
- 6 200-level ANTH credits
- 3 200-level SOCI credits
- 3 ANTH 212³
- 3 ANTH 301³
- 6 ANTH 315⁶
- 33 300- or 400-level ANTH credits (maximum of 18 credits from the 300 level)

60 BA Joint Specialization in Anthropology and Sociology

- 3 ANTH 202^{3*}
- 3 SOCI 203^{**}
- 6 SOCI 212^{3***}, 213³
- 3 ANTH 301³
- 6 SOCI 300⁶
- 6 ANTH 315⁶
- 6 400-level ANTH credits
- 6 400-level SOCI credits
- 21 credits of ANTH and SOCI courses (15 credits chosen from crosslisted courses; maximum of six credits at the 200 level chosen from either crosslisted or non-crosslisted courses)

42	BA Major in Anthropology
3	ANTH 202 ^{3*}
3	200-level ANTH credits
3	200-level ANTH or SOCI credits
3	200-level SOCI credits
3	ANTH 301 ³
6	ANTH 315 ⁶
15	300- or 400-level ANTH credits
6	400-level ANTH credits
30	Minor in Anthropology
3	ANTH 202 ^{3*}
3	200-level ANTH credits
3	200-level ANTH or SOCI credits
3	ANTH 301 ³
15	300-level ANTH credits
3	400-level ANTH credits

*Students exempted from ANTH 202³ are required to take three credits from ANTH 200- or 300-level courses.

**Students exempted from SOCI 203³ are required to take three credits from SOCI 200- or 300-level courses.

***Students exempted from SOCI 212³ are required to take three credits from SOCI 200- or 300-level courses.

Courses

N.B.:

- (1) 300-level courses are open to students who have successfully completed ANTH 202 or equivalent, plus at least three credits of 200-level Anthropology courses.
- (2) 400-level courses are open to students who have successfully completed ANTH 301, plus at least nine credits of 300-level Anthropology courses or permission of the Anthropology advisor.
- (3) Entry requirements for Sociology/Anthropology crosslisted courses depend on the discipline through which the course is entered. Once students have taken a crosslisted course under one disciplinary designation they may not take the course under the corresponding designation in the other discipline for credit. A crosslisted SOCI/ANTH course counts as either SOCI or ANTH as needed to satisfy the program requirements regardless of whether the student registered for the course as SOCI or ANTH.

ANTH 202 *Introduction to Culture* (3 credits)

An introduction to the anthropological study of culture. The course begins with a consideration of the concepts, models, and methods used by anthropologists. This is followed by an examination of the many ways in which peoples of the world, past and present, have organized the activities, institutions, and belief systems that sustain social life. The course concludes with a discussion of the relevance of cultural anthropology to contemporary issues.

ANTH 203 *Culture and Biology* (3 credits)

This course focuses on the interrelationship between culture and human biology. The course examines current debates about evolutionary theory, human origins, the dispersal of the human species, and human adaptations occurring with agriculture in the Holocene and industrialization in the Anthropocene. In addition, issues of human variation and cultural adaptation allow a critical examination of how biology makes culture possible and how culture influences the direction of biological evolution.

ANTH 204 *Indigenous Peoples of North America* (3 credits)

Focusing primarily on the Indigenous peoples of Canada, this course examines the ecological, economic, social, and religious aspects of Indigenous cultures. A representative society from each geographic area of Canada is studied. This course is primarily ethnographic in emphasis, but it also seeks to provide some of the social and historical background necessary to understand the current situation of Indigenous communities.

ANTH 212 *Elements of Ethno-Linguistics* (3 credits)

This is an introductory course which explores the relationship between language and culture, and the use of language in society. Major issues and debates in linguistic anthropology and in the sociology of language are examined.

ANTH 221 *Symbolic Anthropology* (3 credits)

This course examines alternative theoretical approaches to the study of the role of symbols in society. The course is devoted to a consideration of the contributions of structural, psychoanalytic, and interpretive anthropology.

ANTH 230 (*also listed as SOCI 230*)

***Race and Ethnic Relations* (3 credits)**

Prerequisite: See N.B. number (3). Race and ethnicity are examined as bases of social differentiation. Ethnic group relations

are analyzed in relation to stratification and the exercise of power. The course includes explorations of the phenomena of discrimination, prejudice, and intergroup accommodation.

NOTE: Students who have received credit for SOCI 230 may not take this course for credit.

ANTH 231 *Culture and Commerce* (3 credits)

This course explores the influence of cultural values on the organization of the production, distribution or marketing, and the consumption of goods and services at both the local and global levels of the world economy. It also examines the social and environmental impact of the globalization of the consumer society.

ANTH 252 *(also listed as SOCI 252)*

***Food and Culture* (3 credits)**

Prerequisite: See N.B. number (3). This course is an introduction to the study of food from a cultural perspective. Themes may include a) archaeology of food production (domestication of plants and animals); b) class, cuisine, and the development of taste; c) food symbolism; and d) the political economy of food and hunger.

NOTE: Students who have received credit for SOCI 252 or for this topic under an ANTH 298 or SOCI 298 number may not take this course for credit.

ANTH 255 *The Caribbean: History and Political Economy* (3 credits)

As an introduction to the social and cultural history of the Caribbean, primarily since 1492, this course focuses on the diverse cultures of the region, the development and legacy of the political economy of plantation society, as well as empire and globalization, resistance and rebellion, decolonization, cultural creolization and the broad struggle for Caribbean freedom.

NOTE: Students who have received credit for this topic under an ANTH 298 number may not take this course for credit.

ANTH 270 *Anthropology and Contemporary Issues* (3 credits)

This course examines contemporary world issues from a cross-cultural perspective. Discussion ranges from a critical examination of anthropological concepts and methods to a consideration of some of the practical or applied uses of anthropology. Specific topics include the consequences of underdevelopment, modernization, and the place of folk cultures and tradition in an increasingly global society.

ANTH 272 *Comparative Culture* (3 credits)

This course is a general introduction to social and cultural anthropology. It examines the ways in which anthropologists use the comparative method to understand cultures in their unity and diversity. The focus is upon reading ethnographies.

ANTH 276 *(also listed as SOCI 276)*

***Gender and Society* (3 credits)**

Prerequisite: See N.B. number (3). This course explores the social construction of gender categories both historically and in the present. The focus is upon examining the various theoretical perspectives which attempt to explain the ways in which society has organized "masculine" and "feminine" as the basis for social inequalities.

NOTE: Students who have received credit for SOCI 276 may not take this course for credit.

ANTH 277 *(also listed as SOCI 277)*

***Contemporary Issues in Economy, Society, and Biodiversity* (3 credits)**

Prerequisite: See N.B. number (3). This course explores the contemporary intersection of economic, societal, and ecological dynamics in capitalist societies while providing students with tools to understand and explain the historical embeddedness of these processes. Offering a comprehensive introductory view of these issues, the course deploys a multidisciplinary socio-anthropological approach that also incorporates insight from geography, environmental sciences, and political science.

NOTE: Students who have received credit for SOCI 277 or for this topic under an ANTH or SOCI 298 number may not take this course for credit.

ANTH 285 *(also listed as HIST 285/POLI 285/SOCI 285)*

***Introduction to Law and Society* (3 credits)**

Prerequisite: See N.B. number (3). This interdisciplinary course examines the roles law plays in Canada and internationally, from the perspectives of history, political science, anthropology, sociology, and philosophy.

NOTE: Students who have received credit for HIST 285, POLI 285, or SOCI 285, or for this topic under an ANTH 298, HIST 298, POLI 298, or SOCI 298 number, may not take this course for credit.

ANTH 298 *Selected Topics in Anthropology* (3 credits)

ANTH 299 *Selected Topics in Anthropology* (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule and the Departmental Handbook.

ANTH 301 *History of Anthropological Thought* (3 credits)

Prerequisite: See N.B. number (1). This course provides students with a historical overview of anthropological theory. Through the study of original theoretical and ethnographic texts, students engage with the interplay between theory and ethnography and recognize the continued relevance of canonical debates to the contemporary discipline.

NOTE: Students who have received credit for ANTH 311 or 312 may not take this course for credit.

ANTH 302 *Art, Aesthetics, and Anthropology* (3 credits)

Prerequisite: See N.B. number (1). This course examines the relationship between art and society. It is mainly concerned with analyzing how art may function as a means of signifying and perpetuating a given social order. Examples of artistic practice are drawn from diverse North and South American, African, and Melanesian cultures.

ANTH 303 *(also listed as SOCI 303)****Indigenous Resurgence*** (3 credits)

Prerequisite: See N.B. number (1) and (3). Through a selection of case studies from the Americas, Australia, and New Zealand, this course focuses on contemporary indigenous political struggles, cultural resurgence, race and identity, language revival, urbanization, transnational organization, indigenous media, and debates concerning tradition.

NOTE: Students who have received credit for SOCI 303 may not take this course for credit.

ANTH 305 *Culture and History* (3 credits)

Prerequisite: See N.B. number (1). This course analyzes some of the ways "history" has been understood both in our own and other cultures, including history as legitimating charter, as repeating cycle, as a scientific inquiry, as a series of unique events, and as a basis for ethical judgments.

ANTH 307 *Understanding Myths* (3 credits)

Prerequisite: See N.B. number (1). This course presents a survey of current anthropological theories of the nature and function of myths. The course also analyzes competing interpretations of some classic Western myths, and concludes with an examination of mythmaking in contemporary Western culture.

ANTH 315 *Field Research* (6 credits)

Prerequisite: See N.B. number (1). This course provides the opportunity to study and practise qualitative research methods as they are used by anthropologists. Students learn systematic procedures for the collection of primary data using methods that include participant-observation and formal and informal interviewing.

NOTE: Students who have received credit for SOCI 315 may not take this course for credit.

ANTH 319 *(also listed as SOCI 319)****Socio-Environmental Issues*** (3 credits)

Prerequisite: See N.B. numbers (1) and (3). This course provides a comprehensive introduction to the main environmental issues and dilemmas affecting contemporary societies around the world, as well as the necessary sociological and anthropological tools to understand and tackle these challenges.

NOTE: Students who have received credit for SOCI 319 may not take this course for credit.

ANTH 322 *(also listed as SOCI 322)****Popular Culture in the Middle East*** (3 credits)

Prerequisite: See N.B. numbers (1) and (3). This course examines areas of contestation between such social forces in the Middle East as the state, elders, women, and youth as they seek to control and define popular culture and everyday practices which have become highly politicized. Contested domains to be considered include mass media, dance and music, art, rituals, sexuality, and clothing, and their implications for the people and societies involved.

NOTE: Students who have received credit for ANTH 323 or SOCI 322, or for this topic under an ANTH 398 or SOCI 398 number, may not take this course for credit.

ANTH 324 *Peoples and Cultures of the Pacific Islands* (3 credits)

Prerequisite: See N.B. number (1). This course presents an overview of the peoples and cultures of the Pacific Islands, with particular emphasis on Melanesia. In addition to studying the peopling of the Pacific, the course delves into a range of classic anthropological topics, and addresses contemporary issues of gender, migration, and urbanization.

ANTH 325 *Magic, Science, Religion, and Ideology* (3 credits)

Prerequisite: See N.B. number (1). This course analyzes belief systems and their attendant rituals and practices. The focus is on how anthropologists differentiate between magic, science, religion, and ideology, and how anthropologists understand the relationship between belief systems and reality.

ANTH 326 *Peoples and Cultures of Sub-Saharan Africa* (3 credits)

Prerequisite: See N.B. number (1). The course gives a broad historical and geographical survey of the region, and discusses, through case studies, older and contemporary topics, debates, and issues of African anthropology.

ANTH 332 *Health, Illness and Healing in Cross-Cultural Perspective* (3 credits)

Prerequisite: See N.B. number (1). This course explores beliefs and practices surrounding illness and healing across various cultures. A range of issues is examined, including, for example, social and cultural constructions of the body, disease causation, ethnomedicine, healing efficacy, biomedical technology, ethics, medical pluralism, global health, and the impact of a globalized medical/pharmaceutical industry. The course involves engagement with both theoretical and practical questions.

ANTH 343 (also listed as SOCI 343)**Media Ethnographies** (3 credits)

Prerequisite: See N.B. numbers (1) and (3). Focusing on mass media (radio, television, cinema, print), this course considers how ethnographic approaches to media production and consumption may alter, or sometimes reinforce, dominant understandings of the impact of media. A range of theories of the social and cultural impacts of mass media, as well as ethnographic perspectives on audiences in everyday life are explored.

NOTE: Students who have received credit for SOCI 343 or for this topic under an ANTH 398 or SOCI 398 number may not take this course for credit.

ANTH 345 (also listed as SOCI 345)**Movement and Travel** (3 credits)

Prerequisite: See N.B. numbers (1) and (3). Drawing on contemporary interdisciplinary studies of mobility, this course examines the processes, policies, and issues that may be common to different categories of travel and movement as well as those that can distinguish between them.

NOTE: Students who have received credit for SOCI 345 or for this topic under an ANTH 398 or SOCI 398 number may not take this course for credit.

ANTH 349 (also listed as SOCI 349)**Youth: Anthropological and Sociological Perspectives** (3 credits)

Prerequisite: See N.B. numbers (1) and (3). This course brings anthropological and sociological perspectives to bear on the ways in which youths view and interact with each other and the world.

NOTE: Students who have received credit for SOCI 349 or for this topic under an ANTH 398 or SOCI 398 number may not take this course for credit.

ANTH 352 (also listed as SOCI 352)**Population and Environment** (3 credits)

Prerequisite: See N.B. numbers (1) and (3); SOCI 212. Population and environment have become two of the most contested areas for theory, research, policy and public action. The course critically examines the pillars of the population and the environment discourses with attention to differences between developed and developing countries. It provides an overview of the evolution of demands for population control to a common acceptance of a reproductive rights perspective. Similarly, the course focuses on current debates on environment and the management of the global commons from both the industrialized and developing countries' perspectives.

NOTE: Students who have received credit for SOCI 352 may not take this course for credit.

ANTH 353 (also listed as SOCI 353)**Questioning Community** (3 credits)

Prerequisite: See N.B. numbers (1) and (3). Community is a term that appears frequently in academic as well as everyday language but it is used to convey a wide variety of meanings. This course provides a critical review of some of the groupings, feelings, claims, ideas as well as types and qualities of relationships that can be associated with community. Can such an ambiguous term still be analytically useful?

NOTE: Students who have received credit for SOCI 353 or SCPA 353 may not take this course for credit.

ANTH 355 (also listed as SOCI 355)**Urban Regions** (3 credits)

Prerequisite: See N.B. numbers (1) and (3). This course reviews the work of anthropologists and sociologists in cities. The focus is on the social organization of social life in First and Third World urban spaces. Consideration is also given to the particular dynamics of fieldwork in urban settings.

NOTE: Students who have received credit for SOCI 355 or SCPA 355 may not take this course for credit.

ANTH 361 Kinship and Relatedness (3 credits)

Prerequisite: See N.B. number (1). This course examines the changing significance of kinship in anthropology as well as in people's lives and covers classic and contemporary approaches to kinship through ethnographic examples from across the world. Topics discussed may include descent, incest, sex and marriage; feminist and queer critiques; and the influence of globalization, new media and reproductive technologies on relatedness.

ANTH 363 (also listed as SOCI 363)**Law and Society** (3 credits)

Prerequisite: See N.B. numbers (1) and (3). This course situates the study of law in a historical, philosophical, and cross-cultural perspective. It explores numerous issues of relevance to the legitimacy of contemporary Western legal systems, such as the relationship between law and morality, the idea of right prior to good, and the nature of legal reasoning. It may also involve an examination of the kinds of institutions found in place of courts in non-Western societies.

NOTE: Students who have received credit for SOCI 363 may not take this course for credit.

ANTH 375 (also listed as SOCI 375)**Social Construction of Sexualities** (3 credits)

Prerequisite: See N.B. numbers (1) and (3) or enrolment in the Major or Minor in Interdisciplinary Studies in Sexuality. This course

provides a cross-cultural, interdisciplinary approach to the study of human sexuality. There are three major components. One explores the validity of contemporary sexual beliefs and attitudes. Another focuses on the extent to which sexual beliefs and behaviours are socially organized. A third provides an introduction to theories which examine how biological and/or social forces shape our sexual lives.

NOTE: Students who have received credit for SOCI 375 may not take this course for credit.

ANTH 377 *Visual Anthropology* (3 credits)

Prerequisite: See N.B. number (1). In looking at the history of ethnographers' visual documentation of non-Western peoples as well as indigenous self-representations, this course primarily concerns itself with power and the development of professional anthropology, focusing on photography and film. It explores paradigms and case studies in the history of visual anthropology by highlighting the stylistic, social scientific, commercial, and political agendas that influence the production of visual documents.

Starting with colonial exhibitions of "exotic natives," the course progresses to classic and contemporary ethnographic film with a focus on Curtis, Flaherty, Mead, Gardner, Rouch, and MacDougall.

NOTE: Students who have received credit for this topic under an ANTH 398 number may not take this course for credit.

ANTH 378 *(also listed as SOCI 378)*

The Family (3 credits)

Prerequisite: See N.B. numbers (1) and (3). This course examines the family as an institution in relation to its evolution from kinship societies up to the present. The course first introduces elementary structures of kinship and examines the family institution in the context of traditional societies. Special attention is devoted to the development of the modern family and to its current transformation.

NOTE: Students who have received credit for SOCI 378 may not take this course for credit.

ANTH 379 *Cross-Cultural Perspectives on Gender* (3 credits)

Prerequisite: See N.B. number (1). The course explores through different theoretical perspectives and ethnographic examples, cross-cultural differences in sex/gender systems. A comparative analysis of gender relations in band, tribal, and state societies is undertaken. Topics discussed include the sexual division of labour, the cultural and social construction of gender, and the impact of economic development.

NOTE: Students who have received credit for SOCI 379 may not take this course for credit.

ANTH 380 *(also listed as SOCI 380)*

Contemporary Issues in Human Rights (3 credits)

Prerequisite: See N.B. numbers (1) and (3). The course develops, through case analysis, insight into the differing priorities and competing concepts of human rights and human dignity in "non-Western" cultural traditions as well as in "Western" societies.

It explores the significance of religious and other ideological positions in the use and abuse of human rights by governments, extra-governments, international bodies, as well as the general public. The course also examines topics such as women's human rights, sexuality and human rights, and human rights in development, the limits of sovereignty, and state accountability.

NOTE: Students who have received credit for SOCI 380 may not take this course for credit.

ANTH 381 *(also listed as SOCI 381)*

Ethnic Communities in Canada (3 credits)

Prerequisite: See N.B. numbers (1) and (3). This course aims at familiarizing students with the social factors and dynamics of contemporary ethno-cultural communities in Canada. Topics may include the immigration process and settlement; community development, structures, and organizations; the ethnic family; socio-economic status and achievement; cultural continuity and change; minority-majority relations and relations with other ethno-cultural communities.

NOTE: Students who have received credit for SOCI 381 may not take this course for credit.

ANTH 384 *(also listed as SOCI 384)*

Food and Sustainability (3 credits)

Prerequisite: See N.B. numbers (1) and (3). This course critically examines the existing food system by asking whether it is economically, socially and ecologically sustainable. It explores the politics of food by introducing students to existing and emerging social movements whose goal is to build a more sustainable food system.

NOTE: Students who have received credit for SOCI 384 or for this topic under an ANTH 398 or SOCI 398 number may not take this course for credit.

ANTH 385 *Globalization and Transnationality* (3 credits)

Prerequisite: See N.B. number (1). Globalization has been used generally to denote the increasingly rapid and far-flung circulation of people, money, commodities, and images around the world. This course introduces students to a sample of issues covered by anthropologists and sociologists in respect to this process, while at the same time also exploring transnational social networks that cross state borders but are not necessarily global in scope.

NOTE: Students who have received credit for SOCI 385 may not take this course for credit.

ANTH 398 *Selected Topics in Anthropology* (3 credits)

ANTH 399 *Selected Topics in Anthropology* (6 credits)

Prerequisite: See N.B. number (1). Specific topics for these courses are stated in the Undergraduate Class Schedule and the Departmental Handbook.

ANTH 405 (also listed as SOCI 405)**Cultural Imperialism** (3 credits)

Prerequisite: See N.B. numbers (2) and (3). This course offers a critical investigation of theoretical work of cultural imperialism and is useful for exploring some prominent cultural and media theories in both sociology and anthropology. The course focuses particularly on the intersections of culture, media, and international relations. Students examine the role of propaganda in foreign policy; ownership and control over media production and distribution; questions of assimilation, acculturation, and resistance; theories of technological determinism and the critiques they have provoked; and cargo cults. A broad range of case studies dealing with the arts, news reporting, consumption, and knowledge production in academia is also considered.

NOTE: Students who have received credit for SOCI 405 or for this topic under an ANTH 498 or SOCI 498 number may not take this course for credit.

ANTH 420 Psychological Anthropology (3 credits)

Prerequisite: See N.B. number (2). This course examines and critiques the theoretical concepts of Western academic and folk psychology from the perspective of the psychologies of other cultures. Topics considered include the cultural construction of the emotions, personality development, perception, culture-bound psychiatric syndromes (such as windigo psychosis, amok), and altered states of consciousness, and indigenous theories of dream interpretation.

ANTH 423 Political Anthropology (3 credits)

Prerequisite: See N.B. number (2). This course examines the political process and political organization in cross-cultural perspective. The focus is on how order is achieved in the absence of the state, as well as questions of leadership, power, and authority in different social contexts.

ANTH 424 Experiments and Experience in Ethnographic Writing (3 credits)

Prerequisite: See N.B. number (2). This course examines debates that stemmed from the postmodern critique of representation in anthropology in the mid-1980s. This critique has highlighted new politics for the writing of ethnographic texts, as well as raised a number of epistemological questions relating to the ontological status of truth. The course focuses on recent experiments in ethnographic writing and on dynamics of fieldwork experience.

NOTE: Students who have received credit for ANTH 422 may not take this course for credit.

ANTH 425 Religions in the 21st Century (3 credits)

Prerequisite: See N.B. number (2). This course examines the contemporary roles of religion as systems of meaning, a focus of social claims, and as elements of self-expression. This discussion is set within the historical trajectories of instances of globalization, such as colonization and the spread of world religions, conversions to Christianity and liberation theories, the politicization of Islam, or the emergence of New Age religions as new forms of identity.

ANTH 427 Thinking Beyond Humans (3 credits)

Prerequisite: See N.B. number (2). This course begins with the premise that in order to fully understand the impact that people have had on the world around us, it is necessary to start by seriously questioning the idea of the "human." The course is an opportunity to explore emerging themes in anthropological research, from environmental studies to cybernetics alongside key works of philosophy, literature and social science in the "post-humanist" tradition.

NOTE: Students who have received credit for this topic under an ANTH 498 number may not take this course for credit.

ANTH 430 (also listed as SOCI 430)**Development Debates** (3 credits)

Prerequisite: See N.B. numbers (2) and (3). This course considers the systematic reduction of poverty and powerlessness at individual and societal levels. Several development problems are examined, including national debt crisis, population growth, urbanization, and various degrees of state withdrawal from regulating the market. Special emphasis is given to case studies from major regions of the Third World on the varied impact of development on gender relations and on the eradication of social and economic inequalities.

NOTE: Students who have received credit for SOCI 430 may not take this course for credit.

ANTH 431 Neo-Marxism and Cultures (3 credits)

Prerequisite: See N.B. number (2). This course analyzes the relationships between economy and cultural systems. The first section is devoted to the concept of economic base and superstructure in the industrial world; the second section focuses on selected case studies of non-industrial cultures and industrial cultures. The course concludes with an appraisal of the quality of economic life in non-industrial cultures.

ANTH 433 (also listed as SOCI 433)**Theories of Identity** (3 credits)

Prerequisite: See N.B. numbers (2) and (3). This course discusses theories of difference, pluralism, exclusion, nationalism, and racism within broader frameworks such as citizenship, multiculturalism, diaspora or transnationalism. This course will therefore review related theories of identity as these are currently addressed within anthropology/sociology and related disciplines.

NOTE: Students who have received credit for SOCI 433 may not take this course for credit.

ANTH 440 Culture, Language, and Mind (3 credits)

Prerequisite: See N.B. number (2); ANTH 212. This course looks at the relationship between linguistics and anthropology, and examines some of the issues in the linkage between language, culture, and thought.

ANTH 441 (also listed as SOCI 441)**Material Culture** (3 credits)

Prerequisite: See N.B. numbers (2) and (3). This course studies material objects and technologies and their role in the production of everyday social life and culture.

NOTE: Students who have received credit for SOCI 441 may not take this course for credit.

ANTH 444 International Indigenism (3 credits)

Prerequisite: See N.B. number (2). This course reviews, examines and critically assesses the international indigenous peoples' movement and the articulation of indigenous identities, rights, communities and politics from a global perspective.

NOTE: Students who have received credit for this topic under an ANTH 498 number may not take this course for credit.

ANTH 449 (also listed as SOCI 449)**The Culture of Touch** (3 credits)

Prerequisite: See N.B. numbers (2) and (3). This course examines social practices involving touch, a basic medium for human interaction. Topics may include gender differences in the use of touch, how children are handled across cultures, the medical applications of touch in diverse traditions, the tactile dimensions of urban design, and humans' contact with and impact on the natural world.

NOTE: Students who have received credit for SOCI 449 or for this topic under an ANTH 498 or SOCI 498 number may not take this course for credit.

ANTH 450 (also listed as SOCI 450)**Social Economy and Sustainable Futures** (3 credits)

Prerequisite: See N.B. numbers (2) and (3). This course introduces a number of emerging alternative models of social economy that envision sustainable global futures in contrast to the current model of neoliberal globalization.

NOTE: Students who have received credit for SOCI 450 or for this topic under an ANTH 498 or SOCI 498 number may not take this course for credit.

ANTH 462 (also listed as SOCI 462)**The New Imperialism** (3 credits)

Prerequisite: See N.B. numbers (2) and (3). This research seminar brings into focus the anthropology and sociology of contemporary empire-building. Topics may include nation-building, global and domestic counterinsurgency, "humanitarian intervention," the ideologies of militarism, the militarization of the social sciences and the broader society, the national security state, soft power, the media and information operations, hegemony and capital accumulation.

NOTE: Students who have received credit for SOCI 462 or for this topic under an ANTH 498 or SOCI 498 number may not take this course for credit.

ANTH 463 Current Debates in Kinship (3 credits)

Prerequisite: See N.B. number (2). From its inception, the anthropological investigation of kinship has been centred around organization and regulation of so-called biological facts such as procreation and genetic relatedness or "consanguinity." The course examines how international adoption, new reproductive technologies, and gay and lesbian kinship reshape the way people think about kinship.

ANTH 464 (also listed as SOCI 464)**Advanced Studies in Law and Society** (3 credits)

Prerequisite: See N.B. numbers (2) and (3). Law and society studies is an interdisciplinary field that seeks to understand the meaning of law and its role/effects in society. It draws variously on legal scholarship, sociological and anthropological theory, as well as empirical research in the social sciences. This course covers material from each of these domains, with a focus on issues such as the use of violence, the management of diversity, and the use of law as a tool for social change.

NOTE: Students who have received credit for SOCI 464 or for this topic under an ANTH 498 or SOCI 498 number may not take this course for credit.

ANTH 465 Legal Anthropology (3 credits)

Prerequisite: See N.B. number (2). This course analyzes the legal system as an institutionalized system of social control and meanings, using historical and comparative data. Special attention is given to the study of the interface of law and other areas of sociological inquiry, including social change, conflict, and decision-making.

ANTH 471 Food and Social Change (3 credits)

Prerequisite: See N.B. number (2). This advanced course explores the links between socio-cultural change and changes in food patterns, practices and ideologies, from theoretical and ethnographic perspectives. Topics may include the relationships of food changes to technology, migration, everyday life, taste, ethics and globalization.

ANTH 472 Childhood and Youth (3 credits)

Prerequisite: See N.B. number (2). This course examines the increasingly diverse field of anthropological research on children and youths. This field of interest has recently been expanded to consider a wide range of arenas in which children and youth may be implicated across the world, such as consumption, mobility, media, work, and conflict.

NOTE: Students who have received credit for SOCI 472 may not take this course for credit.

ANTH 474 (also listed as SOCI 474)
The Body Social (3 credits)

Prerequisite: See N.B. numbers (2) and (3). This course examines the social roles of the body. Topics include body image and self-esteem, the symbolism of beauty and ugliness, height, hair, dress, the face, body language, health and fitness, eating and drinking patterns. The subject is considered in anthropological and sociological perspectives.

NOTE: Students who have received credit for SOCI 474 may not take this course for credit.

ANTH 475 (also listed as SOCI 475)
Men and Masculinities (3 credits)

Prerequisite: See N.B. numbers (2) and (3). This course is a review of the various and changing roles of men, the meanings of masculinity across cultures and the emerging men's movements. In a dialogue with feminism, the course moves towards humanism.

NOTE: Students who have received credit for SOCI 475 may not take this course for credit.

ANTH 477 Elites, Privilege and Relative Advantage (3 credits)

Prerequisite: See N.B. number (2). This course reviews the analytical and comparative challenges posed by the study of the elites such as scientists, entrepreneurs, and politicians. More modest forms of relative advantage and privilege are also addressed.

NOTE: Students who have received credit for this topic under an ANTH 498 number may not take this course for credit.

ANTH 479 Feminism and Anthropology (3 credits)

Prerequisite: See N.B. number (2). This course explores the dialogue between feminist theory and anthropology. Topics discussed include "feminist standpoint" theory and the critique of "objectivity" in feminist philosophy of science; feminist contributions to the historical development of anthropological theory; and the relationship between feminism and postmodernism in current debates on ethnography and fieldwork.

ANTH 483 (also listed as SOCI 483)
Nationalism and Racism (3 credits)

Prerequisite: See N.B. numbers (2) and (3). Nationalism and racism are modern social phenomena. This course investigates the social conditions for their emergence and their political implications. Attention is given to case studies exemplifying these sociological developments.

NOTE: Students who have received credit for SOCI 483 or for this topic under an ANTH 498 or SOCI 498 number may not take this course for credit.

ANTH 484 (also listed as SOCI 484)
Surveillance Studies (3 credits)

Prerequisite: See N.B. numbers (2) and (3). This course considers many facets of surveillance in daily life. Emphasizing sociological and anthropological approaches, topics may include communications surveillance, surveillance in schools and the workplace, surveillance in medical care and public health settings, surveillance in the city, and surveillance futures.

NOTE: Students who have received credit for SOCI 484 or for this topic under a SOCI 498 number may not take this course for credit.

ANTH 495 Honours Essay (6 credits)

Prerequisite: See N.B. number (2); ANTH 315; and permission of the honours advisor. Under the supervision of an Anthropology staff member, the student prepares an honours essay on a subject chosen in consultation with and approved by the professor.

ANTH 498 Advanced Topics in Anthropology (3 credits)

ANTH 499 Advanced Topics in Anthropology (6 credits)

Prerequisite: See N.B. number (2). Specific topics for these courses are stated in the Undergraduate Class Schedule and the Departmental Handbook.

THEOLOGICAL STUDIES

Section 31.330

Faculty

Chair

MARIE-FRANCE DION, PhD *Université de Montréal*; Associate Professor

Professors

ANDRÉ GAGNÉ, PhD *Université de Montréal/Université Catholique de Louvain*

LUCIAN TURCESCU, PhD *University of St. Michael's College (in the University of Toronto)*

Associate Professors

CHRISTINE JAMIESON, PhD *Saint Paul University, Ottawa*

JEAN-MICHEL ROESSLI, PhD *Université de Fribourg/École Pratique des Hautes Études, Sorbonne*

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus

Annex D

514-848-2424, ext. 2475

Department Objectives

Theology builds a bridge between religious experience and human society. To expand understanding of the human person and of God, the Department seeks to make accessible to all its students an immense tradition of knowledge — especially through interpretation theory, historical analysis, psychological insight, and theoretical elaboration. The Department is dedicated to training professional theologians and researchers while expanding the horizons of those who wish to appreciate their heritage.

Programs

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

Students must have their programs approved by the Department.

Students will be admitted to the Certificate in Pastoral Care with the permission of the Department. Admission will be based on the number of available places and upon evaluation of the candidates' letter of intent and an interview dealing with their educational background and community experience.

All courses in the Department are open to any qualified student of Concordia.

60 BA Honours in Theological Studies

3 THEO 393³

18 THEO 201³, 202³, 203³, 204³, 205³, 206³

3 Chosen from THEO 301³, 302³, 303³, 304³ (*Old Testament*)

3 Chosen from THEO 311³, 315³, 317³ (*New Testament*)

3 Chosen from THEO 320³, 322³ (*History*)

3 Chosen from THEO 212³, 331³, 333³, 337³ (*Systematics*)

3 Chosen from THEO 351³, 353³ (*Ethics*)

3 Chosen from THEO 236³, 242³, 243³, 245³, 291³, 347³, 403³ (*Spirituality*)

12 THEO 406³, 408³, 410³, 460³

3 Chosen from cognate courses in Classics, History, Philosophy, Psychology, Religion, Sociology, in consultation with the honours advisor. Students, in consultation with the honours advisor, may choose a course in another cognate discipline.

6 Chosen from courses in the ancient and/or modern languages of Classical Greek, Biblical Greek (THEO 495, 496), Biblical Hebrew (THEO 492, 493), Modern Hebrew, Latin, French, German, Italian, Spanish, in consultation with the honours advisor

NOTE: With the permission of the Department, three credits in a cognate discipline may be substituted for a THEO elective.

- 42 BA Major in Theological Studies**
- 18 THEO 201³, 202³, 203³, 204³, 205³, 243³
 3 Chosen from THEO 301³, 302³, 303³, 304³ (*Old Testament*)
 3 Chosen from THEO 311³, 315³, 317³ (*New Testament*)
 3 Chosen from THEO 206³, 320³, 322³ (*History*)
 3 Chosen from THEO 212³, 331³, 333³, 337³ (*Systematics*)
 3 Chosen from THEO 351³, 353³ (*Ethics*)
 3 Chosen from THEO 236³, 242³, 245³, 291³, 347³, 403³ (*Spirituality*)
 6 Chosen from any of the Theology offerings

NOTE: With the permission of the Department, three credits in a cognate discipline may be substituted for a THEO elective.

24 Minor in Theological Studies

- 12 THEO 201³, 202³, 203³, 204³
 12 Chosen from other Theology offerings

30 Certificate in Pastoral Care

- 15 THEO 202³, 205³, 402³; AHSC 230³; PSYC 230³ or 333³
 3 Chosen from THEO 311³, 315³, 317³
 3 Chosen from THEO 206³, 320³, 322³
 3 Chosen from THEO 212³, 233³, 331³, 333³, 337³
 3 Chosen from THEO 204³, 351³, 353³
 3 Chosen from THEO 236³, 242³, 243³, 245³, 291³, 347³, 404³

Courses

THEO 201 *Introduction to Theological Studies* (3 credits)

This course introduces students to the history, sources, and basic structure of Christian theology. A survey of certain interrelationships between theology and other disciplines is provided as well as an introduction to contemporary approaches to God and topics such as Jesus Christ, sin, and redemption.

THEO 202 *Introduction to Biblical Studies* (3 credits)

This course provides a survey of the contents of the Bible, from Genesis to Revelation, and a practical introduction to the skills required to understand biblical texts. Attention is paid to diverse approaches to interpretation which are used in historical, literary, or theological study of the Bible.

THEO 203 *Introduction to New Testament* (3 credits)

This course deals with the writings of the New Testament with an emphasis on both content and form. As well, students are introduced to the socio-political, economic, and cultural backdrops within which earliest Christianity arose and began to spread.

THEO 204 *Introduction to Christian Ethics* (3 credits)

This course is an introduction to the field of ethics in the context of Christian faith. Christian ethics is presented as an active quest towards understanding and guiding Christian moral living. There is a brief presentation of the historical background to Christian ethics, an exploration of the points of convergence with other religious traditions, as well as the interrelationship between morality and freedom. The course will include a reflection on the problem of evil as a diminishment of persons and societies as well as a section on moral development and moral maturity.

THEO 205 *Introduction to Christian Spirituality* (3 credits)

The characteristics of Christian spirituality, its roots in scripture, the balance between contemplation and action, its communal dimension, its attitude to the world, are analyzed through the study of a selection of men and women whose lives exemplify various aspects of Christian spirituality over the past two thousand years. The course examines notions of transcendence and immanence, individuality and collectivity, nature and the divine.

THEO 206 *Introduction to Christian Origins* (3 credits)

This course is a study of the historical origins of the Church with a view to understanding the creative originality of the Christian tradition. It explores possibilities for the rethinking of contemporary Christianity in light of the common sources of diverse Christian traditions.

THEO 212 *Faith, Reason and the Religious Sense* (3 credits)

This course investigates the basic human search for meaning and value in the context of the variety of models of revelation. It considers how religious experience is understood in the light of the psychology of religion and faith.

THEO 226 *Theology and Myth* (3 credits)

This course is a comparative study of mythology. The focus is on the role of myths in Christian theology, e.g. creation myths, origins of humanity, salvation myths, and others.

THEO 228 (*also listed as IRST 228*)
Celtic Christianity (3 credits)

This course follows a historical line to show the connections of the pre-Christian Celtic beliefs with the early Christian Church of Celtic countries. It focuses on the spirituality of the Celtic people in the context of Celtic history and culture.

NOTE: Students who have received credit for IRST 228 may not take this course for credit.

THEO 233 *Religious Pluralism in a Secular Culture* (3 credits)

This course focuses on the relationships between religion, pluralism, and secular culture. It deals specifically with secularization, secularism and theological responses that are rooted in historical discourses of church/state relations.

THEO 234 *Pilgrim Bodies, Sacred Journeys* (3 credits)

This course examines the history, politics, and spirituality of transformative journey in both theory and practice. Interdisciplinary exploration of a diversity of sources, including sacred texts and secular literature, art, architecture and music, as well as contemporary pop culture, facilitates a meaningful understanding and experience of pilgrimage as a growing postmodern phenomenon with an ancient global history. This course offers the opportunity for individual and group fieldwork, investigating the material, corporeal and performative dimensions of theology.

NOTE: Students who have received credit for LOYC 230 or for this topic under a LOYC 298 number may not take this course for credit.

THEO 236 *Spirituality: Personal, Social and Religious Dimensions* (3 credits)

This course focuses on the phenomenon of spirituality as a personal and social response to the human quest for self-integration and self-transcendence. It examines the roles of both religious tradition and secular culture in shaping approaches to the spiritual journey. Consideration of the characteristics of Christian spiritual traditions is complemented by reflection upon the meaning and variety of spiritualities present in the pluralistic postmodern culture.

THEO 238 *Theology in Film* (3 credits)

This course examines a series of films to uncover their theological preoccupations, motives, and questions. Methods of analyses are discussed, in conjunction with screenings of selected films.

THEO 242 *Theology and the Arts* (3 credits)

This course explores a wide variety of ancient, modern, and contemporary artistic media — painting, sculpture, architecture, glass, music, literature, and multimedia — in order to uncover a theological understanding of artistic activity. It investigates the ways in which artists explore apprehensions of transcendence and the artistic imagination.

THEO 243 *Indigenous Spirituality* (3 credits)

This course explores Indigenous spirituality through its various epistemologies (ways of knowing) and axiologies (ways of acting). A key component of the course is studying the emerging field of Indigenous methodologies. Students encounter some of the many expressions of Indigenous spirituality, as it is concretely embedded in all aspects of existence (physical, emotional) and in all our relations, that is, to the land, to human and non-human animals, and to the spirit-imbedded world surrounding us. Consideration is also given to the relationship between Indigenous and non-Indigenous spiritualites and methodologies.

THEO 245 *The Creative Self* (3 credits)

This course helps students explore their own creative processes in order to come to a deeper appreciation of the infinite human capacity for creation, and thus, self-transcendence. It considers the cognitive dimensions of the creative processes, their ethical aspects, their expression in human action, and their impact on ultimate value and meaning.

THEO 291 *The Icon: Theology in Colour* (3 credits)

The icon is both a theological medium and a theological message. The first is expressed by design, the latter by colour. The study of the icon offers the student an opportunity to explore theological meaning through image and symbolism as well as concept and reasoning.

THEO 295 *Theology and Women* (3 credits)

This course explores the emergence of a body of scholarly writing by women theologians. It looks at their questions and the critiques of traditional theological doctrines and interpretations, as well as suggesting different hermeneutical approaches to exegesis, theology, and history.

THEO 298 *Selected Topics in Theological Studies* (3 credits)

THEO 299 *Selected Topics in Theological Studies* (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

THEO 301 *The Pentateuch* (3 credits)

The objective of this course is to familiarize students with the first five books of the Bible, known as the Pentateuch. The course considers literary criticism pertaining to the composition of the Pentateuch, its themes, and their theological meanings.

THEO 302 *Historiographies in the Hebrew Bible* (3 credits)

Beginning with an introduction to biblical historiographies, this course discusses the Deuteronomistic historiography (Joshua, Judges, Books of Samuel, Books of Kings) and compares it to the historiography of Ezra/Nehemiah and Chronicles. Literary and theological issues are discussed throughout the course.

THEO 303 *Themes in the Hebrew Bible* (3 credits)

This course studies in depth the roots and developments of particular biblical traditions. It focuses on the history of different interpretations of such specific biblical themes as divine election, covenants, promises, worship, and sacrifices.

THEO 304 *Prophetic and Wisdom Literature in the Hebrew Bible* (3 credits)

This course introduces the prophetic, wisdom, and deuterocanonical books of the Hebrew Bible. Topics discussed are literary genres, historical contexts, and theological themes, as well as the phenomenon of prophecy in the ancient Near East, the historical settings for the biblical prophetic and wisdom literature, the language, and the message of these biblical books.

THEO 311 *Johannine Literature* (3 credits)

This course offers an in-depth study of the Gospel of John and the three letters of John. The differences between the Johannine school of thought and the Synoptic tradition (Matthew, Mark, and Luke) with respect to christology, faith, salvation, and the role of the spirit are examined.

THEO 315 *Gospels and Acts* (3 credits)

This course is an introduction to the texts and teachings of the four canonical Gospels and to the Acts of the Apostles.

THEO 317 *The Pauline Letters* (3 credits)

This course is an introduction to Paul and his letters. In studying these writings, students engage in close examination of parts of the text (exegesis) and also discover the history and context of earliest Christianity.

THEO 319 *Gnosticism and the New Testament* (3 credits)

This course introduces various Gnostic texts which are then compared and contrasted with the canonical Gospels of the New Testament. Themes such as salvific knowledge, cosmogony and creation, anthropogony, Christology, and soteriology are also considered from a comparative perspective.

NOTE: Students who have received credit for this topic under a THEO 298 number may not take this course for credit.

THEO 320 *History of Christianity: The Medieval Period* (3 credits)

This course explores the history of Christianity from the fall of the Western Roman Empire in the fifth century to the beginning of the Renaissance in the 15th century. The diverging experiences of the churches in East and West are studied, with attention to the development of Christian beliefs, art, philosophy, and institutions, and the major religious and political figures who influenced these developments.

THEO 322 *History of Christianity: Reformation and Modernity* (3 credits)

This course explores the history of Christianity from the reformation through to the closing decades of the 20th century, with special attention given to the Protestant Reformation and to the impact of the Enlightenment on the theology, institutions, ethics, and intellectual life of modern Christians.

THEO 324 *Roman Catholicism* (3 credits)

This course offers an introduction to the contemporary Roman Catholic experience, and includes a treatment of the historical origins of Catholicism, its worship and liturgy, its spirituality, and its role in society and culture.

THEO 331 *The Christian Understanding of God* (3 credits)

This course examines the classical presentation of Christian belief in God as a Trinity of divine persons through its biblical origins and historical development. It also examines modern theological reflection on this classical view, including perspectives from non-Western cultural contexts.

THEO 333 *Jesus Christ in History and Faith* (3 credits)

This course studies the biblical and later traditions about the person, nature, and work of Christ in the Christian tradition. Texts studied include the Bible, theological texts from a variety of historical periods as well as some literary and artistic presentations of Christ.

THEO 337 *The Christian Sacraments* (3 credits)

This course examines the history, symbols, and images of ritual and liturgical communication in Christianity, especially in baptism and eucharist. These "mysteries," as the Christian sacraments were originally called, are studied in the context of a Christian life.

THEO 343 *(also listed as POLI 389)*

Religion and Politics (3 credits)

Focusing on the relationship between church, state, and democracy, this course examines the intersection of religion and politics by studying the connections between moral values and political beliefs in different settings around the world. It explores how religious beliefs have shaped politics and have impacted democratization, education, and citizenship. At the same time, it reflects on the way in which politics has affected religious life and religious organizations.

NOTE: Students who have received credit for POLI 389 or for this topic under a POLI 398 number may not take this course for credit.

THEO 347 *Spirituality of Aging* (3 credits)

This course deals with the spirituality of aging through a number of important themes: mid-life crises, intergenerational conflicts, sexuality, theology of the body, relationships, death and dying.

THEO 351 *Applied Ethical Issues* (3 credits)

This course provides students with a method for ethical deliberation and explores ethical issues challenging contemporary society such as euthanasia, health care, the economy, and scientific and technological advances.

THEO 353 *Theology and Bioethics* (3 credits)

This course presents major frameworks for examining issues in bioethics and explores case studies to familiarize students with ethical issues in the biomedical context. Ethical issues in health care and research involving human subjects in light of a theological perspective on life, death and moral existence are explored.

THEO 393 *Philosophical Foundations of Christian Theology* (3 credits)

Prerequisite: 24 credits. This survey course investigates the philosophical outlook and language of theological doctrines and Christian thinkers in various historical periods. Questions of truth, meaning, and goodness are examined in light of Christian interpretations of Plato and Aristotle. Contemporary topics at the intersection of philosophy and theology, such as human sexuality, political philosophy, and scientific theories, are also treated.

NOTE: Students who have received credit for THEO 293 may not take this course for credit.

THEO 398 *Selected Topics in Theological Studies* (3 credits)

THEO 399 *Selected Topics in Theological Studies* (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

NOTE: All 400-level Theology courses have as their prerequisite an appropriate 300-level Theology course, or its equivalent, with permission of the Department.

THEO 402 *Pastoral Care* (3 credits)

This course introduces students to the history and theology of pastoral care. Particular attention is given to theological sources and spiritual resources available to the minister in a variety of pastoral settings.

THEO 403 *Ignatian Spirituality: Theory and Method* (3 credits)

This course provides students with theoretical and methodological grounding in Ignatian spirituality specifically and in the academic study of Christian spirituality in general. The course introduces students to the Spiritual Exercises of St. Ignatius, situating the Exercises both in their historical context and within interpretations in contemporary culture. The goal of the course is to prepare students to engage in the role of directing spiritual exercises, to facilitate students' understanding of the dynamics of the exercises and to explore the underlying anthropology and theology of the Ignatian exercises.

THEO 404 *Practicum in Pastoral Care* (3 credits)

Prerequisite: THEO 402 and permission of the Department. This course complements THEO 402 as the internship and field exploration of a particular pastoral ministry. It will be supervised by experts or experienced individuals in the various fields of ministry, e.g. eldercare, bereavement, hospital, school, youth ministries, and others.

THEO 406 *Scriptural Exegesis* (3 credits)

Prerequisite: THEO 202 or 203; THEO 301. This course initiates students in the historical-critical methodology used in the study of the Bible and familiarizes them with biblical research tools.

THEO 408 *Classical Theological Texts: Reading and Interpretation* (3 credits)

Prerequisite: THEO 201; THEO 331 or 333 or 337, or permission of the Department. This course provides students with the interpretive skills that permit critical responses to texts. Classical texts are analyzed in terms of the elements of context, structure, form, and content. The course covers classical theological writings from the fourth to the 20th century.

THEO 410 *Honours Tutorial* (3 credits)

Prerequisite: Permission of the Department; enrolment in the honours program. This course provides students with background studies in central theological issues and writers. Students prepare an annotated bibliography as part of the requirements of the course.

THEO 460 *Honours Essay* (3 credits)

Prerequisite: THEO 410 previously or concurrently; permission of the Department; enrolment in the honours program. Each student works with an individual faculty member in a particular area of theological studies to produce a research paper of about 40 pages in length.

THEO 492 *Biblical Hebrew I* (3 credits)

No prior knowledge of the Hebrew language is necessary. With a view to reading and comprehending simple biblical narratives in Hebrew, students learn the rudiments of Biblical Hebrew from the alphabet, vocabulary, and the basic grammar.

THEO 493 *Biblical Hebrew II* (3 credits)

Prerequisite: THEO 492. This course continues the objectives of Biblical Hebrew I. With a view to reading and comprehending simple biblical narratives in Hebrew, students learn problematic verb forms, grammatical constructions, and text linguistics. By the end of this course students are able to read, analyze, and translate biblical narratives.

THEO 495 *Biblical Greek I* (3 credits)

This is an introductory course to Greek Koine. No prior knowledge of the Greek language is necessary. It provides the student with a basic understanding of New Testament Greek.

THEO 496 *Biblical Greek II* (3 credits)

Prerequisite: THEO 495. This course builds on the material presented in Biblical Greek I. By the end of the course, students will be able to analyze and translate biblical texts.

THEO 497 *Selected Topics in Theological Studies* (3 credits)

THEO 498 *Selected Topics in Theological Studies* (3 credits)

THEO 499 *Advanced Topics in Theological Studies* (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

CO-OPERATIVE EDUCATION

Section 31.515

The Institute for Co-operative Education offers a number of work-integrated learning opportunities to students in the Faculty of Arts and Science. Work-integrated learning is a model of experiential learning that bridges the academic program and the world of work. It provides students with the opportunity to combine study with paid work terms in their chosen fields.

Co-op options are available in the following departments:

Biology
Chemistry and Biochemistry
Economics
Études françaises
Journalism
Mathematics and Statistics
Physics
Political Science
Sociology and Anthropology

(Please refer to §24 of this Calendar and the appropriate units for additional information.)

Acting Principal and Permanent Fellow

WILLIAM BUKOWSKI, PhD Michigan State University; Professor

Permanent Fellows

JARRETT CARTY, PhD University of Notre Dame; Professor

IVANA DJORDJEVIC, PhD McGill University; Associate Professor

GEOFFREY C. FIDLER, PhD McGill University; Associate Professor

ARIELA FREEDMAN, PhD New York University; Professor and Vice-Principal

MARK RUSSELL, PhD University of Cambridge; Associate Professor

KATHARINE STREIP, PhD University of California, Berkeley; Associate Professor

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus

Annex RR, Room: 103

514-848-2424, ext. 2565

Objectives

The Liberal Arts College, a small community of fellows and students, provides a unique liberal arts emphasis within the Faculty of Arts and Science. Built on a core of eight courses, the multidisciplinary curriculum is designed to guide students in exploring the foundations and development of Western civilization and culture. The aim is to foster the major values of the Western tradition — those of critical thinking and respect for intellectual freedom.

The major goal of Liberal Arts College is to assist the student in the process of becoming an educated person. The College seeks to translate into modern idioms the traditional vision of education as a preparation for life. Its core courses and seminars, sharing a common concern with the changing nature of society and culture, aim at the development of an informed critical consciousness. Emphasis is also placed on sharpening the basic expressive and analytic tools indispensable to social and cultural understanding. All College students are expected to present, or to acquire, a knowledge of a second language (normally, French), necessary for their research and to write and to express themselves clearly. Training in research techniques is stressed, and original, independent work encouraged.

Liberal Arts College, linking demanding general education to significant specialization, is committed to serious intellectual work. Through its curriculum, staff, standards, and academic environment, it hopes to communicate the excitement and creativity of such engagement to its students.

Liberal Arts College Admission and Program Requirements

Students admitted to the University and seeking to enter the College must have a "B" average from Cegep, or its equivalent. All students upon admission must demonstrate proficiency in English composition and a second language, or undertake necessary make-up work.* All applicants should apply through the Office of the Registrar; they should also call or write the College for an interview. Mature students are admitted to the College on the basis of an interview and an examination of their student record. Full-time degree candidates will normally complete their College core curriculum within three academic years; part-time degree candidates should complete their College core curriculum within six academic years. Students who have been admitted to the departmental honours program must maintain a "B+" average in their College core curriculum; all others must maintain a "C" average in their College core curriculum. All honours students in the College are expected to undertake significant original work, on a staff-guided basis, in their final year.

*Les étudiantes et étudiants francophones devront donner la preuve de leur connaissance de la langue anglaise.

Students seeking admission to the honours program may apply either for direct entry on the University application form or, once in the program, to the College's honours advisor normally following the completion of 30 credits.

Staff

Permanent fellows are resident in the College, as is its Principal, who also teaches in the core curriculum.

Facilities

Liberal Arts College is located on Concordia University's downtown Sir George Williams Campus. Its seminar and tutorial teaching is done in the same building that houses the College's Principal and permanent fellows. The College has student study areas, a

course-materials library, and audiovisual facilities, as well as common room and a collection of important newspapers, journals, and periodicals. The College, the focus of an extracurricular program of visiting speakers and cultural events, is a place where the exchange of ideas and views generated in courses and seminars continues on a more informal basis.

Counselling

Close student-faculty contact and exchange is part of the Liberal Arts College's stress on serious intellectual work. Each student is assigned to a faculty fellow who acts as a personal advisor, and who follows the student's progress through the College, advising on the choice of disciplinary or area specialization. All students' work is evaluated annually by the Principal and fellows.

College Council

Council, composed of fellows and students, is the formal decision-making body of Liberal Arts College. It meets regularly, chaired by the Principal, as a forum in which current issues and future policy are discussed and decisions taken. Council is that body which ensures the democratic participation of all members of the College in its ongoing academic and extracurricular work.

Programs

All Liberal Arts College students must take the core curriculum. These interrelated courses constitute a significant segment of the coursework required for College-sponsored BA programs. Liberal Arts College stresses honours-level work, although a student may, with the permission of the College, combine the core curriculum with a departmental specialization or major program, or with the Individual Studies programs.

- 42 Liberal Arts College — Core Curriculum
Stage I
18 LBCL 291⁶, 292⁶, 295⁶
Stage II
18 LBCL 390³ or 392³, 391⁶, 393⁶, 394³ or 395³
Stage III
6 LBCL 490⁶

In addition to completing the core curriculum, students must meet the Faculty of Arts and Science degree requirements and complete a departmental major, specialization, or honours program, or the Individual Studies program, or the Major in Liberal Arts.

The core curriculum may also be applied towards specialization or honours work in the Individual Studies program. (See §31.170 of this Calendar).

All College students must consult with a College advisor before selecting courses in other disciplines or fields. Generally, courses in the Liberal Arts College are open only to members of the College.

Honours candidates must maintain a GPA of 3.30 (B+) in their College courses, with no grade lower than a "C." Students in a major or specialization program must maintain a "C" average in their College courses, with no grade lower than a "D."

- 60 BA Honours in Liberal Arts
Stage I
18 LBCL 291⁶, 292⁶, 295⁶
Stage II
18 LBCL 390³ or 392³, 391⁶, 393⁶, 394³ or 395³
Stage III
12 LBCL 490⁶, 496⁶
6 Chosen from LBCL 494³, 495³, 498³
6 Chosen in consultation with the honours advisor

- 42 BA Major in Liberal Arts
Stage I
18 LBCL 291⁶, 292⁶, 295⁶
Stage II
18 LBCL 390³ or 392³, 391⁶, 393⁶, 394³ or 395³
Stage III
6 LBCL 490⁶

- 30 Minor in Liberal Arts
Stage I
18 LBCL 291⁶, 292⁶, 295⁶
Stage II
12 LBCL 391⁶, 393⁶

The College advises students who are enrolled in the BA Major in Liberal Arts to take, in addition, some form of concentrated study (e.g. major, minor) within a single department or field of study.

Further information on core courses and College programs generally may be obtained either by writing for the Liberal Arts College Informational Brochure or by calling the Liberal Arts College. Personal interviews with a fellow of Liberal Arts College may be arranged through the secretary.

Admission into a departmental honours program requires the approval of the Department.
Admission into the College's honours program requires the approval of the College.

Students seeking admission to a departmental or College honours program will be bound by the honours requirements outlined in §16.2.4 of this Calendar.

Courses

LBCL 201 Great Books: Western History and Thought from Antiquity through the Renaissance (3 credits)

Social and political theory are central, and art, music, and scientific thought are represented. Key texts may include the *Bible*, Plato's *Republic*, Thucydides' *Peloponnesian Wars*, St. Augustine's *City of God*, and Machiavelli's *Prince* and *Discourses*.

NOTE: Students who have received credit for LBCL 291 or 292 may not take this course for credit.

LBCL 202 Great Books: Western Culture and Expression from Antiquity through the Renaissance (3 credits)

Literature, religion, and philosophy are central, and art and music are represented. Key texts may include Homer's *Odyssey*, Virgil's *Aeneid*, Montaigne's *Essays*, and Shakespeare's *King Lear*.

NOTE: Students who have received credit for LBCL 291 or 292 may not take this course for credit.

LBCL 203 Great Books: Western History and Thought from the Reformation through Modernity (3 credits)

Social and political theory are central, and art, music, and scientific thought are represented. Key texts may include Calvin's *Institutes*, Descartes' *Discourses on Method*, Hobbes' *Leviathan*, and Mill's *Essay on Liberty*.

NOTE: Students who have received credit for LBCL 291 or 292 may not take this course for credit.

LBCL 204 Great Books: Western Culture and Expression from the Reformation through Modernity (3 credits)

Literature, religion, and philosophy are central, and art and music are represented. Key texts may include Milton's *Paradise Lost*, Rousseau's *Confessions*, Stendhal's *The Red and the Black*, and Nietzsche's *Genealogy of Morals*.

NOTE: Students who have received credit for LBCL 291 or 292 may not take this course for credit.

LBCL 291 Structure and Dynamics of Western Civilization I (6 credits)

Prerequisite: Registration in the Liberal Arts College, or permission of the College. This course emphasizes the intellectual, cultural, and political traditions from the Biblical period and classical antiquity to the mid-17th century. Texts studied are related to changing social and historical contexts. Primary sources may include *Genesis*, Plato, *Republic*, Marcus Aurelius, *Meditations*, Thomas Aquinas, *Summa Theologica*, Machiavelli, *Prince and Discourses*, and Hobbes, *Leviathan*.

LBCL 292 Modes of Expression and Interpretation I (6 credits)

Prerequisite: Registration in the Liberal Arts College, or permission of the College. A study of major Western literary, religious, and philosophical traditions, involving the reading and interpretation of significant texts from antiquity to the mid-17th century. Emphasis is placed on development of writing skills and interpretative analysis. Primary texts may include Homer, *Odyssey*, Plato, *Symposium*, Augustine, *Confessions*, Dante, *The Divine Comedy*, and Cervantes, *Don Quixote*.

LBCL 295 History of Art (6 credits)

Prerequisite: Registration in the College, or permission of the College. This course is an integrated study of the nature of the visual arts from antiquity to the 20th century. Artistic expression is examined through chronological and thematic approaches, with attention to the relation between art and society.

LBCL 298 Liberal Arts College Selected Topics (3 credits)

LBCL 299 Liberal Arts College Selected Topics (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

LBCL 390 History of Music: Ancient to Classical (3 credits)

Prerequisite: LBCL 291; LBCL 292; LBCL 295; or permission of the College. This course introduces developments in the history of European music from antiquity to the 18th century. Course content includes musical structure, period styles, and selected works by major composers, setting these within their historical contexts.

NOTE: Students who have received credit for LBCL 396 may not take this course for credit.

LBCL 391 Structure and Dynamics of Western Civilization II (6 credits)

Prerequisite: LBCL 291; LBCL 292; LBCL 295; or permission of the College. This course emphasizes the intellectual, cultural, and political traditions from the mid-17th century to 1914. Texts studied are related to changing social and historical contexts. Primary texts may include Spinoza, *Theological Political Treatise*, Locke, *Second Treatise of Government*, Rousseau, *The Social Contract*, Wollstonecraft, *A Vindication of the Rights of Woman*, Marx, *Capital*, and Nietzsche, *Genealogy of Morals*.

LBCL 392 *History of Music: Classical to Contemporary* (3 credits)

Prerequisite: LBCL 291; LBCL 292; LBCL 295; or permission of the College. This course introduces developments in the history of European music from the 18th century to the present day. Course content includes musical structure, period styles, and selected works by major composers, setting these within their historical contexts.

NOTE: Students who have received credit for LBCL 396 may not take this course for credit.

LBCL 393 *Modes of Expression and Interpretation II* (6 credits)

Prerequisite: LBCL 291; LBCL 292; LBCL 295; or permission of the College. A study of major Western literary, religious and philosophical traditions from the mid-17th century to 1914. Primary texts may include Stendhal, *The Red and the Black*, Diderot, *Le neveu de Rameau*, Goethe, *Faust*, Nietzsche, *Thus Spoke Zarathustra*, and Baudelaire, *Les fleurs du mal*.

LBCL 394 *The History of Science: Antiquity to the Renaissance* (3 credits)

Prerequisite: LBCL 291; LBCL 292; LBCL 295; or permission of the College. This course explores the history of science from antiquity to the Renaissance. Primary sources may include Aristotle, *Physics*, Plato, *Timaeus*, and Copernicus, *On the Revolution of the Heavenly Spheres*.

NOTE: Students who have received credit for LBCL 397 may not take this course for credit.

LBCL 395 *The History of Science: Early Modern to Contemporary* (3 credits)

Prerequisite: LBCL 291; LBCL 292; LBCL 295; or permission of the College. This course emphasizes the nature of modern science from the scientific revolution to the present day. Primary sources may include Darwin, *Origin of the Species*, Galileo, *Dialogue Concerning the Two Chief World Systems*, Bacon, *Advancement of Learning*, and Einstein, *Relativity*.

NOTE: Students who have received credit for LBCL 397 may not take this course for credit.

LBCL 398 *Liberal Arts College Selected Topics* (3 credits)**LBCL 399 *Liberal Arts College Selected Topics*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

LBCL 490 *The 20th Century: Forms, Themes, Critiques* (6 credits)

Prerequisite: LBCL 391; LBCL 393; or permission of the College. This course emphasizes key issues in contemporary society and culture. Major 20th-century texts and documents — philosophical, literary, political, and artistic, as well as analytical materials drawn from history and the social sciences, are read. Primary sources may include de Beauvoir, *The Second Sex*, Woolf, *To the Lighthouse*, Levi, *Survival in Auschwitz*, Hayek, *The Road to Serfdom*, Heidegger, *Being and Time*, as well as theorists such as Foucault, Lévi-Strauss, Barthes, and Derrida.

LBCL 491 *Integrative Seminar* (6 credits)

Prerequisite: Permission of the College. Students who have received credit for LBCL 490 may register for LBCL 491 provided the subject matter is different.

LBCL 494 *Liberal Arts College Special Studies: Antiquity to Renaissance/Reformation* (3 credits)

Prerequisite: Permission of the College. This course addresses a selected field within the chronological period above, emphasizing focused study of specific primary texts, as well as significant works of interpretation as appropriate to the selected field. Themes normally vary on a year-to-year alternating basis, so as to reflect the broad orientations (Structures and Dynamics of Western Civilization, Modes of Expression and Interpretation) which inform the core curriculum.

LBCL 495 *Liberal Arts College Special Studies: 17th Century to the Present* (3 credits)

Prerequisite: Permission of the College. This course addresses a selected field within the chronological period above, emphasizing focused study of specific primary texts, as well as significant works of interpretation as appropriate to the selected field. Themes normally vary on a year-to-year alternating basis, so as to reflect the broad orientations (Structures and Dynamics of Western Civilization, Modes of Expression and Interpretation) which inform the core curriculum.

LBCL 496 *Liberal Arts College Honours Essay Seminar* (6 credits)

Prerequisite: This course is open only to students at the College who have completed Stage II courses at the required academic level of performance. The student works with an individual faculty member in a chosen and approved area of the core curriculum, and must produce a sustained piece of written work approximately 40 pages in length. Students must also participate in an honours seminar in connection with their research and writing.

LBCL 498 *Liberal Arts College Advanced Topics* (3 credits)**LBCL 499 *Liberal Arts College Advanced Topics*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

LOYOLA COLLEGE FOR DIVERSITY AND SUSTAINABILITY

Section 31.525

Principal

JAMES GRANT, PhD *University of Guelph; Professor, Biology*

Distinguished Professor Emeritus

JAMES MOORE, MA *University of Toronto; Political Science*

Fellows

ADEELA ARSHAD-AYAZ, PhD *McGill University; Associate Professor, Education*

MATTHEW BARKER, PhD *University of Wisconsin-Madison; Associate Professor, Philosophy*

WILLIAM BUKOWSKI, PhD *Michigan State University; Professor, Psychology*

AMÉLIE DAOUST-BOISVERT, MA *Université Laval; Assistant Professor, Journalism*

EMMA DESPLAND, PhD *University of Oxford; Professor, Biology*

SATOSHI IKEDA, PhD *Michigan State University; PhD State University of New York at Binghamton; Associate Professor, Sociology and Anthropology*

JOCHEN A. G. JAEGER, Dr.Sc.Nat *ETH Zurich (Swiss Federal Institute of Technology); Associate Professor, Geography, Planning and Environment*

PK LANGSHAW, MFA *Université du Québec à Montréal; Professor, Design and Computation Arts*

SHANNON LLOYD, PhD *Carnegie Mellon University; Assistant Professor, Management*

KIMBERLEY MANNING, PhD *University of Washington; Associate Professor, Political Science*

ELIZABETH MILLER, PhD *University of Washington; Professor, Communication Studies*

ALAN E. NASH, PhD *University of Cambridge; Professor, Geography, Planning and Environment*

KATJA NEVES, PhD *York University; Professor, Sociology and Anthropology*

RAYMOND PAQUIN, DBA *Boston University School of Management; Associate Professor, Management*

DANIEL SALÉE, PhD *Université de Montréal; Professor, Political Science/School of Community and Public Affairs*

ROSEMARIE SCHADE, DPhil *University of York (U.K.)*

JANIS TIMM-BOTTOS, PhD *University of New Mexico; Associate Professor, Creative Arts Therapies*

For the complete list of faculty members, please consult the Department website.

Location

Loyola Campus

Central Building, Room: CC 326

Tel.: 514-848-2424, ext. 2125

Email: loyolacollege.fas@concordia.ca

Objectives

Loyola College for Diversity and Sustainability is designed as a secular college that addresses the academic needs of selected undergraduate students who seek to balance discipline-based instruction with interdisciplinary and cross-disciplinary communication in the arts and sciences. The educational philosophy of the College incorporates several objectives: to integrate international and global perspectives into higher education; to foster understanding of how the individual and society can operate more effectively in a global context of increased intercultural interaction; to develop a literacy of sustainability; to provide the practical tools needed to tackle the major issues facing humanity; to balance discipline-based instruction with interdisciplinary inquiry and cross-disciplinary communication; and to promote responsible citizenship and leadership in the 21st century.

Admission Requirements for Loyola College for Diversity and Sustainability

Students may apply simultaneously to Concordia University and Loyola College for Diversity and Sustainability by selecting "Loyola College for Diversity and Sustainability" from the drop-down menu on the Program(s) tab of the Online Application.

Further information about the College can be obtained by telephone, email, or by visiting the College's offices.

All students registered in the Minor in Diversity and the Contemporary World and the Minor in Sustainability Studies are welcome to become members of the College if they successfully complete three LOYC courses. All other undergraduate students may also join the College if they successfully complete three LOYC courses.

Performance Requirement

Specific performance requirements are outlined for the Minor in Diversity and the Contemporary World and the Minor in Sustainability Studies.

Facilities

Loyola College for Diversity and Sustainability is located on Concordia University's Loyola Campus. The College has student study and lounge areas, a small library, and a conference room, to which all College members have access. The facilities are intended to complement Loyola College for Diversity and Sustainability's role as a community where students have the opportunity to pursue both their academic and extracurricular interests in a supportive and stimulating environment.

Programs

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

24 Minor in Diversity and the Contemporary World

15 Chosen from LOYC 210³, 220³, 230³, 310³, 320³, 330³, 340³

6 Chosen in consultation with a Loyola College for Diversity and Sustainability advisor

3 LOYC 420³

NOTE: The minor is designed for students to combine with an honours, specialization, or major in another discipline.

NOTE: Students must obtain a minimum grade of "B" in all courses counting towards their minor and/or membership in order to continue in the College.

27 Minor in Sustainability Studies

6 BIOL/LOYC 205³; LOYC 320³ recommended to be taken in the first nine credits

9* Chosen from BIOL 226³; CHEM 209³; EXCI 233³; FPST 201³, 203³; GEOG 203³, 204³; LOYC 220³, 240³; PHIL 236³; SCPA 215³; SOCI/ANTH 277³

12* Chosen from BIOL 353³; COMS 372³; ECON 391³; FPST 341³; GEOG 321³; HIST 395³; LOYC 310³, 350³, 420³; MANA 369³, 374³; POLI 394³; SOCI/ANTH 319³, 384³, 450³

**In keeping with the interdisciplinary goals of the minor, students cannot take courses in the same department as their major, specialization, or honours program to fulfill these requirements.*

NOTE: Students are responsible for ensuring they have the necessary prerequisites for courses at the 300 and 400 level.

NOTE: Students must have a cumulative GPA of at least 3.00 in courses taken toward the minor in order to be awarded the minor upon graduation.

15-27 Foundation Year

6 LOYC 201³, 202³

*9-21 ANTH 272³; CHEM 209³; HIST 202³; POLI 205³; RELI 216³; THEO 233³

**Students must obtain permission from the Principal of the Loyola College for Diversity and Sustainability regarding course substitutions. Students who have received credit for these courses within their departmental program may not take these courses for credit toward their Loyola College for Diversity and Sustainability Foundation Year.*

NOTE: The foundation year is designed for students pursuing a 120-credit Extended Credit Program (ECP) in an undergraduate degree.

Courses

LOYC 201 *The Idea of Modernity* (3 credits)

The fundamental ideas and assumption of the modern Western world were formed in the 17th-century European Enlightenment. This course begins with an historical overview of the Enlightenment, followed by an interdisciplinary investigation of the idea of modernity. It focuses on the central modern concepts of a person, society, nature, and good and evil, and looks at some challenges to the idea of modernity. Finally, it explores current pressures that have led to the contemporary form of thought known as postmodernism.

LOYC 202 *What is the Environment?* (3 credits)

The purpose of this course is to explore the broad set of interdependent phenomena that comprise the environments in which people live. These are: a) the natural environment of rocks, air, water, plants, and animals; b) the built environment including characteristics of cities, workplaces, and homes; and c) the cultural environment including the beliefs, attitudes, and institutions that affect how people perceive and behave in the environment.

LOYC 205 *(also listed as BIOL 205)*

***Introduction to Sustainability* (3 credits)**

This course begins with an introduction to the science of ecology and to the concept of sustainability as an ecological principle. The concept of sustainability is then broadened to include humans, as students are introduced to ethics, economics, and resource management from an eco-centric point of view. Students are encouraged to think critically about current environmental problems and to take action on an individual project.

NOTE: Students who have received credit for BIOL 205, 208 or for this topic under a BIOL 298 number may not take this course for credit.

NOTE: Students registered in a Biology program may not take this course for program credit.

LOYC 210 *The 20th Century* (3 credits)

This course provides select coverage of aspects of the historical forces and events that shaped the 20th century. The historical background of issues such as wars and peace, colonialism and postcolonialism, economics and the environment, and questions

about ethnic and national diversity and cultural perception are explored. The course is intended to develop critical thinking together with basic bibliographic and writing skills.

NOTE: Students who have received credit for HIST 283 or for this topic under a HIST 298 number may not take this course for credit.

LOYC 220 *The Contemporary World* (3 credits)

From a variety of perspectives, including historical, environmental, economic, and cultural, this course examines major issues facing the world today. These issues may include international trade and the economy, the regulation of garbage and pollution, the decline in cultural variability, the spread and control of disease, and the effects of mass communication. This course is intended to develop an appreciation of a global view of the challenges which the world is likely to face in the next few decades.

LOYC 230 *Globalization and Diversity* (3 credits)

This course explores the main differences between the world's major cultures, religious beliefs, and philosophies, and addresses the tensions between establishing universal values and maintaining cultural diversity in an age of accelerating globalization. There is also an emphasis on the conception of different levels of social complexity, principally the role of the individual, the interpersonal, and the group within a society. This course is intended to develop team research and presentation skills, and the ability to communicate and work effectively within a small group setting.

LOYC 240 *(also listed as POLI 208)*

Global Environmental Issues and Ecological Justice (3 credits)

This course introduces students to collective action problems faced by governments, international organizations, corporations, advocacy groups, and scientists. Topics may include climate change, biodiversity conservation, hazardous waste disposal, water and food security.

NOTE: Students who have received credit for POLI 208 or 394, or for this topic under a POLI 298 number, may not take this course for credit.

LOYC 298 *Selected Topics in the Loyola College for Diversity and Sustainability* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

LOYC 310 *Science and the Contemporary World* (3 credits)

This course explores the basic issues of the philosophy of science by examining the nature of science as an activity and a way of understanding the world. Cultural variations in the philosophy of science are discussed as well as contemporary disputes involving the interpretation of science: Darwinism; the "Science Wars"; science and religion; and feminist critiques of science. This course is intended to develop critical thinking and analysis, and deductive and inductive reasoning.

LOYC 320 *Biodiversity on Earth* (3 credits)

The current state of biodiversity around the world and the forces that affect this diversity are the main focus of this course. It addresses the origins of this diversity, the advantages of variability in the environment for human life, and the contemporary challenges to this diversity. This course is intended to emphasize holistic thinking and system analysis.

LOYC 330 *Self, Culture, and Development* (3 credits)

This course examines, from a psychological perspective, how the concept of self varies across cultures. Whereas some cultures embrace the concept of the individual, other cultures emphasize the communal nature of social and personal existence. This theme is explored from several perspectives including theory about development, the treatment of "self" in literature, cultural variations in the concept of human rights, and the link between self and society. This course is intended to demonstrate the interface between the medical and social sciences and the analysis of change.

LOYC 340 *Culture and Communication* (3 credits)

This course is an anthropological approach to variations in cultural experience as they relate to communication. Students explore modes of expression and communication, including literature and film, with a view to examining questions of interpretation, aesthetics, and ethical judgment. Personal expression and communication are also discussed. This course is intended to develop an awareness of the role of imagination and creativity in expression and interpretation, and sensitivity to the role of cultural and other differences in processes of communication.

NOTE: Students who have received credit for LOYC 410 may not take this course for credit.

LOYC 350 *Internship in Sustainability* (3 credits)

This course offers students hands-on experience working on a sustainability-related project for approximately 120 hours. This internship course is designed to give students practical experience to complement other courses in the Minor in Sustainability Studies.

NOTE: Students who have received credit for this topic under a LOYC 398 number may not take this course for credit.

LOYC 398 *Selected Topics in the Loyola College for Diversity and Sustainability* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

LOYC 420 *Integrative Project* (3 credits)

Prerequisite: 12 credits of LOYC courses; or permission of the College. This course focuses on the conceptualization of cross-disciplinary inquiry and the intersections of theory and practice. In consultation with a College advisor, this course allows students to acquire the necessary skills to complete a high-level research paper or to complete and report on an internship in the community.

SCHOOL OF IRISH STUDIES

Section 31.530

Principal

MICHAEL KENNEALLY, PhD *University of Toronto; Professor*

Professor

GEARÓID Ó HALLMHURÁIN, PhD *Queen's University Belfast*

Associate Professors

GAVIN FOSTER, PhD *University of Notre Dame*

JANE G. V. MCGAUGHEY, PhD *University of London*

EMER O'TOOLE, PhD *University of London*

Assistant Professor

MÁIRTÍN COILFÉIR, PhD *Trinity College Dublin*

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus

Hall Building, Room: 1001

514-848-2424, ext. 8711

Objectives

The School of Irish Studies offers interdisciplinary programs in the history and culture of Ireland and Irish emigration and settlement, especially in Canada.

Courses in Irish history, literature, politics, language, ethnomusicology, film, theatre, economics, religion, women's studies and popular culture, introduce students to Ireland's rich culture and complex society. Because of the country's unique history, students are also introduced to issues pertinent in other regions of the world, such as colonization and post-colonialism, cultural nationalism, dual linguistic and religious traditions, famine and migration, rebellion and civil war, sectarian conflict and reconciliation, and economic development and globalization. Ireland therefore offers a case study relevant to other cultures and societies.

Students from diverse backgrounds and disciplines are attracted by the interdisciplinary and comparative programs of Irish Studies which prepare them either for graduate studies or to enter the work force in a wide range of fields from cultural production to media, public service to law, or education to international relations. With its own library and meeting room, the School creates an intimate and welcoming intellectual environment which is enhanced by a public lectures series as well as cultural and community events. Scholarships and opportunities to study in Ireland are available to students in the programs.

Programs

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

42 BA Major in Irish Studies

Stage I

12 IRST 203³, 209³; IRST 210³/HIST 212³; IRST/HIST 211³

3 Film, Theatre, Music, Performance: IRST 270³, 343³, 344³, 346³, 347³, 371³, 373³

Stage II

3 IRST 300³

3 History and Diaspora Studies: IRST 303³, 304³; IRST 312³/HIST 330³; IRST 314³, 315³, 316³

3 Literature: ENGL 353³, 355³, 356³, 357³, 358³, 359³; IRST 354³

3 Film, Theatre, Music, Performance: IRST 343³, 344³, 346³, 347³, 371³, 373³

Stage III

3 400-level IRST elective credits

12 IRST elective credits at the 200, 300 or 400 level chosen in consultation with the Irish Studies advisor. At least nine credits must be at the 300 or 400 level

24 Minor in Irish Studies

12 IRST 203³, 209³; IRST/HIST 211³; IRST 270³

12 IRST elective credits

30 Certificate in Irish Studies15 IRST 203³, 209³; IRST/HIST 211³; IRST 270³, 303³

15 IRST elective credits

NOTE: For details on the course descriptions in the programs listed above, please refer to the individual departmental course listings, and the IRST courses listed below.

Irish Studies C.Edge (Career Edge) Option*Director*

MICHAEL KENNEALLY, Professor

The Irish Studies C.Edge option is offered through the Institute for Co-operative Education to students enrolled in the Major in Irish Studies. The C.Edge option is a one-term work opportunity, normally in the summer, for students to apply their knowledge and training acquired through the Irish Studies multidisciplinary program. Students interested in applying for the C.Edge option should refer to §24 where a full description is provided.

Courses**IRST 203 *Introduction to Irish Studies* (3 credits)**

This course is a multidisciplinary introduction to the field of Irish studies, a discipline that embraces a broad range of historical and contemporary issues as they have manifested themselves on the island of Ireland, in Canada and throughout the world. In particular, questions related to individual and national identities in the context of history, language, culture, landscape, and religion are explored and debated.

IRST 205 *(also listed as HIST 213)****The Irish in Montreal* (3 credits)**

Drawing on a diversity of historiographical materials, this interdisciplinary course examines the story of the Irish in Canada with a particular emphasis on Quebec, from the French colonial period through the City of Montreal's golden era of mercantile prominence in the mid-19th century to the break-up of its older Irish neighbourhoods a century later. Starting with the demographics of Irish immigration and settlement, it devotes special attention to social and cultural relations between the Irish and other ethnic groups.

NOTE: Students who have received credit for HIST 213 or for this topic under a HIST or IRST 398 number may not take this course for credit.

IRST 209 *Highlights of Irish Literature* (3 credits)

This course introduces students to the foundational texts and main themes of Irish literary studies by placing key texts and authors in their cultural and literary backgrounds and exploring their resonances through to the present day. Works selected may include those of W.B. Yeats, Samuel Beckett, Seamus Heaney, and Eavan Boland.

NOTE: Students who have received credit for this topic under an ENGL or IRST 398 number may not take this course for credit.

IRST 210 *(also listed as HIST 212)****The Irish in Canada* (3 credits)**

From 17th-century fishermen and traders arriving in Newfoundland to displaced victims of the Famine in the 19th century, to contemporary immigrants from Ireland, the Irish have had a presence in all parts of Canada from the earliest days of settlement. This course examines the emigration and settlement patterns of Irish immigrants in the various regions of Canada across a period of three centuries, paying particular attention to their role in the social, economic, political, cultural, and educational development of Canadian society. The course explores the various strategies by which Irish immigrants both adapted to and transformed the particular host society in which they found themselves, and looks at other immigrant communities as a means of understanding the special contribution of the Irish to Canada.

NOTE: Students who have received credit for HIST 212 or for this topic under a HIST or IRST 398 number may not take this course for credit.

IRST 211 *(also listed as HIST 211)****History of Ireland* (3 credits)**

After establishing some broader historical context, this survey course traces modern Irish history in the 18th, 19th and 20th centuries. Special attention is given to the development of Irish nationalism and relations with Great Britain.

NOTE: Students who have received credit for HIST 211 or for this topic under an IRST 298 number may not take this course for credit.

IRST 228 *(also listed as THEO 228)****Celtic Christianity* (3 credits)**

This course follows a historical line to show the connections of the pre-Christian Celtic beliefs with the early Christian Church of Celtic countries. It focuses on the spirituality of the Celtic people in the context of Celtic history and culture.

NOTE: Students who have received credit for THEO 228 may not take this course for credit.

IRST 230 *Irish Mythology and Folklore* (3 credits)

This course explores Irish culture through folklore and myth — in particular, their manifestations in Irish music, literature, performing arts, and cinema. It addresses the significance of myth and folklore in written and oral history, traditions, and iconography. The course focuses on the forms, functions, and influences of Irish legends, myths, and folktales that attract learned and popular interest in Ireland and abroad.

IRST 233 *The Irish Language and its Culture I* (6 credits)

This course provides a general introduction to Irish linguistic and cultural practices in modern and contemporary Ireland. It explores the principles of the Irish language and introduces students to the language through folklore, song, poetry, film, drama, and storytelling.

NOTE: Students who have received credit for MIRI 290 may not take this course for credit.

IRST 270 *Irish Traditional Music: A Global Soundscape* (3 credits)

Covering a tapestry of cultural history from the ancient Celts to modern mega shows like *Riverdance*, this multidisciplinary course focuses on Irish traditional music performed in Ireland, as well as throughout the world. Drawing on historiographical and ethnomusicological theory, the course uses recordings and documentary films to explore how globalization has interfaced with this traditional genre to create a thriving transnational arena of performance and creativity.

IRST 298 *Selected Topics in Irish Studies* (3 credits)

IRST 299 *Selected Topics in Irish Studies* (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

IRST 300 *Research Methods in Irish Studies* (3 credits)

Prerequisite: IRST 203, 209, 210, 211; IRST 270 or 343 or 344 or 371 or 373; or permission of the Department. Irish Studies span a spectrum of disciplines from the humanities, fine arts and the social and political sciences. Conducting research within this diverse domain requires a broad-based set of applied and theoretical skills. This interdisciplinary course prepares upper-level undergraduates for research in Irish studies, for academic and field situations in Ireland, and in Irish diasporic settings overseas. While cross-disciplinary methodologies are emphasized throughout the course, particular attention is given to research planning and logistics, archival investigation, cross-cultural interviewing, "participant observation" fieldwork training, applied theoretical modelling, and thesis management.

IRST 303 *The Global Irish* (3 credits)

This interdisciplinary course examines the Irish experience of emigration, exile, resettlement, and diaspora, emphasizing the Great Famine and its legacy in shaping Irish communities in Canada and elsewhere. It highlights debates about the impact of the Famine, the significance of Grosse-Île in Irish and Irish-Canadian cultural memory, the relationship between Irish emigration and nationalism, immigrant women and how Irish communities adopted a self-image of exile.

NOTE: Students who have received credit for this topic under a HIST 398 number may not take this course for credit.

IRST 304 *Sexualities in the Irish Diaspora* (3 credits)

This course investigates the rich history that sex and sexual identities have played in shaping the Irish Diaspora over the past 200 years. Representations of Irish sexualities and gendered expectations have been a controversial constant in the story of the Irish abroad and their descendants in the global Irish Diaspora. Key themes may include marriage and divorce, homosexuality, asexuality, racism, virginity, media scandals, heroism, alcoholism, sexual assault, nationalism, propaganda, punishment, gender-bending, and religion.

NOTE: Students who have received credit for this topic under an ANTH 398, HIST 398, IRST 398 or SOCI 398 number may not take this course for credit.

IRST 312 *(also listed as HIST 330)*

The Great Irish Famine (3 credits)

Prerequisite: 24 credits or permission of the Department. This course examines the social, political, economic, and cultural dimensions of the Great Irish Famine. Beginning with a thorough examination of society and politics in the pre-Famine period, the course explores the causes and course of the 1845-50 Famine, with emphasis on social conditions, mass mortality, emigration, and British government responses to conditions in Ireland. The outcomes and long-term consequences of the Famine for Irish society, politics, Anglo-Irish relations, and the Irish Diaspora are also explored. Some attention is also given to historiographical debates and Famine memory.

NOTE: Students who have received credit for HIST 330 or for this topic under a HIST or IRST 398 number may not take this course for credit.

IRST 314 *Independent Ireland from the Civil War to the Celtic Tiger* (3 credits)

This course examines political, social and cultural life in the post-revolution southern Irish state formed by the Anglo-Irish Treaty (1921) and Irish Civil War. Key themes include state formation and post-civil war politics; Fianna Fáil and "the republicanization" of society; church and state; Irish neutrality and Anglo-Irish relations; the political and social character of "De Valera's Ireland"; post-war economic and social change; external relations and influences; the Republic's responses to Northern Ireland and the post-1968 Troubles; globalization and the rise and fall of the Celtic Tiger economy.

NOTE: Students who have received credit for this topic under a HIST or IRST 398 number may not take this course for credit.

IRST 315 *The Troubles in Northern Ireland* (3 credits)

After surveying the historical roots of the divisions in Northern Irish society, the course traces the successive phases of the prolonged “Troubles” (1968 to 1998): the Catholic civil rights movement; the period of armed conflict between the IRA, loyalist paramilitaries, and security forces; and the recent peace process, as well as post-conflict issues including power-sharing, peace and reconciliation, and constitutional change. Attention is also given to cultural expressions of the Troubles and its legacies.

NOTE: Students who have received credit for this topic under a HIST or IRST 398 number may not take this course for credit.

IRST 316 *The Irish Revolution, 1913-1923* (3 credits)

This course explores the political, military, social, and cultural dimensions of the turbulent period in Irish history that dissolved over a century of Anglo-Irish Union and established two new states. The course necessarily focuses on *Sinn Féin* and the Irish Republican Army’s efforts to achieve independence from Britain, but considerable attention is also given to Ulster Unionist resistance to separatism. Additionally, other forces and dynamics that shaped this seminal period are explored, such as sectarian violence in Northern Ireland; conflict between rival nationalist factions in the south; labour and socialist agitations; agrarian discontents; and the women’s suffrage and feminist movements.

NOTE: Students who have received credit for this topic under a HIST or IRST 398 number may not take this course for credit.

IRST 333 *The Irish Language and its Culture II* (6 credits)

Prerequisite: IRST 233; MIRI 290; or permission of the School. Under pressure for over 200 years from the expanding use of English, Irish is still considered by many a crucial underpinning of Irish national identity. This course assumes elementary knowledge of the Irish language as a platform for students to access cultural forms (memoirs, poetry, short stories, sean-nós songs, films) and media such as radio, newspapers, television, and podcasts. In particular, the course examines how language is intimately tied to place and landscape (*dinnsheanchas*: the Irish lore of place names) and how it both actively and subliminally remains a potent force in Irish cultural life.

NOTE: Students who have received credit for this topic under an IRST 399 number may not take this course for credit.

IRST 343 *Cinema in Quebec and Ireland* (3 credits)

This course offers a comparative study of Quebec and Ireland’s cinema. As cultures, Quebec and Ireland share a history of Catholicism, a relationship with British colonialism, anxiety around language, and unresolved debates about nationalism and state formation. But these points of contact are problematic. This course teases out the complexities and importance of some of these points of contact and divergence so as to engage, in a fully realized way, in a comparative analysis.

IRST 344 *Classics of Irish Theatre* (3 credits)

This course traces a colourful history from the mid-19th century to the present, exploring, amongst other works, the melodramas of Dionysius Boucicault; the pithy plays of Oscar Wilde; the arguably propagandistic work of WB Yeats and Augusta Gregory; the existentialism of Samuel Beckett; the Hiberno-Greek tragedies of Marina Carr; and the Tarantino inspired comedies of Martin McDonagh. Illuminating the politics — national, postcolonial, gendered and global — present in Irish theatre, this course shows that when theatre holds a mirror up to the Irish nation, a wider world is reflected back.

NOTE: Students who have received credit for this topic under an IRST, PERC or THEA 398 number may not take this course for credit.

IRST 346 *Irish Performance Studies* (3 credits)

Contemporary Irish culture and identity are associated with various images and forms of behaviour. With the aim of exploring contemporary Irish identity in our globalized era, this course examines performances of Irishness — from Montreal’s St. Patrick’s Day to alternative queer beauty pageants in Dublin, from history-making Irish political speeches to modern day street protests — and addresses questions of cultural identity, cultural authenticity and cultural evolution.

NOTE: Students who have received credit for this topic under an IRST, PERC or THEA 398 number may not take this course for credit.

IRST 347 *Contemporary Irish Theatre* (3 credits)

This course offers a panorama of Ireland’s vibrant contemporary theatre landscape. It puts the exciting experimental developments of recent years under the spotlight, engaging with Irish drama that blurs the line between reality and fiction, that immerses its audiences in morally challenging worlds, and that pushes the boundaries of theatre as a medium. From the collectively devised works of Charabanc to Verbatim plays about the Northern Irish troubles, from activist theatre to street theatre, this course explores what happens when theatremakers step outside of conventional spaces and working methods to make art for our mediatized, technologized and globalized era.

NOTE: Students who have received credit for this topic under an IRST, PERC or THEA 398 number may not take this course for credit.

IRST 354 *Irish Children’s and Young Adult Literature* (3 credits)

This course examines the figure of the child and the teenager in Irish culture through an exploration of Irish children’s literature, texts written for adults such as Patrick McCabe’s *The Butcher Boy*, and Irish films that focus on childhood. By focusing on a variety of genres, Irish childhood is explored from a range of perspectives such as the importance of the mythological and fantastic tradition on conceptions of the child and childhood, the significance of place and landscape, the gendering of Irish childhood, and the rise of young adult literature, as well as questions of sexuality, ethnicity, globalization, nostalgia, and national identity.

NOTE: Students who have received credit for “Narrating Irish Childhoods” under ENGL 359 or IRST 398 may not take this course for credit.

IRST 371 *Irish Cultural Traditions in Quebec* (3 credits)

Music, song, and dance have consistently acted as conduits for the integration of the Irish immigrants into Québécois society. This interdisciplinary course explores the history of Irish traditional music in Quebec since the 18th century. Using archive recordings, ballads, and dance music, the course traces the history of Irish settlement in Quebec, and focuses specifically on the diaspora of Irish music makers to the province. In exploring this eclectic soundscape, particular emphasis is given to Irish music communities in rural and urban Quebec, from the Gaspé through Quebec City and Montreal, to the Gatineau and Ottawa Valleys.

NOTE: Students who have received credit for this topic under an ANTH, HIST, IRST or SOCI 398 number may not take this course for credit.

IRST 373 *Irish Traditional Music in Canada: A Cultural History* (3 credits)

The cultural history of Irish traditional music in Canada is inextricably linked to a matrix of Irish immigration and settlement that began in the late 1600s and that stretched from Newfoundland to the Yukon, from Hudson Bay to the Great Lakes, evidenced in music played by Irish, French, Scottish, and First Nation communities across Canada today. Exploring the music history of the Irish in the Atlantic provinces, Lower and Upper Canada, and the Western provinces, this course draws on analytical models in history, anthropology, and cultural studies, as well as ethnomusicology and music criticism.

NOTE: Students who have received credit for this topic under an ANTH, HIST, IRST or SOCI 398 number may not take this course for credit.

IRST 390 *Field Studies in Ireland* (3 credits)

Prerequisite: Enrolment in the Major in Irish Studies, a cumulative GPA of 3.30, completion of 30 credits in Irish Studies, submission of a detailed proposal, and permission of the School. This course is designed to allow students to conduct focused study of a given subject (e.g. literature, history, language, music, film) in an Irish context. The experience in Ireland may be in the context of a structured school environment or may take the form of a more independent exploration. Based upon preparatory readings and assignments done at Concordia, students enrich their learning experience in Ireland, followed by assignments completed upon their return to Concordia. All course content and requirements are established in consultation with the School.

IRST 398 *Special Topics in Irish Studies* (3 credits)**IRST 399 *Special Topics in Irish Studies*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

IRST 403 *The Irish in Quebec: Ethnic Fade and Cultural Memory* (3 credits)

Prerequisite: IRST 210 or 303; or permission of the Department. This course examines the role of cultural memory in relation to the adaptation and integration of Irish communities into host societies in Quebec and Canada. An advanced interdisciplinary course, it draws on theoretical and methodological currents in memory studies, historical anthropology and soundscape studies to explore social, cultural and political aspects of the Irish diaspora in Canada and, more specifically, in Quebec since the late-18th century.

IRST 404 *History and Memory in Ireland* (3 credits)

Prerequisite: IRST 211 and 21 credits in Irish Studies; or permission of the Department. This seminar explores the complex and politically charged relationship between history and memory in modern Ireland in the contexts of politics, popular culture, commemoration practices, and scholarship. Drawing on the insights offered by the interdisciplinary field of memory studies, it explores the interactions between past and present and memory and forgetting by tracing the ways key historical events have been historicized, revised, commemorated, and otherwise remembered (and silenced) over time by nationalists, unionists, "exiles," and other "communities of memory" in Ireland and among the Irish Diaspora. Possible memory case studies include the 1641 Rebellion; the Williamite War; the 1798 Rising; the Great Famine; the First World War and the events of the Irish Revolution; the Northern Irish "Troubles"; and Church-State institutional abuse in independent Ireland.

NOTE: Students who have received credit for this topic under an IRST 398 or 498 number may not take this course for credit.

IRST 412 *Rebellions in Ireland and the Canadas* (3 credits)

Prerequisite: IRST 210 and 211; or permission of the Department. This seminar explores the traditions of rebellion that strikingly marked the histories of Ireland and Canada. The Irish Rising of 1798 and the 1837-38 Rebellions in Upper and Lower Canada involved class struggles, religious tensions, and attempts to define the democratic futures of both nations. Through a variety of readings about the rebellions, students explore their similarities and differences, consider their respective historiographical controversies, investigate the transatlantic links that existed between Irish and Canadian insurrectionists, and reflect upon each rebellion's historical legacy.

NOTE: Students who have received credit for this topic under a HIST 398 or 412 number may not take this course for credit.

IRST 498 *Advanced Topics in Irish Studies* (3 credits)**IRST 499 *Advanced Topics in Irish Studies*** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

Acting Principal

DANIEL SALÉE, PhD *Université de Montréal; Professor*

Distinguished Professor Emerita

MARGUERITE MENDELL, PhD *McGill University*

Professors

CHELY BELKHODJA, PhD *Université de Bordeaux-Montesquieu*
ANNA KRUZYNSKI, PhD *McGill University*

Associate Professors

CATHERINE RICHARDSON, PhD *University of Victoria*
LOUELLYN WHITE, PhD *University of Arizona*

Assistant Professor

BIMADOSHKA PUCAN, PhD *Western University*

Fellows

CHANTAL MAILLÉ, PhD *Université du Québec à Montréal; Professor, Simone de Beauvoir Institute*
ALAN E. NASH, PhD *University of Cambridge; Professor, Geography, Planning and Environment*
MARK WATSON, PhD *University of Alberta; Associate Professor, Sociology and Anthropology*

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus
Annex C1, Room: 101
514-848-2424, ext. 2575

Objectives

The School of Community and Public Affairs (SCPA) offers a multidisciplinary program in public policy analysis. The School prepares its graduates to be knowledgeable participants in the policy-making process in the private, public, and community sectors. An innovative combination of academic and practical training exposes students to a wide range of public issues. In small classes encouraging participation, students develop specialized abilities to do research, to communicate, and to organize public consultations and debates. An internship program also enables students to gain the necessary experience of working in a public affairs job. The School will be of interest to excellent students in a variety of disciplines, including economics, history, political science, sociology, urban studies, journalism, and communication studies. While some of our students enter the work force upon completion of their undergraduate degree, the majority continue their education. SCPA graduates tend to do graduate work either in their disciplines or, more often, in professionally oriented programs including public or business administration, international affairs, industrial relations, and law. The historic Mackay Street building which the School occupies is an ideal site for small classes, public lectures, social events, and meetings. School facilities include a common room, a reading room and documentation centre, a seminar room, a computer room, and faculty and student offices.

Program

Students who enrol in the School of Community and Public Affairs must follow, in sequence, a three-stage program comprised of the following courses:

- 42 BA Major in Community, Public Affairs and Policy Studies
Stage I
12 SCPA 201³, 203³, 215³; INTE 296³
3 Chosen from SCPA 204³/POLI 204³ or SCPA 339³/POLI 339³
3 Chosen from SCPA 205³/HIST 205³ or SCPA 210³/HIST 210³

- Stage II*
- 12 SCPA 301⁶, 321³, 352³
- Stage III*
- 9 SCPA 411³, 412³, 450³
- 3 SCPA 480³
- 24 Minor in Immigration Studies**
- 9 SCPA 212³, 315³, 481³
- 15 Chosen from ANTH 202³; ANTH/SOCI 230³, 381³; GEOG 210³, 220³, 310³, 321³; HIST 212³/IRST 210³; HIST 283³, 302³, 308³; IRST 303³; POLI/SCPA 339³; POLI 340³, 349³; RELI 312³; THEO 233³, 343³
- 30 Certificate in Immigration Studies**
- 12 SCPA 212³, 315³, 481³, 482³
- 18 Chosen from ANTH 202³; ANTH/SOCI 230³, 381³; GEOG 210³, 220³, 310³, 321³; HIST 212³/IRST 210³; HIST 283³, 302³, 308³; IRST 303³; POLI/SCPA 339³; POLI 340³, 349³; RELI 312³; THEO 233³, 343³

The Disciplinary Program

Students enrolled in the SCPA major program are strongly encouraged to combine the School's major program with a departmental major, specialization, or honours program, and meet the Faculty of Arts and Science degree requirements.

Performance Requirements

Students are required to maintain an average of "B-" in program courses.

Entrance Requirements

Students admitted to the University and seeking to enter the School must have achieved a "B" average, or the equivalent at the previous educational level. Students wishing to enter the School will be interviewed personally and asked to complete a writing test. The interview process also serves to evaluate their language skills in both English and French. In exceptional circumstances, a candidate who has failed to meet the grade requirements might be admitted on the basis of a personal assessment of potential capacities.

For further information on curriculum, programs, personnel, and objectives, please call 514-848-2424, ext. 2579.

Courses

SCPA 201 *Introduction to Public Policy and the Public Interest* (3 credits)

This course introduces students to the theoretical, philosophical, and ethical foundations as well as the social logic of public policy formulation in modern societies. Using a multidisciplinary approach, it pays particular attention to the complex interaction between groups, individuals, and institutions in society, and brings students to consider issues related to the nature of the modern state, business-government relations, the labour movement, non-profit and community organizations, the influence of interest groups, media and international institutions on the policy agenda.

NOTE: Students who have received credit for SCPA 300 may not take this course for credit.

SCPA 203 *Community and Public Affairs in Quebec and Canada* (3 credits)

This course examines the interaction between civil society organizations and the state in the particular context of Quebec and Canada. It focuses on the labour movement, social movements and interest groups, and analyzes their role and influence in the policy-making process in Quebec and Canada, especially with regard to social policy, socio-economic development and human rights.

NOTE: This course is taught in French.

NOTE: Students who have received credit for SCPA 300 may not take this course for credit.

SCPA 204 *(also listed as POLI 204)*

Introduction to Canadian Politics (3 credits)

This course is a basic introduction to the fundamental issues of Canadian public life and the federal political system. It presents an overview of the constitution, institutions, political parties, electoral system, interest groups, and public opinion that represent the essential components of Canada's political culture and government.

NOTE: Students required to take this course under Political Science as part of a major or specialization in that discipline must replace the credits with a course chosen in consultation with the SCPA advisor.

SCPA 205 *(also listed as HIST 205)*

History of Canada, Post-Confederation (3 credits)

A survey of Canadian history from Confederation to the present, emphasizing readings and discussions on selected problems.

NOTE: Students required to take this course under History as part of a major or specialization in that discipline must replace the credits with a course chosen in consultation with the SCPA advisor.

SCPA 210 (also listed as HIST 210)**Quebec since Confederation** (3 credits)

A survey of the history of Quebec from the time of Confederation until the present. While due emphasis is placed on political developments in the province, the purpose of the course is to acquaint the student with the significant economic and social trends in modern Quebec.

NOTE: Students required to take this course under History as part of a major or specialization in that discipline must replace the credits with a course chosen in consultation with the SCPA advisor.

SCPA 212 Introduction to Global Migration: Theories and Issues (3 credits)

This course explores key concepts and paradigms of immigration, migration and diversity issues confronting nation-states around the globe and examines questions relating to illegal immigration, refugee movements, economic migrants, temporary migration and population displacement due to conflict and environmental issues and the subject of integration.

SCPA 215 Economics for Public Policy and Community Development (3 credits)

Based on an overview of current economic issues, this course introduces students to the fundamental analytical tools and concepts that are necessary to understand economic public policy and relevant to community development and empowerment.

SCPA 298 Selected Topics in Community and Public Affairs (3 credits)**SCPA 299 Selected Topics in Community and Public Affairs** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

SCPA 301 Social Debates and Issues in Public Affairs and Public Policy (6 credits)

Prerequisite: Successful completion of Stage I. This course emphasizes a deeper understanding of the process by which public policies are developed, implemented, and advocated, and of the role played by various institutions or groups in this process. Each year, a new set of key policy issues is selected for discussion and analysis. Students work in teams and are required to do case studies of institutions or groups relevant to the policy or public affairs issue they have chosen. The focus is on developing both communication skills, through oral and written presentations, and organizational skills as each team must organize one public panel discussion on one of the selected issues. The course takes place over the fall and winter terms.

NOTE: Students who have received credit for SCPA 401 may not take this course for credit.

SCPA 315 Immigration in Quebec and Canada (3 credits)

This course focuses on immigration and policies as well as the social consequences of immigration and multiculturalism in Canadian and Quebec contexts. Students learn about the evolution of policy in these areas as well as covering topics such as public opinion and reactions toward immigration, advantages and challenges of multiculturalism vs. integration, and the theoretical debates surrounding immigration and models of integration (assimilation, civic integration, multiculturalism).

SCPA 321 Public Affairs Strategies (3 credits)

Prerequisite: Successful completion of Stage I or permission of the School. This course examines and analyzes the ways in which corporate, public, and community organizations anticipate, monitor, and manage their relations with the social, political, and environmental forces which shape their operations and influence their action in their respective field. It familiarizes students with the strategies most often used in public affairs management, and develops the skills required for effective results.

SCPA 339 (also listed as POLI 339)**Quebec Politics and Society/La vie politique québécoise** (3 credits)

This course is a study of the changing party structure and political issues in Quebec and their relationship to constitutional, cultural, and economic factors.

On étudiera dans ce cours l'évolution structurelle des partis et des questions politiques au Québec en fonction de facteurs d'ordre constitutionnel, culturel et économique.

NOTE: Students required to take this course under Political Science as part of a major or specialization in that discipline must replace the credits with a course chosen in consultation with the SCPA advisor.

NOTE: The course will be offered in both English and French on a rotational basis. Please consult the Undergraduate Class Schedule for details.

NOTE: Students who have received credit for POLI 211, POLI 339 or SCPA 211 may not take this course for credit.

SCPA 352 Community and Local Activism (3 credits)

The goal of this course is to share, study, and debate dimensions of community and local activism. It critically examines traditions and histories of a variety of perspectives and presents current examples of local and community activism.

NOTE: Students who have received credit for ANTH 353 or SCPA 353 or SOCI 353, or for this topic under a SCPA 398 number, may not take this course for credit.

SCPA 398 Special Area Study in Community and Public Affairs (3 credits)

Prerequisite: Successful completion of Stage I. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

SCPA 411 *Internship*** (3 credits)**

Prerequisite: Successful completion of Stages I and II. An essential part of the School's program is a one-term apprenticeship in some aspect of community and public affairs. After completing 60 credits of the BA program, including Stages I and II, students are required to complete a practicum that will allow them to test their skills in a real situation. Placements may be drawn from all areas of possible employment, including the private sector, government and community service organizations. Students are expected to participate fully in finding and defining possible internships. Employers are asked to join in an evaluation of the work period. Students are required to submit a written report which summarizes and evaluates their work experience.

SCPA 412 *Senior Research Seminar*** (3 credits)**

Prerequisite: Successful completion of Stages I and II. In this course, students work in groups and are required to play out the position of a given corporate, public, or community organization in a simulation of real-life interaction between social and political actors over a particular policy issue. To this end, they must research and prepare all the necessary material (such as briefs, position papers, press kits) that will allow them to defend and make their policy position known. The actual simulation takes place in a one-day event at the end of the term.

SCPA 450 *Neo-Liberal Globalization and the Global Justice Movement*** (3 credits)**

This course, by examining global justice movements in the context of neo-liberal globalization, focuses on social movements, public policy and community.

NOTE: Student who have received credit for this topic under a SCPA 498 number may not take this course for credit.

SCPA 480 *Public Affairs Communication*** (3 credits)**

Prerequisite: Successful completion of Stages I and II. Public affairs communications is the backbone of public policy, politics and advocacy. It is a specialized communication skill set aimed at educating, driving or changing public opinion around a public policy, legislation, political candidates or issues. It includes skills such as understanding and executing public opinion research, political and advocacy campaigns, grassroots and ally development, opinion writing, advocacy advertising, and new media mobilization, among others.

NOTE: Students who have received credit for SCPA 460, 461, 465, or for this topic under a SCPA 498 number, may not take this course for credit.

SCPA 481 *Settlement and Integration*** (3 credits)**

This course examines the experiences of immigrants and refugees in Canada, focusing on the social, cultural and political processes of their integration and/or marginalization. In this context, it explores immigrant-based agencies and social movements, and equitable approaches to settlement services and community development to help newcomers adapt to their new environment. It also looks at integration outcomes of immigrants: employment, education, housing, participation.

SCPA 482 *Field Project in Immigration, Migration and Diversity*** (3 credits)**

Prerequisite: Enrolment in Certificate in Immigration Studies; SCPA 212, 315. This course is a field project undertaken under the auspices of a non-profit organization working in the domain of immigration. Students in small groups are asked to work on a substantive project and/or program of significance to a community organization. The analysis provided by the students is shared with the organization enabling students to be directly involved and engaged in the field of immigration as practitioners.

SCPA 498 *Special Topics in Community, Public Affairs and Policy Studies*** (3 credits)**

Prerequisite: Successful completion of Stages I and II. This course provides focused, in-depth examination and analysis of a particular policy topic, public affairs issue, or problem of community development. The subject of inquiry changes every year.

Program Objectives

FIRST PEOPLES STUDIES

The First Peoples Studies program is a major designed to introduce the student to the world of First Peoples (First Nations, Inuit, and Métis), specifically within the Quebec context. It investigates the history, the current situation, and the changing needs of First Peoples. Taught from First Peoples perspectives and based on sound, culturally sensitive research, the program's aim is to bring accurate awareness and a better understanding of First Peoples issues, develop further understanding of society's standing in relation to First Peoples, and build bridges towards mutual understanding between Quebec society and First Peoples. Students are encouraged, though not required, to take either a minor in another area of study, or a second major in order to facilitate the acquisition of complementary knowledge and practical skills relevant to contributing to the well-being and advancement of First Peoples.

Program

45 **BA Major in First Peoples Studies**

Stage I

10 FPST 201³, 202³, 203³, 297¹

6 Chosen from FPST 210³, 211³, 212³, 298³

Stage II

13 FPST 301³, 302³, 303³, 341³, 397¹

6 Chosen from FPST 306³, 310³, 311³, 312³, 320³, 321³, 322³, 323³, 398³; RELI 368³; WSDB 381³

- Stage III*
- 7 FPST 401³, 402³, 497¹
 3 Chosen from FPST 406³, 410³, 411³, 412³, 413³, 414³, 415³, 490³, 491³, 498³; COMS 419³

- 24 **Minor in First Peoples Studies**
- 12 FPST 201³, 202³, 203³, 301³
 3 Chosen from FPST 210³, 211³, 212³
 3 Chosen from FPST 310³, 311³, 312³
 3 Chosen from FPST 302³, 303³, 320³, 321³, 322³, 323³
 3 Chosen from FPST 401³, 402³, 411³, 412³, 413³, 414³, 415³, 490³, 491³
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Courses

FPST 201 **Introduction to First Peoples Studies** (3 credits)

This course introduces the guiding concepts central to First Peoples Studies at Concordia. These guiding concepts are often misunderstood by mainstream society. Themes include the Medicine Wheel as a structuring approach to course content and teaching/learning; worldviews; colonization and decolonization; First Peoples thought and knowledge; the diversity among First Peoples; and individual and community empowerment within First Peoples frames of reference. Principles and practices of dialogue and cross-cultural communication are introduced. A key process goal of the course is for students to explore, with increasing skill and knowledge, their own motivations, positioning, and goals in relation to pursuing First Peoples Studies.

FPST 202 **Research Strategies in First Peoples Studies** (3 credits)

This course introduces basic concepts, practices, and issues for study and research consistent with the goals of First Peoples Studies, including the historical relation of First Peoples to academic research; ethical considerations; the social construction of knowledge, the influence of First Peoples thought, knowledge, and ways of knowing on the development of relevant contemporary research; basic steps of designing, carrying out, and presenting research within several contemporary models, including participatory research; constructive relations of people of other cultures to researching in the area; qualitative and quantitative research methods, including asking research questions; and basic skills of interviewing, as well as treating, analyzing and presenting interview data, within qualitative research.

FPST 203 **First Peoples of Canada** (3 credits)

This course provides an introductory overview of knowledge related to the eleven cultural groups of First Peoples in Canada. It explores theories of migration, geographic location, cultural and linguistic diversity, historical socio-economic and political systems as well as the relationships with the environment and traditional practices and beliefs. In-depth focus is placed on representative nations within each group.

FPST 210 **Haudenosaunee Peoples** (3 credits)

This course traces the history of the Haudenosaunee (Iroquois) from the period of the founding of the Confederacy to the present. With particular focus on the Kanien'kehaka (Mohawk) of Quebec, it includes discussion on the culture, language, and structure of Haudenosaunee society, the formation of the Haudenosaunee Confederacy, traditional philosophies such as the Kaienerekowa (Great Law of Peace) and the Code of Handsome Lake, Kanonsesro:non (people who adhere to the ways of the Longhouse), symbolism, as well as contemporary issues, including the impact of Euro-Canadian government policies.

FPST 211 **Algonquian Peoples** (3 credits)

This course explores the specific cultures of the Algonquian peoples of Canada with an emphasis on the peoples of Quebec (the Abenaki, the Algonquin, the Attikamek, the Cree, the Innu, the Malecite, the Mik'maq, and the Naskapi) and in particular the Eeyouch (the Cree Nations). From a historical perspective and using a sociological approach, this course examines social and political structures, gender-defined roles, relationship with the environment, as well as spirituality and language. This course also examines changing roles and structures influenced by colonization, including the imposition of federal policies.

FPST 212 **Inuit Peoples** (3 credits)

This course explores the specific cultures of the Inuit peoples in Canada with a particular emphasis on the Inuit people of Nunavik (Northern Quebec). The course examines social and political structures, gender-defined roles, the Arctic way of life, the Inuit language and its dialects, as well as the spiritual beliefs of the Inuit. This course also examines changing roles and structures influenced by colonization, including the imposition of federal policies.

FPST 297 **Proseminar 1: Indigenous Ways of Knowing** (1 credit)

Prerequisite: Registration in the program and permission of the School. This course examines how traditional knowledge continues to maintain relevance in the modern world. Students learn, both personally and professionally, how to work with, incorporate, and record indigenous knowledge.

FPST 298 **Selected Topics in First Peoples Studies** (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

FPST 301 **The Indian Act** (3 credits)

Prerequisite: FPST 201, 202. This course focuses on the Indian Act, with an emphasis on its impact on the First Peoples of Quebec. This includes discussion of the events leading up to its imposition, its implications for First Peoples cultures and

societies, as well as related policies and other instruments of assimilation and colonization. Issues of accommodation and resistance are discussed. Effects of proposed changes to the Indian Act are analyzed and alternative solutions are explored.

FPST 302 *First Peoples and Education* (3 credits)

Prerequisite: FPST 201, 202. This course traces the history of the education of the First Peoples. It explores current issues in education, including educational approaches defined and implemented by First Peoples. Topics covered include traditional ways of learning and teaching. The issue of colonization, including early attempts at religious and linguistic conversion, as well as Canada's residential school system and its continuing legacy, are discussed in depth.

FPST 303 *First Peoples and Health* (3 credits)

Prerequisite: FPST 201, 202. This course addresses First Peoples wellness philosophies and healing approaches in dealing with contemporary health problems. It draws significantly on historical perspectives of First Peoples mental, physical, spiritual, and emotional health issues, including pre-contact health and environments, the introduction of alcohol and viral disease, as well as the emergence of lifestyle-related diseases. Some of the current health issues to be explored include structural inequalities, institutional mistreatment, addictions, diabetes, HIV/AIDS, and mental health.

FPST 306 *Contemporary First Peoples Art* (3 credits)

Prerequisite: FPST 201, 202. This course provides an in-depth examination of various artist traditions among First Peoples. Beginning in the post-World War II era, topics covered include historical and contemporary trends and influences in artistic production, biopics of prominent artists, and issues surrounding museum collection and arts patronage by settlers/non-autochtonous. The lived experiences and realities of First Peoples will inform all topics examined in the course.

FPST 310 *Linguistic Introduction to Algonquian Languages* (3 credits)

This course presents a general overview of the eight Algonquian languages spoken in Quebec, with special emphasis on the Cree language. The course introduces the student to basic vocabulary, different dialects and writing systems. It explores the basic components that make up Algonquian languages, including sounds, word composition, sentence structure and meaning. Other topics include linguistic interference from dominant languages, semantic shift and the use of language as a social tool. This course assists the student to recognize and value the social and cultural context of language.

FPST 311 *Linguistic Introduction to Haudenosaunee Languages* (3 credits)

This course presents a general overview of the six Haudenosaunee (Iroquoian) languages, with special emphasis on Kanien'kehaka (the Mohawk language). The course introduces the student to basic vocabulary, different dialects and writing systems. It explores the basic components that make up Haudenosaunee languages including sounds, word composition, sentence structure and meaning. Other topics include linguistic interference from dominant languages. This course assists the student to recognize and value the social and cultural context of language.

FPST 312 *Linguistic Introduction to Inuktitut Language* (3 credits)

This course presents a general overview of the Inuktitut language, with special emphasis on the dialect spoken in Nunavik (Northern Quebec). The course introduces the student to basic vocabulary, different dialects, and the syllabic writing system used by Inuit people. It explores the basic components that make up Inuktitut, including sounds, word composition, sentence structure and meaning. Other topics include linguistic interference from dominant languages. This course assists the student to recognize and value the social and cultural context of language.

FPST 320 *First Peoples and the Media* (3 credits)

This course explores how First Peoples have been portrayed in selected media such as television, film, and advertising by looking at different representations in various industries such as advertising, sports, and tourism. This includes discussion on the relationship between media and First Peoples including the media's impact on relations between the mainstream society and First Peoples. The social role of different forms of media as used by First Peoples in the process of empowerment is also discussed.

FPST 321 *First Peoples and Justice* (3 credits)

Prerequisite: FPST 301. This course focuses on the relationship between First Peoples and the Canadian justice system. It looks specifically at how the Canadian legal, judicial, and penal system has dealt with First Peoples through time. The course also explores pre-contact forms of justice, tensions between European and indigenous conceptions of justice, First Peoples response to Canadian justice, and the emergence of alternative, indigenous mechanisms of judicial administration within communities in Quebec and Canada.

FPST 322 *First Peoples and the Fur Trade* (3 credits)

This course provides an in-depth historical and sociological analysis of the impact of the fur trade on the First Peoples of Canada. Topics include the emergence of the fur trade, and fur-trading companies' dependence on First Peoples. Special emphasis is placed on changing demographics as a result of the fur trade, the increasing reliance on European goods, First Peoples entrepreneurial spirit, the birth of the Métis Nation, as well as the evolving political and economic role of women within fur-trading society.

FPST 323 *First Peoples Sacred Stories* (3 credits)

Prerequisite: FPST 201 or 203. Through storytelling, reading, discussion, and writing, this course explores themes of fundamental human concern for First Peoples. It considers oral traditions as integral to broader, culturally defined systems of knowledge and explores the role of sacred stories in traditional and contemporary societies. This includes discussion on the role of stories as vehicles for encoding and transmitting knowledge about the people, the environment, the culture and history. Stories analyzed include creation stories, trickster tales, oral historical accounts, and stories relating to natural phenomena.

FPST 341 *Globalization and Indigenous Peoples* (3 credits)

This course explores the situation of First Peoples across the world from a comparative indigenous perspective. The primary aim of the course is to familiarize students with the similarities and differences between indigenous cultures and nations within the context of global colonialism past and present.

NOTE: Students who have received credit for ANTH/SOCI 303 may not take this course for credit.

FPST 397 *Proseminar 2: Ethics and First Peoples* (1 credit)

Prerequisite: Registration in the program and permission of the School. This course examines ethical issues pertaining to First Peoples from traditional and non-traditional perspectives. In addition to addressing community/research conflict and co-operation, concerns of insider/outsider research and cultural considerations in conducting research are also studied.

FPST 398 *Special Topics in First Peoples Studies* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

FPST 401 *Contemporary Politics in First Peoples Communities* (3 credits)

Prerequisite: FPST 301. This course focuses on First Peoples politics in the Quebec and Canadian contexts. It explores more specifically the emergence and actions of First Peoples political organizations over the past 40 years, First Peoples relationships with successive federal and provincial governments, movements of national self-affirmation, and the nature of the political interface between competing groups inside First Peoples communities.

FPST 402 *First Peoples Contemporary Social Issues* (3 credits)

Prerequisite: FPST 302, 303. This course addresses contemporary social issues and challenges faced by First Peoples. It analyzes the underlying causes of issues such as poverty, lack of formal education, isolation, alcohol and substance abuse, family violence and sexual abuse. The course also examines current healing approaches and programs used to deal with these issues, and fosters discussion on possible alternatives.

FPST 406 *Decolonizing First Peoples Art* (3 credits)

Prerequisite: FPST 306. This course examines First Peoples artistic contributions within the context of decolonizing indigenous art globally. Topics explored highlight the relationship between culture, society, politics and visual art that illustrate art as part of the anticolonial resistance by First Peoples as well as the role of museums and exhibitions in fictioning national identities.

FPST 410 *First Peoples Community Development* (3 credits)

Prerequisite: FPST 401 previously or concurrently. This course examines the concepts and experiences of community development among First Peoples, with an emphasis on Quebec. Selected community development models, their goals, processes, and means of evaluation, are analyzed. The course introduces students to analytical and practical skills in context-sensitive community development guided by First Peoples thought and knowledge. Students explore dynamics of nourishing community participation and leadership, as well as analyze community structures and inter-group relations within communities. Reference is made to on-reserve, urban, rural, and northern contexts. Ethical considerations are discussed. This course includes analysis of case studies.

FPST 411 *First Peoples Treaties and Agreements* (3 credits)

Prerequisite: FPST 401 previously or concurrently. This course explores the contemporary issues associated with treaties and indigenous land claims agreements. Emphasis is placed on selected historically significant treaties between the First Peoples, and those between the First Peoples and the Europeans. The original intent and framework of treaties and agreements, the negotiation processes involved, and the implementation of treaties and modern agreements are also discussed.

FPST 412 *First Peoples and Governance* (3 credits)

Prerequisite: FPST 401 previously or concurrently. This course examines the political and administrative mechanisms which First Peoples use to arbitrate competing interests, manage conflict, and formulate policies in their communities across Quebec and Canada. The course analyzes political and administrative institutions inherited from the Indian Act, as well as governance strategies developed in conformity with First Peoples traditions and in resistance to the Canadian state's institutional dominion. The course also explores the tensions created by the coexistence of European and indigenous modes of governance within and outside First Peoples communities.

FPST 413 *First Peoples International Relations and Diplomacy* (3 credits)

Prerequisite: FPST 321. This course focuses on the actions and interventions of various First Peoples on the international scene, both in the past and in the present. The course's primary aim is to explore the reasons why First Peoples have resorted to international forums and institutions, how they conduct their international action and whether in the end international diplomacy works to their advantage.

FPST 414 *First Peoples Rights Movements* (3 credits)

Prerequisite: FPST 401 and 402, previously or concurrently. This course focuses on the many historical and contemporary forms of First Peoples resistance to colonization, including violent and non-violent resistance, revitalization movements and self-determination. It explores liberation theory and its roots in colonial oppression and analyzes historical and contemporary resistance movements such as the confrontation at Kanehsatake (Oka) and Esgenoopetitj (Burnt Church) and the movement for decolonization through self-determination.

FPST 415 *Indigenous Identity and Nationalism* (3 credits)

Prerequisite: FPST 401 previously or concurrently. This course explores the political and ideological ramifications of the expression of indigenous identity. It focuses on the emergence of First Peoples nationalist movements, compares them with non-Aboriginal nationalisms, and examines the nature and conceptual foundations of the indigenous sense of nation. Attention is devoted to the political efficiency of indigenous nationalism in its interface with the Canadian and Quebec states. Case studies particularly emphasize Kanien'kehaka and Eeyou nationalisms.

FPST 490 *Aboriginal Community Economic Development I* (3 credits)

Prerequisite: Enrolment in the major; 60 credits and permission of the School. This course assists participants in exploring specific issues related to Aboriginal economic development in particular settings (in reserve, urban, rural, and northern communities), as well as addressing challenges common to Aboriginal CED. It assists participants in exploring historical and contemporary relationships between Aboriginal communities and the predominant cultural and economic forces, and comparing traditional Aboriginal organizational and economic practices with the new approaches being proposed by CED.

FPST 491 *Aboriginal Community Economic Development II* (3 credits)

Prerequisite: FPST 490. This course uses a case study approach to evaluate one or more economic development strategies applied within an Aboriginal community. An historical overview of this experience outlines the cultural and political context which has shaped these strategies as well as their results. CED approaches are examined in the context of this individual experience. This course may include on-site visits and guest lecturers.

FPST 497 *Proseminar 3: Oral Traditions as Methodology* (1 credit)

Prerequisite: Registration in the program and permission of the School. This course explores the validity and importance of oral traditions as a way to comprehend First Peoples knowledge and its continued relevance in the modern world.

FPST 498 *Advanced Topics in First Peoples Studies* (3 credits)

Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

Principal

WAYNE BRAKE, PhD McGill University; Professor, Psychology

Fellows

SIMON L. BACON, PhD University of Birmingham; Professor, Health, Kinesiology, and Applied Physiology

ERIN BARKER, PhD University of Alberta; Associate Professor, Psychology

PABLO BIANUCCI, PhD University of Texas at Austin; Assistant Professor, Physics

PASCALE BIRON, PhD Université de Montréal; Professor, Geography, Planning and Environment

GRANT BROWN, PhD Memorial University of Newfoundland; Professor, Biology

PETER J. DARLINGTON, PhD University of Western Ontario; Associate Professor, Health, Kinesiology, and Applied Physiology

RICHARD DEMONT, PhD University of Pittsburgh; Associate Professor, Health, Kinesiology, and Applied Physiology

EMMA DESPLAND, PhD University of Oxford; Associate Professor, Biology

CLAUDETTE GAUTHIER, PhD Université de Montréal; Assistant Professor, Physics

JAMES GRANT, PhD University of Guelph; Professor, Biology

BRANDON HELFIELD, PhD University of Toronto; Assistant Professor, Physics

ASHLEE J. HOWARTH, PhD University of British Columbia; Assistant Professor, Chemistry and Biochemistry

PAUL JOYCE, PhD Dalhousie University; Professor, Chemistry and Biochemistry

LISA KAKINAMI, PhD University of Rochester; Assistant Professor, Mathematics and Statistics

LASZLO KALMAN, PhD University of Szeged; Associate Professor, Physics; Chemistry and Biochemistry

ROBERT KILGOUR, PhD Florida State University; Professor, Health, Kinesiology, and Applied Physiology

DMITRY KOROTKIN, PhD Steklov Mathematical Institute; Professor, Mathematics and Statistics

ALEXANDRE MORIN, PhD Université de Montréal; Professor, Psychology

DAVID MUMBY, PhD University of British Columbia; Professor, Psychology

VÉRONIQUE PÉPIN, PhD Arizona State University; Associate Professor, Health, Kinesiology, and Applied Physiology

NATALIE PHILLIPS, PhD Dalhousie University; Professor, Psychology

ALISA PIEKNY, PhD University of Calgary; Associate Professor, Biology

DIANE POULIN-DUBOIS, PhD Université de Montréal; Professor, Psychology

VLADIMIR TITORENKO, PhD Institute for Genetics and Selection of Industrial Microorganisms, Moscow; Professor, Biology

DAJANA VUCKOVIC, PhD University of Waterloo; Assistant Professor, Chemistry and Biochemistry

CHRISTOPHER WILDS, PhD McGill University; Associate Professor, Chemistry and Biochemistry

CARLY D. ZITER, PhD University of Wisconsin-Madison; Assistant Professor, Biology

Affiliate Fellow

LUCIEN-ALAIN GIRALDEAU, PhD McGill University; Biology, Université du Québec à Montréal

For the complete list of faculty members, please consult the Department website.

Location

Loyola Campus

Richard J. Renaud Science Complex, Room: SP 363.00 – 363.09

514-848-2424, ext. 2595

Objectives

The aim of the Science College is to prepare students enrolled in one of Concordia's science programs for a life of research, teaching, or some similarly demanding intellectual pursuit in a profession. The academic program of the College complements the regular undergraduate curriculum and includes cross-disciplinary courses and student participation in laboratory research activities from the first year on. The collegial atmosphere fosters interaction among students and between students and faculty.

In Science College, students will gain an understanding of several areas of science, while specializing in whichever one they choose. Curricular structures frequently restrict students to a single discipline. To help counteract excessive specialization, the Science College has designed a series of courses to show what practising physicists think about physics; what mathematicians do when they are thinking mathematics: — not "an introduction to," but "the state of the art."

The College provides an opportunity for students to become acquainted with science as practised and understood by scientists today. Its curriculum is planned to fulfill the primary goals of the College — to provide an opportunity for experience in a research environment, for thinking about the nature of science, and for becoming aware of the style and content of the various scientific disciplines.

In Science College, students have the opportunity to work individually with active research scientists. This is done through a program of directed or independent study in each undergraduate year which enables them to undertake or participate in projects of discovery in a variety of different areas of scientific endeavour.

Students of the College will also be provided with an opportunity to consider the nature of science. The College offers courses in the intellectual and social context of science. Designed specifically for College students, these courses raise questions of broad interest to scientists and presume an understanding of the subject matter of science itself.

Students will also be given the opportunity to consider the social and cultural framework of their science studies through a basic course in some aspect of humanistic studies.

Finally, students will be encouraged to appreciate the link between clarity of thought and clarity of expression, through the availability of tutorial assistance in the development of writing skills.

Facilities

The College has study and lounge areas, computer facilities, a small library, and a few periodicals of general interest. The College offers students the opportunity and facilities to discuss matters of interest among themselves and with their professors. Science College also offers a number of courses and invites scientists to visit the University to meet College students.

Requirements for Admission to Science College

The program of Science College is academically demanding, involving concentration in one discipline and a critical investigation of other aspects of science. The College is committed to serious academic work and high standards, and seeks to attract talented and enthusiastic students who are willing to work hard in a search for a deeper understanding of their subject.

Students must enrol in a science program that leads to a BSc or BA (cognitive science) degree in order to be part of Science College. Students registered for a BA in Journalism are also eligible, as are students registered in the General Science Option of Computer Science.

In addition to the normal requirements for admission to the University's various programs, applicants are expected to have a good academic average. They will be considered on the basis of their academic record, and a personal interview. Preference will be given to students who show a disposition and an aptitude to profit from the unique features of the sort of fundamental scientific education which the College offers. Applicants are encouraged to provide evidence of the range of their intellectual interests and of any creative activity in which they may have been involved.

Students must be prepared to attend courses at times outside the normal University schedule. The College is open to full-time students only.

Science College and Journalism

A limited number of students who have been admitted to the Major in Journalism program may be allowed to register in the Science College, with a view to combining a basic understanding of science with a training in journalism.

Performance Requirement

Students in the College must obtain a minimum grade of "B-" in all courses required for the Minor in Multidisciplinary Studies in Science, as well as in all courses counted toward their discipline-based honours, specialization, or major program. Students who receive a grade lower than "B-" are permitted to repeat the course. Students who receive a second grade lower than a "B-" are normally withdrawn from the minor.

Further Information

Further information on the courses and activities of the Science College may be obtained either by writing or by telephoning the College office. Personal interviews with a fellow of the Science College may be arranged through the Science College office.

Science College Curriculum

The College offers a Minor in Multidisciplinary Studies in Science, consisting of a core of courses which is required of all students. This core consists of 30 of the 90 credits normally required for a BSc degree. These courses have been developed specifically for the College with the intention of providing a unique, integrated program of education in science.

Program

In addition to completing the core curriculum, students are responsible for satisfying their particular degree requirements by completing a departmental honours, specialization, or major program leading to a BSc or BA (cognitive science). The superscript indicates credit value.

24-30 Minor in Multidisciplinary Studies in Science

6 SCOL 270⁶

9 SCOL 290³, 391⁶

6 SCOL 490^{6*}

9 Chosen from SCOL 350^{3***}; SCOL 360^{3***}; LBCL 291^{6**}, 292^{6**}

**After consultation with the College, this course may be replaced by BIOL 490, CHEM 450, EXCI 426, PHYS 496, or PSYC 495.*

***Only one of these courses may be taken.*

****This course may be repeated twice for credit in this program, provided the subject matter is different each time. In special circumstances and with permission of the College, a repeat of this course may be replaced by a science course at the 300 level or higher outside the student's program.*

NOTE: Students who have taken BIOL 490, CHEM 450, EXCI 426, PHYS 496, or PSYC 495 are not required to take SCOL 490.

Courses

SCOL 270 *Historical, Philosophical, and Social Aspects of Science* (6 credits)

Prerequisite: Membership in the Science College, or permission of the College. This course discusses the intellectual framework of science and the relationships between science and society, and the political and philosophical questions inherent in the scientific process. Students are expected to understand the scientific issues at the level at which they were originally addressed.

SCOL 290 *Directed and Independent Study I* (3 credits)

Prerequisite: Membership in the Science College, or permission of the College. The student works under the supervision of a member of the Faculty on either a practical laboratory project or a literature study. A formal, written report is required.

SCOL 350 *Current Issues in Physical, Biological and Mathematical Sciences* (3 credits)

Prerequisite: Membership in the Science College, or permission of the College. This course is designed to help students understand the "state of the art" in fields of science in which they are not specializing. It discusses problems under current study, and attempts to identify possible future directions of research. The approach is qualitative. Detailed technical knowledge is not prerequisite.

Specific topics for this course are stated in the Undergraduate Class Schedule.

NOTE: This course may be repeated twice for credit in this program, provided the subject matter is different each time. In special circumstances and with permission of the College, a repeat of this course may be replaced by a science course at the 300 level or higher outside the student's program.

NOTE: Students who have received credit for SCOL 351, 352, or 353 may not take this course for credit if the subject matter is the same.

SCOL 360 *Topics for Multidisciplinary Study* (3 credits)

Prerequisite: Membership in the Science College, or permission of the College. The purpose of this course is to introduce students to problems and areas of study which transcend traditional disciplinary barriers. A chosen area of investigation is treated from the viewpoint of various disciplines. Lectures from different areas may be used for this purpose. The aim is to show the contributions made by each field to the understanding of the problem, and how they complement each other.

Specific topics for this course are stated in the Undergraduate Class Schedule.

NOTE: This course may be repeated twice for credit in this program, provided the subject matter is different each time. In special circumstances and with permission of the College, a repeat of this course may be replaced by a science course at the 300 level or higher outside the student's program.

NOTE: Students who have received credit for this topic under a SCOL 398 number may not take this course for credit.

SCOL 370 *Selected Readings in Multidisciplinary Study* (3 credits)

Prerequisite: Membership in the Science College and/or permission of the College. The purpose of this course is to introduce students to problems and areas of study which transcend traditional disciplinary barriers. A chosen area of investigation is treated from the viewpoint of various disciplines. Readings from different areas may be used for this purpose under guidance of one or more fellows of the College. The aim is to show the contributions made by each field to the understanding of the problem, and how they complement each other.

NOTE: Students who have received credit for this topic under a SCOL 398 number may not take this course for credit.

SCOL 391 *Directed and Independent Study II* (6 credits)

Prerequisite: Membership in the Science College, or permission of the College. A student who has completed SCOL 290 registers for SCOL 391. Students are encouraged to work in a field different from that of their SCOL 290 project.

NOTE: Students who have received credit for SCOL 390 may not take this course for credit.

SCOL 398 *Selected Topics in Multidisciplinary Studies* (3 credits)

Prerequisite: Membership in the Science College and/or permission of the College. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

SCOL 490 *Directed and Independent Study III* (6 credits)

Prerequisite: Membership in the Science College, or permission of the College. A student who has completed SCOL 391 registers for SCOL 490. Students are encouraged to work in a field different from that of their SCOL 290 and 391 projects. Students complete a research project approved in advance by the College, under the supervision of a fellow of the College and/or a faculty member in a scientific discipline at Concordia or elsewhere.

NOTE: After consultation with the Science College, students may register in BIOL 490, CHEM 450, EXCI 426, PHYS 496, or PSYC 495 and upon successful completion be exempted from SCOL 490. Students may also choose to do the honours project and in addition a SCOL 490 project.

SIMONE DE BEAUVIOR INSTITUTE AND WOMEN'S STUDIES

Section 31.560

Principal

KIMBERLY MANNING, PhD *University of Washington*; Associate Professor

Distinguished Professor Emerita

GENÈVIÈVE RAIL, PhD *University of Illinois at Urbana-Champaign*

Professors

CHANTAL MAILLÉ, PhD *Université du Québec à Montréal*

VIVIANE NAMASTE, PhD *Université du Québec à Montréal*; Provost's Distinction

Associate Professor

GADA MAHROUSE, PhD *University of Toronto*

Assistant Professors

NATHALIE BATRAVILLE, PhD *Yale University*

NATALIE KOURI-TOWE, PhD *University of Toronto*

GENEVIEVE PAINTER, PhD *University of California, Berkeley*, BCL LLB *McGill University*

Fellows

ADEELA ARSHAD-AYAZ, PhD *McGill University*; Assistant Professor, Education

RACHEL BERGER, PhD *University of Cambridge*; Associate Professor, History

DANIELLE BOBKER, PhD *Rutgers University*; Associate Professor, English

SANDRA CURTIS, PhD *Concordia University*; Professor, Creative Arts Therapies

CARLY DANIEL-HUGHES, ThD *Harvard University*; Associate Professor, Religions and Cultures

BEENASH JAFRI, PhD *York University*; Assistant Professor, Cinema

CLAUDINE MANGEN, PhD *University of Rochester*; Associate Professor, Accountancy

EMER O'TOOLE, PhD *University of London*; Assistant Professor, School of Irish Studies

Permanent Fellows

ARPI HAMALIAN, MA *American University of Beirut*; Associate Professor, Education

ELIZABETH HENRIK, PhD *Tulane University*; Professor, Psychology

SUSAN HOECKER-DRYSDALE, PhD *Louisiana State University*; Professor, Sociology and Anthropology

MAIR E. VERTHUY, MA *University of Toronto*; Professor, Études françaises

KATHERINE WATERS, MA *University of Oxford*; Professor, English

Research Associates

FARIDA ABLA, MFA *University of Arkansas*

SHAHEEN AKHTER MUNIR, LLB *University of Dhaka, Bangladesh*

LEILA ANGOD, PhD *Ontario Institute for Studies in Education*

SIMA APRAHAMIAN, PhD *McGill University*

SYEDA BUKHARI, PhD *Simon Fraser University*

FANG CHEN, PhD *Concordia University*

DOLORES CHEW, PhD *University of Calcutta*

KARIN DOERR, PhD *McGill University*

DOROTHY GELLER, PhD *George Washington University*

AMANDA GHAREMANI, LLB BCL *McGill University*

MICHELLE HARTMAN, PhD *University of Oxford*

DANA HEARNE, PhD *University of Toronto*

NDEYE LAITY-NDIAYE, DEA *Université de Paris*

PAULINE MCKENZIE AUCOIN, PhD *University of Toronto*

LUISA MOLINO, MSc *McGill University*

KATHLEEN O'GRADY, PhD *University of Cambridge*

ZARA SAEIDZADEH, PhD *Örebro University*

SANDRA SMELE, PhD *York University*

ESMERALDA THORNHILL, LLD *City University of New York*

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus
Annex MU, Room: 202
514-848-2424, ext. 2370

Objectives

The Institute strives to stimulate the investigation and understanding of the role of women in society and to encourage women to develop their creative potential. In research and teaching, special attention is given to gender, race, class, and sexual orientation. The Institute has several objectives: to investigate the history, current situation, and changing needs of women; to generate support for research topics relevant to women; to encourage full recognition of women's contribution to human achievement; to ensure that women and gender issues are studied in a non-discriminatory manner; to strengthen women's rights and the conditions for exercising them; to ensure the equality of all individuals without distinction of race, sex, age, language, or religion. Women's Studies encompass and modify all areas of knowledge. Through the introduction of new perspectives and new research, this field of study helps to correct and complete the traditional scholarly record. It is in essence interdisciplinary and multidisciplinary since the specificity of the condition of women embraces all existing disciplines. It thus questions the concept and structures of knowledge contained within the disciplinary boundaries and contributes to bringing about a reunification of the knowledge and scholarship that has become increasingly fragmented.

SIMONE DE BEAUVOIR INSTITUTE

Founded in 1978 to promote the understanding of the historical and contemporary situation of women in society, the Simone de Beauvoir Institute of Concordia University helps women to discover and develop their potential, both by its academic base in Women's Studies and by its co-curricular activities. We are honoured that Simone de Beauvoir authorized us to use her name, and expressed great interest in being informed of our activities.

All students registered in the Specialization, Major, Minor, or Certificate in Women's Studies or the Major or Minor in Interdisciplinary Studies in Sexuality are members of the Institute. Other undergraduate students are welcome to become members if they undertake to complete nine credits of WSDB or SSDB courses.

The co-curricular life of the Institute is extremely important, and all members are expected to contribute to our activities. Exciting opportunities are available to organize workshops, colloquia, and debates on subjects that interest the members, as well as to collaborate with women's organizations outside the University on research projects and other joint ventures.

Admission Requirements for the Simone de Beauvoir Institute

Students may apply simultaneously to Concordia University and the Simone de Beauvoir Institute by filling out and submitting the Concordia University Application for Admission with the box for "Colleges" checked and "Simone de Beauvoir Institute" written in the space provided. Further information about the Institute can be obtained by calling or visiting its offices or website at concordia.ca/artsci/sdbi.

Programs

*Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.*

Students should consult with the Women's Studies advisor prior to registering for Women's Studies courses.

60 BA Specialization in Women's Studies

- 24 WSDB 290³, 291³, 292³, 380³, 480³, 490³, 496⁶
18 Chosen from WSDB 383³, 384³, 390³, 391³, 392³, 393³, 491³, 492³
18 Chosen from the list of Optional Courses

NOTE: To be admitted to the specialization, students must have completed a minimum of 24 WSDB credits in the Women's Studies Major and obtain approval of a full-time WSDB instructor following the submission of a detailed description of a proposed research project for the WSDB 496⁶ course. In addition, students must have a minimum GPA of 3.0 to be accepted and must maintain an assessment GPA of 3.0 while in the specialization.

42 BA Major in Women's Studies

- 18 WSDB 290³, 291³, 292³, 380³, 480³
15 Chosen from WSDB 383³, 384³, 390³, 391³, 392³, 393³, 491³, 492³
9 Chosen from the list of Optional Courses

30 Minor in Women's Studies

- 15 WSDB 290³, 291³, 292³, 380³, 480³
9 Chosen from WSDB 383³, 384³, 390³, 391³, 392³, 393³, 490³, 491³, 492³
6 Chosen from the list of Optional Courses

30 Certificate in Women's Studies

- 9 WSDB 290³, 291³, 292³
- 15 Chosen from WSDB 383³, 384³, 390³, 391³, 392³, 393³, 491³, 492³
- 6 Chosen from the list of Optional Courses

Students may transfer into the certificate program credits earned in an incomplete degree or certificate program or as an Independent student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the program.

Optional Courses

WSDB 298³, 310³, 365³, 370³, 380³, 381³, 383³, 384³, 385³, 386³, 390³, 391³, 392³, 393³, 398³, 410³, 480³, 490³, 491³, 492³, 498³, 499⁶; ANTH 276³; ARTH 381³; CLAS 353³; COMS 368³, 472³; EDUC 321³; ENGL 303⁶, 351³, 352³, 382³, 393³; FFAR 290⁶; FMST 329³, 392³, 393³; HIST 305³, 347³; INTE 275³; PHIL 371³, 471³; POLI 309³; RELI 381³, 382³, 383³, 384³, 385³, 386³, 387³, 392³; SOCI 276³, 290⁶, 380³, 475³, 476³; SCPA 352³; SSDB 270⁶; THEO 295³

NOTE: Students should consult the appropriate departments concerning possible prerequisites for the courses listed under Optional Courses.

42 BA Major in Interdisciplinary Studies in Sexuality

- 18 Credits from the Interdisciplinary Studies in Sexuality Core
- 6 Credits chosen from the following streams:
 - Interdisciplinary Studies in Sexuality Stream I: Practicum
 - Interdisciplinary Studies in Sexuality Stream II: Advanced Coursework
- 6 Credits chosen from AHSC 312³; ANTH 375/SOCI 375³; FASS 293³; WSDB 383³, 384³, 385³, 386³
- 3 Credits chosen from SSDB 425³, 428³, 492³, 493³
- 9 Credits chosen from AHSC 312³; ANTH 375/SOCI 375³; BIOL 200³; ENGL 393³; FASS 293³; FMST 391³, 392³, 393³; HIST 346³; RELI 380³; SSDB 425³, 428³, 492³, 493³; WSDB 383³, 384³, 385³, 386³ or other appropriate courses approved by the Institute
- 18 *Interdisciplinary Studies in Sexuality Core*
- 12 SSDB 220³, SSDB 270/FFAR 290/SOCI 290⁶, SSDB 275³
- 6 FASS 392³; SSDB 390³
- 6 *Interdisciplinary Studies in Sexuality Stream I: Practicum*
- 6 SSDB 425³, 426³
- 6 *Interdisciplinary Studies in Sexuality Stream II: Advanced Coursework*
- 6 Credits chosen from SSDB 428³, 492³, 493³
- 27 **Minor in Interdisciplinary Studies in Sexuality**
- 9 SSDB 220³, SSDB 270/FFAR 290/SOCI 290⁶
- 3 Credits chosen from FASS 392³; SSDB 390³
- 15 Credits chosen from AHSC 312³; ANTH 375/SOCI 375³; BIOL 200³; ENGL 393³; FASS 293³, 392³; FMST 391³, 392³, 393³; HIST 346³; RELI 380³; SSDB 275³, 390³, 425³, 492³, 493³; WSDB 383³, 384³, 385³, 386³ or other appropriate courses approved by the Institute

The Major and Minor in Interdisciplinary Studies in Sexuality, offered jointly by the Faculty of Arts and Science and the Faculty of Fine Arts, draw their curriculum from a variety of disciplines. Their purpose is to investigate empirical, theoretical, and creative aspects of sexuality.

Language/Langue

Les règlements actuels permettent à toute étudiante et tout étudiant d'écrire ses devoirs ou examens en anglais ou en français dans tous les cours offerts, à l'exception des cours de langue. La langue d'enseignement sera normalement l'anglais.

Non-francophone students may equally submit assignments in English in Français 451, 476, and 477, as long as they are taking the course for credit in Women's Studies or as an elective, and not as part of a program of the Département d'études françaises.

Courses**Interdisciplinary Studies in Sexuality****SSDB 220 *Introduction to Theories of Sexuality* (3 credits)**

This course is a multidisciplinary introduction to the central problems in the study of sexuality. The development over the last century of such key concepts as gender, identity, sex role, sexual orientation, sexual liberation, heterosexuality, and feminist, queer, and intersectional theory are examined. The course surveys theories of sexuality as they are conceived in scientific and cultural discourses with attention to areas of overlap and difference.

SSDB 270 (also listed as FFAR 290/SOCI 290)**HIV/AIDS: Cultural, Social and Scientific Aspects of the Pandemic** (6 credits)

This course surveys the major issues and challenges of the HIV pandemic. Such topics as the biology of the virus, therapeutic, clinical and epidemiological research developments, the social costs of sexual taboos and discrimination, and media and artistic representation by and of people with HIV are presented by faculty and visiting community experts. The epidemics in the Western hemisphere, Africa, Asia, and other regions are addressed. Learning is based on lectures, weekly tutorials, and community involvement.

NOTE: Students who have received credit for FFAR 290, 390, INTE 270, 390, SOCI 290, or for this topic under a FFAR 398, INTE 398, or SOCI 399 number, may not take this course for credit.

SSDB 275 Introduction to Sexuality Research (3 credits)

This course surveys interdisciplinary approaches to research in sexuality within the humanities, arts and social sciences. The course considers different research methodologies in sexuality research, with opportunities to apply multiple methods.

NOTE: Students who have received credit for FASS 291 or INTE 275 may not take this course for credit.

SSDB 390 Sexuality Theory in Historical Perspectives (3 credits)

Prerequisite: 30 university credits; SSDB 220 or SSDB 275; or permission of the Institute. This course introduces students to theoretical thinking on sexuality in historical perspectives, prior to the 1980s. This course may focus on ideas about sexuality within a specific period or area in history to investigate how sexuality was conceptualized, understood, and treated. The course takes both disciplinary and interdisciplinary approaches to consider how theoretical frameworks on sexuality are embedded in social and colonial relations. The course prepares students to understand how modern ideas of sexuality have been shaped by knowledge that is historically constituted.

SSDB 425 Ethics in Community Engagement (3 credits)

Prerequisite: 30 university credits, enrolment in the Major in Interdisciplinary Studies in Sexuality. This course examines the ethics, practices, and processes of working within and alongside of communities. Examining both theoretical and practical texts, case studies, and site-visits in the area of feminism and sexuality, the course prepares students to enter into the Practicum experience.

NOTE: Students who have received credit for this topic under SSDB 493 may not take this course for credit.

SSDB 426 Practicum (3 credits)

Prerequisite: SSDB 425; 60 university credits; enrolment in the Major in Interdisciplinary Studies in Sexuality; and permission of the Institute. This course offers a 100-hour field experience over the course of one semester. The course involves a fieldwork project.

SSDB 428 Independent Study (3 credits)

Prerequisite: 60 university credits; enrolment in the Major or Minor in Interdisciplinary Studies in Sexuality; and permission of the Institute. This course provides the opportunity for an independent study in which the student may explore, from a feminist and intersectional perspective, a specific topic within the interdisciplinary field of sexuality.

SSDB 492 Seminar in Advanced Topics in Sexuality I (3 credits)

Prerequisite: 60 university credits; enrolment in the Major or Minor in Interdisciplinary Studies in Sexuality, or permission of the Institute. This seminar is designed to provide a setting for concentrated learning and an opportunity for advanced feminist and intersectional study on a research topic in sexuality.

SSDB 493 Seminar in Advanced Topics in Sexuality II (3 credits)

Prerequisite: 60 university credits; enrolment in the Major or Minor in Interdisciplinary Studies in Sexuality, or permission of the Institute. This seminar is designed to provide a setting for concentrated learning and an opportunity for advanced feminist and intersectional study on a research topic in sexuality.

Women's Studies

N.B.:

- (1) 300-level courses are generally open only to students who have successfully completed at least 15 credits, which include WSDB 290, 291 and 292. Students who do not have these prerequisites may also register with permission of the Institute.
- (2) 400-level courses are generally open only to students who have successfully completed at least 30 credits, which include WSDB 290, 291, 292 and 380. Students who do not have these prerequisites may also register with permission of the Institute.

WSDB 290 Introduction to Historical Perspectives in Women's Studies (3 credits)

This course provides an introduction to theories and writing that affect the lives of women. Through the writing of feminist authors, students examine, from mainly the 20th century, the development of feminist theories and debate. Specific authors may include Simone de Beauvoir, Audre Lorde, Gloria Anzaldua, Angela Davis, Adrienne Rich, Monique Wittig, and Chandra Mohanty.

WSDB 291 Introduction to Contemporary Concerns in Women's Studies (3 credits)

This course explores a range of current issues and debates within feminism. Using interdisciplinary feminist theories that consider how systems of power such as patriarchy, capitalism, racism, and heterosexism constitute one another, it examines particular local and global topics of interest/concern which may include health, education, work, violence against women, globalization, militarism, media and cultural representations, families, and feminist activism.

NOTE: Students who have received credit for WSDZ 291 may not take this course for credit.

WSDB 292 Feminisms and Research Methods (3 credits)

Prerequisite: Enrolment in a Women's Studies program or permission of the Institute. This course exposes students to a variety of research practices from a feminist perspective. These practices can include oral history, interviews, archival research, and participant observation. Students learn how to gather, analyze, and effectively present ideas and information. Practical, hands-on exercises offer an opportunity for learning. Examination of research methods occurs in dialogue with questions of how knowledge is organized. Students are also exposed to recent developments in information literacy. This course prepares students to conduct their own research projects throughout their studies.

WSDB 298 Selected Topics in Women's Studies (3 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

WSDB 300 Feminist Perspectives on Human Rights (3 credits)

Prerequisite: 15 credits including WSDB 290, 291, 292; or permission of the Institute. During the late-20th century, human rights became a dominant frame for thinking about social justice. This course questions the role of human rights in struggles for justice, and it examines and critiques practical forms of human rights activism. Primary texts are studied and scholarship from women's studies, history, political science, and anthropology.

NOTE: Students who have received credit for this topic under a WSDB 398 number may not take this course for credit.

WSDB 301 Canada, Colonization and Law (3 credits)

Prerequisite: 15 credits including WSDB 290, 291, 292; or permission of the Institute. Spanning federal, provincial, and international processes, this course explores the legal, political, and social bases for Canada's account of itself as a sovereign country existing on Indigenous territories. The course considers the role of ideas about gender, race, and marriage in settler expansion and Indigenous dispossession. Students study primary texts and scholarship from women's studies, Indigenous studies, history, political science, and law.

NOTE: Students who have received credit for this topic under a WSDB 398 number may not take this course for credit.

WSDB 310 Feminism, Comedy, and Social Change (3 credits)

Prerequisite: See N.B. number (1). In this course, students examine the complex relationship between feminism and comedy through an interdisciplinary framework. The course posits comedic performance as a social/cultural text and considers how comedy might be used to challenge inequalities and promote social change. Topics may include the production and consumption of various genres of comedy; different theories of humour; the connections between comedic performances and key feminist principles; and how social and political issues can be addressed through comedy.

NOTE: Students who have received credit for this topic under a WSDB 398 number may not take this course for credit.

WSDB 365 Feminist Theory and Popular Culture (3 credits)

This course examines how feminism has not only commented on the world of pop culture but has entered and altered it. Through a study of television, film, advertising, pop music, cyber culture, and kiddie culture, students look at the ways in which popular culture has impacted how women view themselves and how they are viewed.

NOTE: Students who have received credit for this topic under a WSDB 398 number may not take this course for credit.

WSDB 370 Workshops in Special Areas of Women's Studies (3 credits)

Prerequisite: See N.B. number (1). The purpose of these workshops is to examine a number of issues relevant to Women's Studies. Specific topics for this course are stated in the Undergraduate Class Schedule.

WSDB 380 Feminist Thought I (3 credits)

Prerequisite: See N.B. number (1). This course introduces students to the main aspects of feminist thought across the disciplines. Through a selection of readings and case studies, feminist thought is examined in two interrelated senses: the exercise of woman-centred inquiry, and feminism as a critique of existing knowledge frameworks. Students are introduced to fundamental feminist notions such as the distinction between the private and the public, the notion of experience, androcentrism, and the division between the family and the economy. The history of feminist thought is explored as well as its articulation since the 1970s and its contribution to Women's Studies and to social theory in general. Also examined is the potential and power of different feminist theories to effect social change and transform the social world they analyze.

WSDB 381 Indigenous Women and Feminisms (3 credits)

Prerequisite: See N.B. number (1). This course aims to acquaint students with the concerns and contemporary realities of Indigenous women in North America. It examines Indigenous politics, activism, and culture through current feminist, decolonizing and post-colonial lenses. The course examines issues such as identity, representation, citizenship, land, sovereignty, nationalism, sexual and social violence, and de/re/colonization. Students develop critical thinking skills necessary to explore how sexism and racism are encoded in Canadian institutions and laws, how Indigenous women have engaged with the resulting disenfranchisement, and how they have been leading actors in Indigenous struggles, making significant contributions to their communities and nations.

NOTE: Students who have received credit for this topic under a WSDB 398 number may not take this course for credit.

WSDB 383 Lesbian Issues and Realities (3 credits)

Prerequisite: See N.B. number (1). This course introduces the field of lesbian studies and examines lesbian existence from a political and empirical perspective. The course engages diverse feminist perspectives on gender, nation, race, class, culture, ability and sexual identity in the lives and political consciousness of lesbians. Attention is paid to Canadian and Quebec contexts.

NOTE: Students who have received credit for this topic under a WSDB 398 number may not take this course for credit.

WSDB 384 Queer Feminism (3 credits)

Prerequisite: See N.B. number (1). This course introduces the critical and discursive legacies of "queer feminism," engaging with a host of identities, bodies, practices and pleasures. The course interrogates the ways in which gender and sexuality intersect with nation, race, class, culture and ability from the point of view of political action and cultural production. Attention is paid to Canadian and Quebec contexts.

WSDB 385 Introduction to Trans Studies (3 credits)

Prerequisite: See N.B. number (1). The first part of the course reviews the emergence of Trans Studies: what came before it and what distinguished it from other forms of knowledge about trans people. Also reviewed is Trans Studies' theoretical and methodological heritage, including the ways in which Feminism and Queer Theory have shaped the field's interests. The second part of the course evaluates Trans Studies in action by looking at selected aspects of some trans people's lives: their history, community building, access to health care and social services, criminalization, and self-narration.

NOTE: Students who have received credit for this topic under a WSDB 398 number may not take this course for credit.

WSDB 386 Framing the Prostitute (3 credits)

Prerequisite: See N.B. number (1): The "problem" of prostitution — specifically the public/visible presence of women providing sexual services to men for money — has long preoccupied Western society. This course explores the frames superimposed on prostitution, regardless of the cultural, religious, scientific, geographic or political context in which it exists.

NOTE: Students who have received credit for this topic under a WSDB 398 number may not take this course for credit.

WSDB 390 Feminist Perspectives on Peace (3 credits)

Prerequisite: See N.B. number (1). Using feminist scholarship, this course covers themes such as militarism, the war industry, women in the military, war mythologies, organized and domestic violence, roles played by women during wars, wars against women, peace education and feminist peace activism.

WSDB 391 Health Issues: Feminist Perspectives (3 credits)

Prerequisite: See N.B. number (1). This course presents feminist, intersectional, postcolonialist, poststructuralist and queer examinations of a variety of women's health issues. It explores the complex cultural politics that tend to legitimize existing power relations in health care, health research, and "health" industries. Topics include biopolitics and surveillance of women's bodies, medicalization and disease mongering, patriarchal capitalism and the health industry, cosmetic surgery and oppression or agency, women's health and sociocultural identifications, feminist medical ethics, and alternative and feminist health care.

WSDB 392 Féminismes dans la francophonie (3 crédits)

Préalable: Voir N.B. numéro (1). A partir de textes théoriques et d'ouvrages traitant de la vie quotidienne, ce cours examine les similitudes, les analogies et les traits distinctifs des luttes des femmes durant les deux dernières décennies, ici et ailleurs dans la francophonie, notamment les luttes des Arabes, des Antillaises ou des femmes d'Afrique noire.

WSDB 393 Critical Race Feminisms (3 credits)

Prerequisite: See N.B. number (1). This course explores the concepts of race, racism, and racialization, alongside feminist theories and practices. Drawing from feminist and critical race theories, the course focuses on questions of power, knowledge production, and interlocking systems of oppression within local and global contemporary contexts. It provides opportunities to reflect upon anti-racist feminist practice and to apply anti-racist analyses.

NOTE: Students who have received credit for this topic under a WSDB 398 number may not take this course for credit.

WSDB 394 Tutorial in Women's Studies (3 credits)

Prerequisite: Enrolment in a Women's Studies program; 24 university credits including WSDB 290, 291, 292 and 380; and permission of the Institute. In addition, students must have a minimum GPA of 3.0 (B) and a demonstrated ability to carry out independent research. Tutorials are given only in exceptional circumstances and should focus on a topic not covered under the normal curriculum. A Tutorial Request form must be completed by the student and then approved by a full-time Simone de Beauvoir Institute faculty member acting as a supervisor.

NOTE: Students who have received credit for this topic under a WSDB 398 or 498 number may not take this course for credit.

WSDB 398 Selected Topics in Women's Studies (3 credits)**WSDB 399 Selected Topics in Women's Studies** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

WSDB 400 Gender Justice in Canadian Law and Policy (3 credits)

Prerequisite: 30 credits including WSDB 290, 291, 292 and 380; or permission of the Institute. This course examines the relationship between law and feminist thought and action in the 20th and 21st centuries. The course confronts the reality that the law underpins a world shot through with injustice, yet those seeking justice often turn to law to remedy that injustice. The course explores how structures of domination underpin the law and how law creates and perpetuates structures of domination. Students read statutes and legal cases and scholarship from law, political science, women's studies, and history.

NOTE: Students who have received credit for this topic under a WSDB 498 number may not take this course for credit.

WSDB 410 Feminisms, Tourism, and Mobilities (3 credits)

Prerequisite: See N.B. number (2). This advanced-level seminar explores gender, race, citizenship, class and sexuality as they manifest in various forms of contemporary tourism. This course, primarily concerned with issues of power, explores an interdisciplinary theoretical framework that privileges feminist transnational/postcolonial and critical race approaches. Some of the issues explored through this course include who can freely, safely and easily cross borders as well as the impacts of tourist consumption. Other themes may include the marketing and commodification of destinations and the interpersonal social encounters that tourism and travel enable.

NOTE: Students who have received credit for this topic under a WSDB 398 number may not take this course for credit.

WSDB 480 Feminist Thought II (3 credits)

Prerequisite: See N.B. number (2). While *Feminist Thought I* examines feminism as critique of theory in various historical and disciplinary topics, this course looks closely at the different feminist theories of the social world. The course considers fundamental concepts of Marxist feminism, post-structuralist feminist theory, feminist critical theory, and post-colonialist feminisms. Students learn how to summarize these different theoretical approaches, as well as how to think about them in a comparative manner.

WSDB 490 Feminist Ethics (3 credits)

Prerequisite: See N.B. number (2). This interdisciplinary seminar considers the effect of systems of gender, race, and class on women's place in society. It takes into account recent developments in feminist scholarship in the humanities and social sciences.

WSDB 491 Feminist Perspectives on Culture (3 credits)

Prerequisite: See N.B. number (2). This seminar explores the central concepts and theories in feminist cultural studies, as they inform feminist, post-colonial, queer, and post-structuralist understandings of culture. The focus is on women as cultural producers and subjects in/of various cultural texts (e.g. cinema, visual arts, music, advertising, popular media, feminist writings). The discursive construction of gender, as it is inflected by class, race, sexuality, and location, is examined as well as the ways in which it is used, displayed, imagined and performed in contemporary culture. Students develop practical and analytical skills, posing questions of how particular cultural narratives function within social, political and economic contexts. Students are required to participate in and lead discussions of the readings and to create and/or critique cultural productions.

WSDB 492 Post-colonial and Anti-colonial Feminist Theories and Practice (3 credits)

Prerequisite: See N.B. number (2). The course is devoted to understanding the gendered dimensions of colonial/imperial relations of power and resistance both in historical and contemporary contexts. The main themes covered in the course include settler colonialism in Canada; knowledge, representations and power; contemporary challenges and resistance to anti-imperialist struggles; and post-colonial analyses of current economic and political relations.

NOTE: Students who have received credit for this topic under WSDB 498 may not take this course for credit.

WSDB 494 Advanced Tutorial in Women's Studies (3 credits)

Prerequisite: Enrolment in a Women's Studies program; 24 university credits including WSDB 290, 291, 292, 380; and permission of the Institute. In addition, students must have a minimum GPA of 3.0 (B) and a demonstrated ability to carry out independent research. Tutorials are given only in exceptional circumstances and should consist of a topic not covered under the normal curriculum. A Tutorial Request form must be completed by the student and then approved by a full-time Simone de Beauvoir Institute faculty member acting as a supervisor.

NOTE: Students who have received credit for this topic under a WSDB 398 or 498 number may not take this course for credit.

WSDB 496 Directed Research (6 credits)

Prerequisite: Enrolment in the Specialization in Women's Studies; 30 credits, including WSDB 290, 291, 292, 380, 480, and permission of instructor. This course is designed for advanced students and is generally only available to students in their final 24 to 30 credits. Students are expected to produce a substantial research project and are supervised by full-time faculty.

WSDB 498 Seminar in Women's Studies (3 credits)**WSDB 499 Seminar in Women's Studies** (6 credits)

Specific topics for these courses, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

John Molson School of Business

61.10	JOHN MOLSON SCHOOL OF BUSINESS	61.60	ECONOMICS
61.20	ADMISSION REQUIREMENTS	61.70	FINANCE
61.21	UNDERGRADUATE DEGREE PROGRAMS	61.80	INTERNATIONAL BUSINESS
61.22	THE CREDIT CORE	61.90	MANAGEMENT
61.25	PROGRAMS WITH THE INSTITUTE FOR CO-OPERATIVE EDUCATION	61.100	MARKETING
61.30	GENERAL INFORMATION	61.130	ADDITIONAL PROGRAM OPTIONS FOR BUSINESS STUDENTS
61.35	JOHN MOLSON SCHOOL OF BUSINESS COURSES	61.140	PROGRAM OPTIONS FOR NON-BUSINESS STUDENTS
61.40	ACCOUNTANCY	61.150	SPECIAL CERTIFICATE PROGRAMS
61.50	SUPPLY CHAIN AND BUSINESS TECHNOLOGY MANAGEMENT	61.160	SPECIAL PROGRAMS IN ACCOUNTANCY

Section 61

Faculty

Dean

ANNE-MARIE CROTEAU, PhD *Université Laval*

Associate Deans

SANDRA BETTON, PhD *University of British Columbia; Professional Graduate Programs*
KATHLEEN BOIES, PhD *University of Western Ontario; Research and Research Programs*
JOOSEOP LIM, PhD *University of California, Irvine; Undergraduate Programs*
ALEXANDRA PANACCIO, PhD *HEC Montréal; Accreditation and Faculty Relations*

Location

Sir George Williams Campus
MB Building, Room: 015-115
514-848-2424, ext. 2779

Mission Statement

"To provide an engaging learning and research environment that empowers us to achieve our greatest potential for the betterment of business and society."

Approved by Faculty Council • May 2019

61.20 ADMISSION REQUIREMENTS

The general requirements for admission to Concordia University are listed in §13.

Cégep Entrance — the 90-credit program

The prerequisites for the 90-credit program are as follows:

Subject*	Concordia Courses:
Calculus I	MATH 209
Linear Algebra	MATH 208
Micro, Macro Economics	ECON 201, 203
Computer Literacy	BTM 200

**NOTE: Equivalencies will be determined at the time of acceptance.*

Students with a DEC will complete the 90-credit program. Students who have a complete DEC but are lacking one or more of the prerequisite courses may take them within the 90-credit program as elective credits during the first year of the program.

Mature Entry — the 108-credit program

In addition to the 90-credit program, Mature Entry students will be required to complete the following 18 credits:

- 6 credits in MATH 208, 209
- 6 credits in ECON 201, 203
- 3 credits in BTM 200
- 3 additional elective* credits

**These elective credits must be selected from outside the offerings of the John Molson School of Business.*

Extended Credit Program — the 120-credit program

In addition to the 90-credit program, students in the Extended Credit Program will be required to complete the following 30 credits:

- 6 credits in MATH 208, 209
- 6 credits in ECON 201, 203
- 3 credits BTM 200
- 3 credits ENGL 210 or 212
- 12 additional elective* credits

**These elective credits must be selected from outside the offerings of the John Molson School of Business.*

NOTE: Because of the extensive use of computers in various programs, students are advised to have access to a personal computer.

61.21 UNDERGRADUATE DEGREE PROGRAMS

The John Molson School of Business offers two distinct undergraduate programs. The Bachelor of/Baccalaureate in Commerce (BComm) is a structured program in which the student will select a major from those offered by the School of Business. The Bachelor of/Baccalaureate in Administration (BAdmin) is a flexible program which permits the student to pursue interests outside the School of Business, and offers the possibility of complementing a fundamental grounding in Administration with minor concentrations in an area of interest. Degree requirements listed below apply to all students entering the program on or after June 1, 2001.

61.21.1 General Education Requirement

The John Molson School of Business is committed to the concept of General Education. Students graduating from the Business programs will have acquired the benefits of a general education through the 12 elective non-Business credits they are required to complete.

61.21.2 The Bachelor of/Baccalaureate in Commerce

The program provides the student with an education for careers in business. This is accomplished through an interdisciplinary curriculum that is intellectually challenging. The first year of the program provides knowledge of fundamental business concepts and operational skills that form the base for the core curriculum. The second year of the program builds on this foundation to provide a broad experience in all phases of business. The interdisciplinary nature of the program allows students to analyze, formulate, judge, and solve challenging business problems. The last year of the program provides students with an opportunity for in-depth study of a specific business discipline.

More specifically, by the end of their BComm studies, students will:

1. apply the core concepts appropriately within each business discipline;
2. analyze business situations and demonstrate critical and analytical thinking to solve problems and make decisions;
3. demonstrate an understanding of global business issues and practices;
4. communicate effectively, both orally and in writing;
5. work effectively in teams;
6. understand ethical issues involving business situations.

As part of the Bachelor of/Baccalaureate in Commerce program, students will select 12 credits of elective courses outside the offerings of the School. Those credits, which will meet the School's General Education requirement, should be chosen in areas that complement the students' overall university education.

Degree Requirements:

- | | |
|----|---|
| 42 | credits from the core |
| 12 | elective credits outside the School of Business |
| 24 | credits to apply towards the major (see Note 1) |
| 12 | elective credits chosen by the student (see Note 1) |

NOTES:

1. All students are required to declare a major. The Major in Human Resource Management requires completion of 30 credits. Consequently, the elective credits chosen by the student are reduced from 12 to 6 credits.
2. Students may add a second major in another business field. A double major requires completion of 102 credits as follows: 42 credits from the core, 12 elective credits outside the School of Business, 24 credits to apply towards the first major, and 24 credits to apply towards the second major. A double major including the Major in Human Resource Management requires completion of 108 credits. Minors in the JMSB are not available with a double major.
3. The School may impose quotas on some majors.

Honours Programs

The John Molson School of Business has programs leading to an honours concentration in selected fields. The honours program consists of a minimum of 30 credits taken in a specified field, in addition to the core program of 42 credits. Refer to §16.2.4 for matters governing honours programs at Concordia. An honours degree, because it testifies to a student's comprehensive education in a particular field, intellectual commitment to that field, and achievement of a high level of academic performance, has traditionally been required of entrants to postgraduate programs.

To enter an honours program, students already admitted to a program in the John Molson School of Business must apply to the department that offers the program. The department will notify the Office of the Associate Dean, Academic and Student Affairs, of the acceptance.

Honours Regulations (Faculty Regulations)

In order to qualify for an honours program, a student must comply with the regulations set forth below.

1. An honours student must meet the general program requirements, as well as the specific requirements for an honours program. Departments may impose additional requirements. A student must complete a minimum of 15 credits in the courses from the honours component of the program at this University to receive a degree with honours. In certain cases, these 15 credits may include specific courses for which transfer credit may not be awarded.

2. Students already admitted to a program at Concordia University may apply for entry into an honours program with a minimum cumulative GPA of 3.30 (B+). Students must have completed a minimum of 30 credits in their program before applying for admission to the honours program. Averages are calculated on Concordia courses only.
3. All students must maintain a minimum cumulative GPA of 3.30 as well as a minimum assessment GPA of 3.30 within the honours program. The minimum acceptable grade in any course is normally "C."
4. Students who are withdrawn from the honours program may proceed in the corresponding major program. Reinstatement in the honours program is possible only by appeal to the Faculty Honours Committee.
5. A student is allowed to qualify for only one honours degree in either a single or combined honours program. A student may qualify for a minor or major program in addition to an honours program.

Students may appeal the determination of their status or interpretation of requirements in the honours program. Such appeals should be addressed to the Associate Dean, Academic and Student Affairs. The John Molson School of Business has an Honours Committee made up as follows: three faculty members; one undergraduate student member; one Student Academic Services advisor (non-voting); one representative of the Office of the Registrar (non-voting); and the Associate Dean, Academic and Student Affairs, who chairs the Honours Committee. The Faculty Honours Committee considers applications from departments submitted on behalf of the students for exceptions to the honours regulations. It also adjudicates disputes between students and departments concerning honours programs. Since the Faculty Honours Committee cannot hear appeals contesting its own judgments, students and departments who wish to appeal a decision of the Faculty Honours Committee should address this appeal to the Dean of the Faculty.

61.21.3 The Bachelor of/Baccalaureate in Administration

The aim of the BAdmin program is to develop capable problem-solvers and decision-makers. The program provides students with a fundamental grounding in administration through the same set of core courses available to BComm students. Furthermore, students have the opportunity to pursue a wide range of interest amongst the various courses offered by the University. BAdmin students are expected to achieve the same learning goals as BComm students by the end of their BAdmin studies.

Degree Requirements:

- 42 credits from the core
- 18 credits from within the School of Business and/or its disciplines
- 30 elective credits chosen by the student, but outside the School of Business, 15 of these must be beyond the introductory level.

NOTE: For the BComm and BAdmin programs, a maximum of nine ESL credits may count toward the regular 90-credit degree, a maximum of 12 credits may count toward the 108-credit degree, and a maximum of 15 credits may count toward the 120-credit degree if the student is required to complete ESL courses. For students who are not required to complete ESL courses a maximum of six ESL credits may count towards their degree. Additional credits in ESL courses will be considered as credits completed above and beyond the degree requirements.

61.22 THE CREDIT CORE

The required 42-credit core is identical for both programs and comprises the following courses:

Courses at the 200 level

- COMM 205 Business Communication
- COMM 210 Contemporary Business Thinking
- COMM 215 Business Statistics
- COMM 217 Financial Accounting
- COMM 220 Analysis of Markets
- COMM 222 Organizational Behaviour and Theory
- COMM 223 Marketing Management I
- COMM 225 Production and Operations Management
- COMM 226 Business Technology Management

Courses at the 300 level

- COMM 305 Managerial Accounting
- COMM 308 Introduction to Finance
- COMM 315 Business Law and Ethics
- COMM 320 Entrepreneurship

Course at the 400 level

- COMM 401 Strategy and Competition

NOTE: Students are responsible for following the correct sequence of courses required for the completion of a particular program.

JOHN MOLSON SCHOOL OF BUSINESS

Program	Honours	Major	Minor	Certificate
Accountancy	X	X		X
Assurance, Fraud Prevention and Investigative Services			X	
Business Studies			X ¹	X ¹
Business Technology Management	X	X		
Data Intelligence			X	
Economics	X	X		
Entrepreneurship			X	
Finance	X	X	X	
Financial Reporting			X	
Foundations for Business				X
Human Resource Management	X	X		
Information Systems Audit and Risk Management			X	
International Business		X	X	
Management	X	X	X	
Marketing		X	X	
Real Estate			X	
Supply Chain Operations Management	X	X		

Students will indicate their preferred field of concentration at the time of application for entry. It should be noted that students may change their major and/or minor after completion of their first year of study.

¹This program is not open to students registered in a program leading to the undergraduate degree of Commerce or Administration. Students may transfer into the certificate program up to 12 credits earned in an incomplete degree or certificate program or as an Independent student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the program.

61.22.1 Academic Performance Regulations

NOTE: The GPA regulations apply to all students, including those with Visiting status, registered in programs offered by the John Molson School of Business. This also includes the Minor in Business Studies and certificate programs.

The objectives of these regulations are:

- a) to ensure that the School of Business can certify that all of its graduates are qualified to enter their profession;
- b) to ensure that students can, with the assistance or intervention of the School of Business, assess themselves objectively, and plan programs of study designed to meet their individual needs.

Assessment Grade Point Average (AGPA)*

Requirements and Consequences

*See §16.3.10, II for definition of AGPA.

Acceptable standing requires that a student obtain an AGPA of at least 2.00.

NOTE: Although a "C-" grade (1.70 grade points) is designated as satisfactory in §16.1.11, an AGPA of 2.00 is required for acceptable standing.

Students in acceptable standing must repeat all courses in which failing grades were obtained provided that these courses are required for their program.

Conditional standing results when a student obtains an AGPA between 1.50 and 2.00. Students in conditional standing may not write supplemental examinations but may proceed subject to the following conditions:

- a) they must receive academic counselling from the appropriate member of the Dean's Office;
- b) they must successfully repeat all courses in which failing grades were obtained provided that these courses are required for their program, or replace them by alternatives approved by the Dean's Office;
- c) in no case will the number of credits exceed 15 per term for full-time students and six per term for part-time students;
- d) they must obtain acceptable standing at the time of their next assessment. If not, they are considered to be in failed standing.

Failed standing results when a student obtains an AGPA of less than 1.50, or fails to achieve acceptable standing after being on conditional standing at the last assessment.

- Failed students are subject to the following regulations:
 1. They may not write supplemental examinations.
 2. They are dismissed from their program for a minimum period of one year.
- Students who are in failed standing for a second time are dismissed from the University for a longer period of time.
- In subsequent years, should failed students wish to return to university studies, they must contact the Office of the Associate Dean, Academic and Student Affairs, for information concerning conditions and procedures for seeking readmission.
- Readmission is not automatic and is dependent upon an assessment of the applicant's prospects for successful completion of the program. If readmitted, students will be placed on academic probation and restricted to a maximum of six credits per term. They must achieve acceptable standing at the time of their next assessment. Other conditions will be determined at the time of readmission.
- Decisions of the relevant authority in the Faculty to which application is made are final.

Graduation Requirements

Students must satisfy all course requirements, be in acceptable standing, and have a minimum final graduation GPA of 2.00. The standings of potential graduates who have attempted less than 12 credits since their last assessment are determined after adding the grade points obtained for these credits to those included in the computation of the GPA of the last assessment period. Students who fail to meet acceptable standing but meet conditional standing will have the following options:

- a) register for 12 credits and meet the criteria for acceptable standing;
- b) register for fewer than 12 credits. In this case, standing will be determined after adding the grade points obtained for these credits to those included in the computation of the GPA of the last assessment period.

NOTE: Dean's Office is to be understood as being the appropriate member of the Dean's Office, normally the Associate Dean, Academic and Student Affairs, or delegate.

61.22.2 Registration Regulations

- 1. Students in the John Molson School of Business who have a lapse in their program of study for six consecutive terms or more will not be allowed to continue in their program before meeting with an academic advisor.
 - 2. Students are allowed to register in a maximum of 12 credits during the summer session (including a maximum of six credits in any term within that session), except for students following the co-operative format of the program.
-

61.25 PROGRAMS WITH THE INSTITUTE FOR CO-OPERATIVE EDUCATION

The Institute for Co-operative Education offers a number of work-integrated learning opportunities to students in the John Molson School of Business. Work-integrated learning is a model of experiential learning that bridges the academic program and the world of work. It provides students with the opportunity to combine study with paid work terms in their chosen fields, bringing a wealth of benefits to both students and their employers.

Co-operative Education Format

The co-op format is available in the following majors:

- Accountancy
- Business Technology Management
- Finance
- Human Resource Management
- International Business
- Marketing
- Supply Chain Operations Management

The academic content is identical to that of the regular BComm program with three work terms interspersed with six study terms. However, in order to continue their studies in the co-operative format in the John Molson School of Business, or to graduate with a BComm degree as members of the Institute for Co-operative Education, students must satisfy the following conditions:

- maintain a cumulative grade point average (CGPA) of at least 2.70 in their program;
- be assigned a grade of pass for each of the three work-term experiences;
- remain in the designated work-study sequence. Any deviations must have prior approval by the Director of the Institute for Co-operative Education or delegate in consultation with the academic director of the student's co-op program.

Please refer to §24 of this Calendar for a full description of the co-operative format of the program.

C.Edge (Career Edge) Option

The C.Edge option is available in the following programs in the BComm and BAdmin degrees:

- Accountancy
- Business Technology Management
- Economics

- Finance
- Human Resource Management
- International Business
- Management
- Marketing
- Supply Chain Operations Management

The academic content is identical to that of the regular program with the addition of a four-month internship. However, in order to enrol in the C.Edge option in the John Molson School of Business, students must satisfy the requirements set by the individual department and the Institute for Co-operative Education. Students may have the C.Edge option recorded on their official transcript and student record, provided they successfully complete the Internship and Reflective Learning course associated with the option.

Please refer to §24 of this Calendar for a full description of the C.Edge format and requirements.

Accelerated Career Experience Option

A limited number of students in the BAdmin or BComm programs are permitted to supplement their studies with the Accelerated Career Experience option.

Admission Requirements

Students may apply to this option if they meet the following criteria:

1. must have a minimum cumulative grade point average (CGPA) of 2.70;
2. must have completed at least 24 credits in their degree before applying;
3. must have at least 15 credits remaining after the completion of the Accelerated Career Experience work term.

The academic content is identical to that of the regular program with the addition of one 12- or 16-month work term. However, in order to continue their studies in the Accelerated Career Experience option in the John Molson School of Business, students must satisfy the following conditions:

- maintain a CGPA of at least 2.70 in their program;
- be assigned a grade of pass for the work term.

Please refer to §24 of this Calendar for a full description of the Accelerated Career Experience option.

61.30 GENERAL INFORMATION

Failures/Prerequisites

Students are cautioned that if they fail a course that is a prerequisite for a subsequent course, they should repeat and pass that failed course before registering in the subsequent course. For example, a student who fails COMM 217 in the fall term, and has registered in COMM 305 in the subsequent winter term, must drop COMM 305 and repeat COMM 217 in the winter term before registering in COMM 305 again.

Students who are not able to register in the failed course(s) should contact the undergraduate programs' office during the course-change period at the beginning of each term.

Students who are registered for a course in which they do not have the appropriate prerequisite must adjust their registration accordingly. The Office of the Associate Dean reserves the right to deregister those students who do not adhere to academic regulations.

NOTE: THERE ARE NO SUPPLEMENTAL EXAMINATIONS IN THE JOHN MOLSON SCHOOL OF BUSINESS.

Proficiency in Canada's Official Languages

The business community and governments have a preference for university graduates who are functional in both the English and French languages. All students are therefore advised to take advantage of the opportunities available to them at this University to ensure that they have good command of these two languages upon graduation.

61.35 JOHN MOLSON SCHOOL OF BUSINESS COURSES

COMM 205 *Business Communication* (3 credits)

Prerequisite: BTM 200 or equivalent previously or concurrently. This course focuses on the principles and techniques of clear, concise, and effective, written and oral communication, especially as they apply to business. The formal, grammatical, and stylistic elements of written and oral business communication are emphasized. In addition, students are instructed in and experience the use of audiovisual means of communication.

NOTE: Students who have received credit for COMM 212 may not take this course for credit.

NOTE: It is recommended that part-time students complete this course, along with COMM 210, as early in their program as possible.

COMM 210 *Contemporary Business Thinking* (3 credits)

Prerequisite: COMM 205 previously or concurrently; ECON 201 or 203 or equivalent previously or concurrently. This course presents a broad survey of the world of business and aims to incite students to develop a critical perspective on business literature. Students explore foundational business theories, by studying business articles and books, and evaluating the central

ideas for scope, relevance, and managerial utility. The course also fosters students' inclination to keep well informed about contemporary issues in organizations and business. Basic group work techniques and basic project management skills guide the students to complete group assignments.

NOTE: It is recommended that part-time students complete this course, along with COMM 205, as early in their program as possible.

COMM 215 *Business Statistics* (3 credits)

Prerequisite: MATH 208 or equivalent; MATH 209 or equivalent; BTM 200 or INTE 290 or COMP 248 previously or concurrently.

This course introduces the fundamentals of statistics as applied to the various areas of business and administration. Topics covered include techniques of descriptive statistics, basic theory of probability and probability distributions, estimation and hypotheses testing, chi-square tests in contingency table analysis and for goodness-of-fit, and linear regression and correlation.

COMM 217 *Financial Accounting* (3 credits)

Prerequisite: COMM 210 previously or concurrently. This course examines the theory and practice involved in measuring, reporting, and analyzing an organization's financial information. Concepts underlying financial statements are discussed, with an emphasis on generally accepted accounting principles. Disclosures/requirements concerning financial statements as well as information needs of decision-makers are introduced.

COMM 220 *Analysis of Markets* (3 credits)

Prerequisite: COMM 210, 215; ECON 201 or equivalent; ECON 203 or equivalent previously or concurrently. This course provides a general perspective on the history, operation and relationships between Canadian and international product, labour and financial markets. Specifically, students are introduced to issues of fundamental importance to today's managers and entrepreneurs such as changes in structure and competitiveness in these markets in response to government policies, the determination and behaviour of interest rates, inflation, market integration, and the role and function of financial intermediation. It further provides students with the knowledge of the role and impact of regulation and other government interventions in these markets.

COMM 222 *Organizational Behaviour and Theory* (3 credits)

Prerequisite: COMM 205, 210. This course is designed to provide students with an opportunity to study individual behaviour in formal organizations. Through theoretical case and experiential approaches, the focus of instruction progressively moves through individual, group and organizational levels of analysis. Topics in the course include perception, learning, personality, motivation, leadership, group behaviour, and organizational goals and structure.

COMM 223 *Marketing Management I* (3 credits)

Prerequisite: COMM 205, 210 previously or concurrently. This survey course introduces students to the key concepts in marketing. Topics covered include marketing strategy, buyer behaviour, and the impact of technology on the discipline. The course also explores the important role that marketing plays in advancing society.

NOTE: Students who have received credit for COMM 224 or MARK 201 may not take this course for credit.

COMM 225 *Production and Operations Management* (3 credits)

Prerequisite: COMM 205, 210, 215. This course is an introduction to contemporary operational issues and techniques in the manufacturing and service sectors. Among the topics covered are operations strategy, forecasting, materials' management, total quality management, time-based competition, and minimal manufacturing. Mathematical modelling in resource allocation is also introduced. Cases and computer-aided quantitative tools for decision-making are used throughout the course with an emphasis on the interactions between production/operations management and other business disciplines.

COMM 226 *Business Technology Management* (3 credits)

Prerequisite: COMM 210 previously or concurrently. The objective of this course is to provide students with an understanding of the role of information technology in business organizations. Students learn how information technologies can be used to create business value, solve business problems, accomplish corporate goals and achieve and maintain a competitive advantage.

NOTE: Students who have received credit for COMM 301 may not take this course for credit.

COMM 299 *Special Topics in Business* (3 credits)

This course enables students to focus on a specific topic in business that is of interest to all students.

COMM 305 *Managerial Accounting* (3 credits)

Prerequisite: COMM 217. This course covers the development of accounting information to assist management in carrying out its functions effectively and efficiently. Concepts and techniques for planning, performance evaluation, control, and decision-making are introduced. New developments are addressed with a focus on contemporary business issues and real-world applicability of management accounting concepts and techniques.

COMM 308 *Introduction to Finance* (3 credits)

Prerequisite: COMM 217; COMM 220 previously or concurrently. This course provides a general understanding of the fundamental concepts of finance theory as they apply to the firm's long-run and short-run financing, and investment decisions. Building on the objective of firm value maximization, students become familiar with the conceptual issues underlying risk and return relationships and their measurements, as well as the valuation of financial securities. They also learn the concept of cost of capital, its measurement, and the techniques of capital budgeting as practised by today's managers. Students are introduced to the basic issues surrounding the firm's short-term and long-term funding decisions and its ability to pay dividends.

COMM 315 *Business Law and Ethics* (3 credits)

Prerequisite: COMM 308. This course introduces students to important legal and ethical issues that they may encounter within a business organization. Through the study of laws, ethical principles and court judgments, students develop an understanding of legal and ethical issues, as well as the skills necessary to assist them in making sound legal and ethical decisions.

COMM 320 *Entrepreneurship* (3 credits)

Prerequisite: COMM 222, 223 or 224, 305, 308. This course introduces students to entrepreneurship. Students analyze and integrate entrepreneurship concepts into business development cases. They research, prepare, and present a comprehensive business plan that may involve commercial, technological and social innovations delivered through new projects by either new business ventures or existing firms. Since the business plan integrates aspects of accountancy, marketing, financing, human resources management, and operations management, students benefit from knowledge of entrepreneurship, regardless of their career goals. Project activities require teamwork, leadership and communication skills.

COMM 401 *Strategy and Competition* (3 credits)

Prerequisite: 45 business credits including COMM 225; COMM 226 or 301; COMM 315 and 320 previously or concurrently. This capstone course requires graduating students to demonstrate their ability to integrate the knowledge and skills they have acquired during their program. This course introduces the major models and theories in strategic management. Emphasis is on integrating concepts and methods for systematically assessing the external environment and internal company conditions that influence firm performance. Lecture topics and case studies are selected to portray the nature of the strategic process and the dynamics of competition in a variety of contexts. Additionally, the connection between organizational strategy and the physical environment is examined.

NOTE: Students who have received credit for COMM 310 may not take this course for credit.

COMM 499 *Seminar Course* (3 credits)

Prerequisite: To be determined each academic term. This course enables students, on an individual basis, to further focus on a specialized topic within their discipline.

Faculty

Associate Professor and Chair of the Department
SOPHIE AUDOUSSET-COULIER, PhD HEC Paris, CPA CGA

Professors

IBRAHIM M. ALY, PhD University of North Texas
EMILIO BOULIANNE, PhD HEC Montréal, FCPA FCMA
CHARLES DRAIMIN, PhD Concordia University, CPA CA
MAJIDUL ISLAM, PhD Moscow Institute of National Economy, CPA CGA
GEORGE K. KANAAN, PhD University of Wisconsin-Madison
MANMOHAN RAI KAPOOR, PhD University of Toronto, RIA/CMA
CÉDRIC LESAGE, PhD Université de Rennes
MICHEL MAGNAN, PhD University of Washington, FCPA FCA; Provost's Distinction
DOMINIC PELTIER-RIVEST, PhD Florida State University, CFE

Associate Professors

CHIRAZ BEN ALI, PhD Paris-Dauphine University
KELLY GHEYARA, PhD Oklahoma State University, CA
LUO HE, PhD Queen's University
ALEXEY LYUBIMOV, PhD University of Central Florida
CLAUDINE MANGEN, PhD University of Rochester
RUCSANDRA MOLDOVAN, PhD ESSEC Business School
ELISABETH PELTIER, PhD City University of New York
MATTHAEUS TEKATHEN, PhD EBS Business School in Wiesbaden, Germany
LI YAO, PhD Purdue University

Assistant Professors

MICHAEL BOURNE, PhD University of Alberta
AHMAD HAMMAMI, PhD McGill University

Senior Lecturers

PATRICK DELANEY, BComm Concordia University, CPA CA
GAIL FAYERMAN, MBA McGill University, CPA CA
TREVOR HAGYARD, BComm Concordia University, CPA CMA CA
TOMEK KOPCZYNSKI, BComm McGill University, CPA CMA
TARA RAMSARAN, MBA Concordia University, CPA CA
MERVAT SALEH, BComm Concordia University, CPA CA

Lecturers

VANESSA CAMPBELL, BComm Concordia University, CPA CA
LAURENT DENAUT, BAdmin Université de Sherbrooke, CPA CMA
EVA LAGOU, MBA Concordia University, CPA CMA

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus
MB Building, Room: 014-205
514-848-2424, ext. 2764

Department Objectives

The Department of Accountancy is committed to remaining a national leader in accounting education through teaching, research and service.

Teaching: Providing a first-rate educational experience that prepares a diverse population of students for successful careers.

Research: Creating and disseminating knowledge of accounting-related issues through reputable channels.

Service: Providing expertise that enhances the well-being of the University, the accounting profession and society in general.

Programs

- 30 Honours in Accountancy
15 ACCO 310, 320, 330, 340, 400
9 additional credits offered by the Department
6 ACCO 495

Students are eligible to apply to the honours program if they have completed ACCO 310, 320 and 330. Applicants must have achieved a minimum cumulative GPA of 3.3 and a minimum GPA of 3.5 in their Accountancy courses. Enrolment in this program is limited. The selection process may include recommendations from faculty members as well as interviews of applicants to this program. The deadline for applications is March 1 for admission the following academic year.

Students must maintain a minimum cumulative GPA of 3.3 in their Accountancy courses and achieve a minimum grade of B+ in ACCO 495 to remain in the honours program. Students who are withdrawn from the honours program may proceed in the Major in Accountancy.

- 24 Major in Accountancy
15 ACCO 310, 320, 330, 340, 400
9 additional credits offered by the Department
- 12 Minor in Assurance, Fraud Prevention and Investigative Services
12 ACCO 350, 360, 455, 465
- 12 Minor in Financial Reporting
9 ACCO 310, 320, 355
3 additional credits offered by the Department
- 12 Minor in Information Systems Audit and Risk Management
12 Chosen from ACCO 350, 360, 455; BTM 382, 430, 440
-

Accountancy Co-operative Program

Director

TARA RAMSARAN, *Lecturer*
514-848-2424, ext. 2756

The Accountancy co-operative program is offered to students who are enrolled in the BComm program and are majoring in Accountancy.

The academic content of the co-op program is identical to that of the regular program, but three work terms are interspersed with six study terms.

Students are supervised individually and must meet the requirements specified by the John Molson School of Business and the Institute for Co-operative Education in order to continue their studies in the co-op format.

Liaison between the student, the employers, and the Institute for Co-operative Education is provided by the Accountancy co-op academic director and the co-op committee.

Please refer to §24 of this Calendar for a full description of the co-operative format of the program.

Courses

ACCO 220 *Financial and Managerial Accounting* (3 credits)

This course provides an introduction to accounting principles underlying the preparation of financial reports with an emphasis on the relationship between accounting information and production decisions. It examines the relationship between costs, production volume, and profit, as well as the practical benefits of standard costs for planning and control purposes. The role of accounting information in various manufacturing decisions is also highlighted.

NOTE: This course would be useful to Engineering students.

NOTE: JMSB students may not take this course for credit.

NOTE: Students who have received credit for ACCO 230, 240 may not take this course for credit.

ACCO 230 *Introduction to Financial Accounting* (3 credits)

This course provides an introduction to accounting concepts underlying financial statements of organizations. It focuses on the analysis, measurement, and reporting of business transactions to users of financial statements. It also examines the uses and limitations of accounting information for investment and credit decisions.

NOTE: JMSB students may not take this course for credit.

NOTE: Students who have received credit for ACCO 220 may not take this course for credit.

ACCO 240 *Introduction to Managerial Accounting* (3 credits)

Prerequisite: ACCO 230. This course examines the role of accounting information for decision making, and focuses on concepts and techniques used in planning operations, controlling activities, and evaluating managerial performance. New developments are addressed with a focus on contemporary business issues and real-world applicability of management accounting concepts and techniques.

NOTE: JMSB students may not take this course for credit.

NOTE: Students who receive a passing grade may be exempt from COMM 305.

NOTE: Students who have received credit for ACCO 220 may not take this course for credit.

ACCO 310 *Financial Reporting I* (3 credits)

Prerequisite: COMM 305 previously or concurrently. Intensive study is made of the theory and practice of external financial reporting by business organizations, focusing on concepts and procedures underlying the measurement of assets and the determination of income.

ACCO 320 *Financial Reporting II* (3 credits)

Prerequisite: ACCO 310. This course continues the intensive study of ACCO 310, with particular emphasis on accounting for liabilities, shareholders' equity, and other related topics such as earnings per share, pension accounting, and accounting for income taxes.

ACCO 330 *Cost and Management Accounting* (3 credits)

Prerequisite: COMM 305. This course provides an examination of the techniques, systems, and procedures applicable to the managerial use of accounting information for planning, decision-making, and control. Topics include cost accumulation and allocation, product and process costing, flexible budgeting and variance analysis, evaluation of managerial performance, and transfer pricing.

ACCO 340 *Income Taxation in Canada* (3 credits)

Prerequisite: COMM 217. This course provides core knowledge regarding the federal income tax structure and the Canadian goods and services tax system. It examines the taxation of employment, business, property income, capital gains and other sources of income for an individual.

ACCO 350 *Accounting and Information Technology* (3 credits)

Prerequisite: COMM 226 or 301, 305. This course examines the role of computerized accounting information systems (AIS) in organizations. Students learn how to justify, design, and utilize AIS to provide pertinent information to managers for decision making. The course helps to identify appropriate usage of information technology in specific accounting contexts. Topics include e-business, computer fraud, information systems security and controls, systems analysis, and management of information technology.

ACCO 355 *Analysis of Financial Statements* (3 credits)

Prerequisite: COMM 305, 308. This course explores the usefulness and limitations of financial statements for investment and credit decisions. It focuses on the interpretation of the information contained in financial statements which reflect the economic characteristics of the firm and its strategic business decisions. Instruments and techniques for financial statement analysis are discussed and applied to case studies and actual companies.

NOTE: This course would be useful for students in Finance and Management.

ACCO 360 *Principles of Auditing* (3 credits)

Prerequisite: COMM 305. This course examines the concepts and methods of auditing and how internal and external audits are integrated in a more general corporate governance and risk management framework. The importance of the design and monitoring of effective internal controls is highlighted. The objectives, concepts and methods of auditing are illustrated with examples and short cases. They are also applied to solve simple problems and cases.

NOTE: Students who have received credit for ACCO 450 may not take this course for credit.

ACCO 365 *U.S. Federal Taxation* (3 credits)

Prerequisite: COMM 217 or ACCO 230. This course familiarizes the student with individual and corporate taxation in the U.S. The use of professional judgment in the application of tax planning recommendations is also addressed in this course.

NOTE: Students who have received credit for this topic under an ACCO 470 number may not take this course for credit.

ACCO 400 *Accounting Theory* (3 credits)

Prerequisite: ACCO 320. This course examines the theoretical foundations of the contemporary approach to financial reporting, and the political and pragmatic considerations in the development of the conceptual framework underlying current accounting standards. Alternative theories of accounting are discussed and controversial areas are emphasized.

ACCO 420 *Financial Reporting III* (3 credits)

Prerequisite: ACCO 320. This course examines the theory and practice of accounting for intercorporate investments, business combinations, consolidation of financial statements, and foreign currency transactions and operations.

ACCO 425 *Financial Reporting IV* (3 credits)

Prerequisite: ACCO 320. This course addresses special topics in accounting including financial reporting for not-for-profit organizations and government entities. Governance, social responsibility concepts, and accountability frameworks are illustrated by comparing the practices of selected organizations with authoritative standards.

NOTE: Students who have received credit for ACCO 410 may not take this course for credit.

ACCO 435 *Strategic Accounting Case Analysis* (3 credits)

Prerequisite: ACCO 320, 330; COMM 401 previously or concurrently. This course integrates topics in financial and management accounting, finance, and business strategy covered in previous courses. Students are involved in a case environment that requires them to analyze the external and internal environments of a business, perform financial analysis, evaluate alternatives, and recommend a plan of action. Students are introduced to enterprise resource planning (ERP) platforms used in companies, asset financing, and aspects of commercial lending to assess financing alternatives.

NOTE: Students who have received credit for this topic under an ACCO 470 number may not take this course for credit.

ACCO 440 *Advanced Taxation* (3 credits)

Prerequisite: ACCO 340. This course provides core knowledge regarding the federal taxation of corporations, partnerships, and trusts. It introduces analytical skills needed to make decisions regarding various business transfers, combinations, incorporation and estate planning issues for corporations and shareholders.

ACCO 455 *Fraud Prevention and Investigation* (3 credits)

Prerequisite: COMM 217, 315. This course examines the principles of and methodology used in fraud detection and deterrence. Topics covered may include skimming, cash larceny, cheque tampering, billing, payroll and expense reimbursement schemes, non-cash misappropriations, corruption, fraudulent financial statements, conducting investigations and interviewing witnesses. This course may also examine auditors' legal responsibilities towards fraud, the evaluation of internal controls and important pieces of legislation such as the Sarbanes-Oxley Act and the Criminal Code. Finally, the ethical aspects associated with fraud are discussed. Class sessions consist of lectures, real-life fraud case discussions and the presentation of DVDs from the Association of Certified Fraud Examiners.

NOTE: Students who have received credit for this topic under an ACCO 470 number may not take this course for credit.

ACCO 465 *Advanced Assurance Services* (3 credits)

Prerequisite: ACCO 320, 360; or ACCO 450. This course covers important topics and concepts in auditing and assurance services. It builds on audit principles covered in previous courses and introduces specialized and advanced topics that are of particular importance to professional accountants. In covering topics and their application, the course focuses on decision-making processes followed by auditors.

NOTE: Students who have received credit for this topic under an ACCO 470 number may not take this course for credit.

ACCO 470 *Special Topics in Accounting* (3 credits)

Prerequisite: Written permission of the Department. This course is intended to complement accounting courses taken previously or concurrently at the senior level. It provides an opportunity for more intensive study in one or more specific topics in accounting.

NOTE: Specific topics for this course and prerequisites relevant in each case are stated in the Undergraduate Class Schedule.

ACCO 495 *Honours Seminar in Accountancy* (6 credits)

Prerequisite: Enrolment in the honours program; ACCO 400 previously or concurrently. This seminar is offered to students in the Honours in Accountancy program over the course of two terms. In the first term, the seminar surveys accounting history, research methodology and recent research in topics covered in the Accountancy curriculum. In addition, students begin working on a research or case project to be conducted under the supervision of a faculty member. In the second term, students complete their project for submission by the end of the term. Presentation of the project at a poster session or department seminar is also required.

SUPPLY CHAIN AND BUSINESS TECHNOLOGY MANAGEMENT

Section 61.50

Faculty

Professor and Interim Chair of the Department
RUSTAM VAHIDOV, PhD Georgia State University

Professors

MERAL BÜYÜKKURT, PhD Indiana University
SATYAVEER CHAUHAN, PhD University of Metz
ANNE-MARIE CROTEAU, PhD Université Laval
DALE DOREEN, PhD University of Alabama
DENNIS KIRA, PhD University of British Columbia
TAK KWAN MAK, PhD University of Western Ontario
DANIELLE MORIN, PhD McGill University
FASSIL NEBEBE, PhD Queen's University
RAAFAT SAADE, PhD Concordia University
AHMET SATIR, PhD University of Manchester Institute of Science and Technology
MAHESH SHARMA, MEng MBA McGill University, Provost's Distinction

Associate Professors

ANNE BEAUDRY, PhD HEC Montréal
XIAO HUANG, PhD Marshall School of Business, University of Southern California
NAVNEET VIDYARTHİ, PhD University of Waterloo

Assistant Professors

MOHSEN FARHADLOO, PhD University of California, Merced
SALIM LAHMIRI, PhD Université du Québec à Montréal
MAHDI MIRHOSEINI, PhD HEC Montréal
ARMAN SADREDDIN, PhD Queen's University
ANTON SHEVCHENKO, PhD University of Nevada, Reno
AHUJA SUCHIT, PhD Queen's University
PAN XIAODAN, PhD University of Maryland

Senior Lecturer

RAUL VALVERDE, PhD University of Southern Queensland

Lecturer

JOE ABOU JAOUDE, PhD Concordia University

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus
MB Building, Room: 012-115
514-848-2424, ext. 2982

Department Objectives

The Department of Supply Chain and Business Technology Management prepares students with an integrated set of decision-making skills to meet the organizational and managerial needs of the business world. The Major in Business Technology Management aims to equip students with knowledge and skills in information and communication technology, business process analysis, and project management. It prepares graduates for careers in various business technology areas such as information systems analysis and design, database administration, as well as management of information technology. The Major in Supply Chain Operations Management aims to provide the knowledge and skills needed for planning and execution of end-to-end supply chains. It provides students with sufficient academic, technical and professional foundations that will enable them to pursue a challenging and rewarding career that covers planning, procurement, manufacturing, services, transportation, logistics and distribution, among others.

The Minor in Data Intelligence provides a knowledge base to complement the student's program at the John Molson School of Business. With training in data modelling, forecasting and data mining, students learn to build models for analyzing business problems that help organizations avoid risk and exploit opportunities.

Programs

24 Major in Supply Chain Operations Management
21 SCOM 361, 363, 372, 374, 492, 498; BSTA 450
3 Chosen from BTM 382, 430, 480; SCOM 491

12 Minor in Supply Chain Operations Management
12 SCOM 361, 363, 372, 374

24 Major in Business Technology Management
18 BTM 380, 382, 480, 481, 495, 496
6 Chosen from BTM 387, 395, 430, 440

12 Minor in Business Technology Management
9 BTM 382, 481, 496
3 Chosen from BTM 387, 480

12 Minor in Data Intelligence
12 BSTA 445, 450, 477, 478

12 Minor in Information Systems Audit and Risk Management
12 Chosen from ACCO 350, 360, 455; BTM 382, 430, 440

Business Technology Management/Supply Chain Operations Management Co-operative Programs

Director

RAUL VALVERDE, *Senior Lecturer*
514-848-2424, ext. 2968

The Department of Supply Chain and Business Technology Management offers two co-operative programs for students who are enrolled in the BComm program: Business Technology Management – BTM (for students majoring in BTM), and Supply Chain Operations Management – SCOM (for students majoring in SCOM).

The academic content of each co-op program is identical to that of the regular program, but three work terms are interspersed with six study terms.

Students are supervised individually and must meet the requirements specified by the John Molson School of Business and the Institute for Co-operative Education in order to continue their studies in the co-op format.

Liaison between the student, the employers, and the Institute for Co-operative Education is provided by the co-op academic director and the co-op committee.

Please refer to §24 of this Calendar for a full description of the co-operative format of the program.

Courses

BUSINESS STATISTICS

BSTA 445 Statistical Software for Data Management and Analysis (3 credits)

Prerequisite: COMM 215 or equivalent. This course presents the principles and techniques of widely used statistical software systems, such as SAS, for data management (information storage and retrieval), data modification, file handling, and statistical analysis and reporting. The course covers special features such as graphics, macro languages, software and/or library interfacing and the basics of data mining. Classes are to be held in computer labs and half of the time is devoted to lab work.

NOTE: Students who have received credit for DESC 445 may not take this course for credit.

BSTA 450 Statistical Models for Data Analysis (3 credits)

Prerequisite: COMM 215. This course introduces and examines the role of contemporary statistical methods in improving business and industrial processes. The methodologies selected for discussion represent those that are most extensively used in contemporary business studies and analyses. The topics covered include modern statistical thinking, linear regression analysis, logistic regression, and experimental methods in product and process designs. The course involves mostly analyses of real-life data using statistical software packages. The understanding of the rationale of the methodologies introduced is also emphasized.

NOTE: Students who have received credit for DESC 376, 378, or BSTA 378 may not take this course for credit.

BSTA 477 Managerial Forecasting (3 credits)

Prerequisite: COMM 215 or equivalent. Reliable managerial forecasts of business variables must often be obtained against a background of structural changes in markets. This course focuses on the theory and applications of the most widely used methods of forecasting including decomposition methods, exponential smoothing, and the Box-Jenkins (ARIMA Building) techniques for non-seasonal and seasonal modelling. Recent approaches in forecasting such as artificial neural networks are also introduced. Business and economic databases are analyzed using statistical software packages in both class and project assignments.

NOTE: Students who have received credit for DESC 477 may not take this course for credit.

BSTA 478 Data Mining Techniques (3 credits)

Prerequisite: COMM 215. The course covers essential ideas and techniques for extracting information from large amounts of data. It discusses both supervised and unsupervised methods, and covers topics such as dimension reduction, multiple regression, logistic regression, discriminant analysis, classification and regression trees, neural networks, association rules, cluster analysis and multi-dimensional scaling. Illustrations of the concepts and methods are given, and students gain practical experience in data mining with the use of popular data mining software.

NOTE: Students who have received credit for DESC 478 may not take this course for credit.

BSTA 490 Special Topics in Business Statistics (3 credits)

Prerequisite: Permission of the Department. This course allows for more intensive examination of one or more topics in business statistics.

BUSINESS TECHNOLOGY MANAGEMENT

BTM 200 Fundamentals of Information Technology (3 credits)

This course covers topics in information and communications technologies, including software, hardware, the Internet, and office productivity applications. Students learn about the technologies and their use, as well as acquire hands-on experience in key software applications.

NOTE: Students who have received credit or exemption for DESC 200, INTE 290, or for this topic under a COMM 499 number or equivalent, may not take this course for credit.

NOTE: Students enrolled in Mathematics and Statistics programs may not take this course for credit.

BTM 380 Introduction to Business Application Development (3 credits)

Prerequisite: COMM 226, 301. This course introduces students to the fundamentals of developing computer applications. Students gain knowledge and learn techniques necessary for building business applications, based on the modern object-oriented development paradigm. Students learn the principles of object-oriented programming using a contemporary language and integrated development environment. Topics include control structures, objects, classes, inheritance, class hierarchies, and polymorphism. Using appropriate business examples, this course enables students to solve business problems using the fundamentals of object-oriented programming.

NOTE: Students who have received credit for DESC 381 or 391 may not take this course for credit.

BTM 382 Database Management (3 credits)

Prerequisite: COMM 226 or 301. This course provides a comprehensive foundation for designing, building, and working with databases, enabling students to understand and use commercially available database products effectively. The course examines different models of representing data with emphasis on the relational model. Topics include data modelling, database design, queries, transaction management, implementation issues, and an overview of distributed database management systems, data warehouses, databases in electronic commerce, and database administration. Examples are drawn from various functional and operational areas including enterprise and supply chain operations, management, and planning.

NOTE: Students who have received credit for DESC 382 may not take this course for credit.

BTM 387 E-Business (3 credits)

Prerequisite: COMM 226 or 301. This course covers the essentials of how e-business is conducted and managed. Its major opportunities, limitations, risks, and issues for individuals, organizations, and society are discussed. Topics covered include e-business architectures, models, technologies, and privacy and security issues. Applications such as e-learning, e-government, and telemedicine are also discussed.

NOTE: Students who have received credit for DESC 387 may not take this course for credit.

BTM 395 Internet Programming (3 credits)

Prerequisite: BTM 380. This course covers the concepts and tools used in programming of business systems that require Internet connectivity. Methods and technologies used to build web-based systems including e-business, e-learning, and online meeting places are discussed. The course gives students the opportunity to learn about and use such technologies as scripting, interactive charting, and database connectivity.

NOTE: Students who have received credit for DESC 395 may not take this course for credit.

BTM 430 Enterprise Resource Planning and Information Technology Integration (3 credits)

Prerequisite: COMM 225, 226 or 301. This course responds to the demand for the integration of technological and business resources by providing the student with opportunities to understand and analyze practical business problems and processes via the use of enterprise resource planning (ERP) applications. Topics include analysis and design for information technology

integration, implementation strategies, and use of ERP for process integration. Technological solutions examined include ERP software, middleware applications, and the use of web services.

NOTE: Students who have received credit for DESC 389, 420 or 430 may not take this course for credit.

BTM 440 *Business Information Systems' Risks, Security and Audit* (3 credits)

Prerequisite: COMM 226 or 301. This course provides a comprehensive foundation of information systems' governance, auditing and security. The first part of the course covers information systems' risks, risk management, information technology (IT) controls, information systems' governance standards and the processes to audit information systems. The second part focuses on key points of managing information security including business continuity planning, incident management, backups, restoration procedures and security policies. The course uses a combination of theory and applied learning through intensive cases and the completion of a hands-on IT auditing and security management project with the help of a computer-assisted auditing tool.

BTM 480 *Project Management* (3 credits)

Prerequisite: COMM 225 or 226 or 301. This course covers the theory, tools, and techniques associated with the management of projects including the use of project management software. Cases from various business contexts are used to illustrate essential steps in setting up project plans, scheduling work, monitoring progress, and exercising control to achieve desired results. The course integrates the Project Management Body of Knowledge with the Project Management Institute's certification requirements.

NOTE: Students who have received credit for DESC 483 or for this topic under a DESC 490 number may not take this course for credit.

BTM 481 *Information Systems Analysis* (3 credits)

Prerequisite: BTM 382 previously or concurrently. This course covers the first phase of the systems development life cycle, which culminates in the systems proposal. Topics include the preliminary survey, analysis of existing systems and identification of deficiencies, the development of functional specifications, feasibility and cost/benefit analysis and development of a recommended course of action. In addition, various diagramming techniques are examined.

NOTE: Students who have received credit for DESC 481 may not take this course for credit.

BTM 490 *Special Topics in Business Technology Management* (3 credits)

Prerequisite: Permission of the Department. This course allows for more intensive examination of one or more topics in business technology management.

BTM 495 *Information Systems Design and Implementation* (3 credits)

Prerequisite: BTM 380 or DESC 381 or DESC 391; BTM 382 or DESC 382; BTM 481 or DESC 481. The main objective of this course is to expose students to the concepts, tools, and techniques they need to transform the information system requirements, resulting from the system analysis phase, into system design specifications, and to transform the information system design specifications, resulting from the system design phase, into a system prototype. The course introduces the concepts, techniques, and methodologies of the object-oriented approach to information system design. The unified modelling language is used to develop design specifications for the systems. Topics include design of use case models, classes and class diagrams, interaction diagrams, and state chart diagrams.

NOTE: Students who have received credit for DESC 495 may not take this course for credit.

BTM 496 *Information Technology Strategy, Management, and Sourcing* (3 credits)

Prerequisite: BTM 481 or DESC 481. This course addresses issues involved in administering the activities related to information technology (IT) resources in an organization. Topics covered include IT strategy, governance, sourcing, architecture, risk management, security policies, resource allocation, and change management. The course also covers areas related to the external environment of an organization such as the IT industry evolution, scanning, and its emerging solutions.

SUPPLY CHAIN OPERATIONS MANAGEMENT

SCOM 361 *Management Science Models for Operations Management* (3 credits)

Prerequisite: COMM 225. This course deals with application of management science models to operations management problems in allocation of scarce human, physical, and financial resources. Among the topics covered are transportation, assignment and trans-shipment problems, integer linear programming, network models, multi-criteria decision problems, and waiting line models. The emphasis is on modelling issues and interpretation of solution through the use of optimization software packages.

NOTE: Students who have received credit for DESC 361 may not take this course for credit.

SCOM 363 *Product Design and Business Process Re-Engineering* (3 credits)

Prerequisite: COMM 225 previously or concurrently. This course combines the product/service design issues and the continuous improvement efforts required throughout the life cycle of products and services. The topics covered in this context include essentials of creativity, organizational and operational issues in product/service design, mass customization, business process re-engineering, layout, and quality management. Cases and enterprise resource planning applications are studied to provide a unifying theme in terms of organizational change, supply chain re-engineering and integration aspects.

NOTE: Students who have received credit for DESC 363 may not take this course for credit.

SCOM 372 *Supply Chain Planning and Control* (3 credits)

Prerequisite: SCOM 361 or DESC 361. Production/service planning and control issues in managing supply chains are covered in this course. Mathematical modelling is emphasized in dealing with facility location, capacity planning, demand and supply

management, aggregate planning, scheduling, and inventory management decisions. Supplier evaluation/development practices and outsourcing are studied. Relevant enterprise resource planning modules with advanced planning and scheduling functionalities are introduced to illustrate the integration and coordination issues in supply chain planning and control.

NOTE: Students who have received credit for DESC 372 may not take this course for credit.

SCOM 374 Supply Chain Logistics (3 credits)

Prerequisite: COMM 225. This course covers the tools and techniques associated with movement of materials throughout the supply chain. The topics covered include fundamentals of customer relationship management, distribution channels, purchasing, warehousing, transportation management, third part logistics, reverse logistics and issues in global logistics. Relevant enterprise resource planning modules are introduced and logistics games are played to illustrate the integration and coordination issues in supply chain logistics.

NOTE: Students who have received credit for DESC 374 may not take this course for credit.

SCOM 490 Special Topics in Supply Chain Operations Management (3 credits)

Prerequisite: Permission of the Department. This course allows for more intensive examination of one or more topics in supply chain operations management.

SCOM 491 Supply Chain Risk Management (3 credits)

Prerequisite: COMM 225. This course covers fundamental quantitative and qualitative tools of risk management used to mitigate against supply chain risks in the context of supply and demand management strategies. Globalization initiatives in trade and money markets and increased worldwide security concerns have exposed supply chains to ever-increasing risks. Consequently, risk management along the supply chain has become an important function in order to decrease the level of vulnerability for the stakeholders. Topics include review of supply chain fundamentals and principles, risk identification and management, trade-offs in risk management, supply chain strategies for robustness, and scenario planning. Various case studies are used to highlight design and implementation issues.

NOTE: Students who have received credit for DESC 491 may not take this course for credit.

SCOM 492 Supply Chain Simulation (3 credits)

Prerequisite: BSTA 450; SCOM 372 or DESC 372 or SCOM 374 or DESC 374 previously or concurrently. This course focuses on simulating various supply chain scenarios using supply chain simulation package(s). Modelling issues in simulation are covered. Experimental design and analysis techniques are used in designing scenarios and analyzing the outcomes, which are also studied from a wider strategic business perspective.

NOTE: Students who have received credit for DESC 492 may not take this course for credit.

SCOM 498 Supply Chain Project (3 credits)

Prerequisite: SCOM 372 and at least six credits from SCOM 363, SCOM 374, BSTA 450. This course involves a project carried out in a real-life setting. Guest speakers from industry are invited to present supply chain issues in practice. Various tools and techniques of supply chain operations management are used in identifying and analyzing supply chain problems. Improvements and solutions are designed along with appropriate performance metrics.

NOTE: Students who have received credit for DESC 498 may not take this course for credit.

Location

Sir George Williams Campus
Hall Building, Room: H 1155
514-848-2424, ext. 3900

Programs

For departmental information please see §31.080.

- 24 Major in Economics**
 - 12 ECON 301, 302, 303, 304
 - 12 ECON elective credits chosen at the 400 level

 - 12 Minor in Economics**
 - 6 ECON 318, 319
 - 6 ECON elective credits chosen at the 300 level
-

Faculty

Associate Professor and Interim Chair of the Department
IMANTS PAEGLIS, PhD Boston University

Professors Emeriti

HARJEET BHABRA, PhD University of Missouri-Columbia
ABRAHAM BRODT, PhD New York University

Professors

ALAN HOCHSTEIN, PhD McGill University
ARVIND JAIN, PhD University of Michigan
LAWRENCE KRYZANOWSKI, PhD University of British Columbia
STYLIANOS PERRAKIS, PhD University of California, Berkeley; Provost's Distinction
DENIS SCHWEIZER, PhD European Business School
LATHA SHANKER, PhD University of Florida
LORNE SWITZER, PhD University of Pennsylvania
THOMAS WALKER, PhD Washington State University

Associate Professors

NILANJAN BASU, PhD Purdue University, CFA
SANDRA BETTON, PhD University of British Columbia, CFA
SERGEY ISAENKO, PhD University of Pennsylvania
GREGORY LYPNY, PhD University of Toronto
RAVI MATETI, PhD University of Connecticut
DAVID NEWTON, PhD University of British Columbia, CFA
JULIANE PROELSS, PhD European Business School
IAN RAKITA, PhD Concordia University, CFA
RAHUL RAVI, PhD University of Alberta
SAIF ULLAH, PhD University of Alberta

Assistant Professors

FREDERICK DAVIS, PhD Queen's University
YU-JOU PAI, PhD University of Cincinnati
YU SHAN, PhD City University of New York
PARIANEN VEEREN, PhD University of Alberta
CHONGYU WANG, PhD University of Connecticut
ERKAN YÖNDER, PhD Maastricht University

Senior Lecturers

REENA ATANASIADIS, MBA Concordia University
LORETTA HUNG, MScAdmin Concordia University

Lecturers

MICHEL DESLAURIERS, BComm Concordia University, CPA CA
AHMED EISSL, PhD Concordia University
NADA EL-HASSAN, MSc Concordia University
SERGEY GELMAN, PhD University of Munster
IGOR OLIVEIRA dos SANTOS, PhD Université de Montréal
TINGTING WU, PhD McGill University

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus
MB Building, Room: 012-205
514-848-2424, ext. 2789

Department Objectives

The Department of Finance is committed to excellence in both research and teaching and has earned a solid reputation as a productive and research oriented academic unit. The Department's research activities include theoretical, empirical, and applied contributions — all aimed at furthering knowledge in the field. Its teaching activities cover a wide range of topics including corporate finance, investment, international finance, personal finance, optimization techniques, portfolio management, options and futures and fluctuations in security prices, exchange rates, and interest rates.

Teaching effectiveness represents the cornerstone of the Department's teaching objectives. The Department's curriculum is a dynamic one which keeps up with current trends and innovations in the financial area. Department members have been recognized not only with Faculty Teaching Awards but also internationally by winning the 3M Teaching Fellowship Award.

The Department has developed orientation and training programs with major corporations and financial institutions for its students. Through this type of external involvement, classroom teaching is effectively blended with the complexities of the real world thereby providing students not only with a more meaningful education but also with job opportunities.

Programs

30 Honours in Finance

3 FINA 385

3 FINA 395

18 additional 400-level credits offered by the Department

6 FINA 495

Students are eligible to apply to the honours program if they have completed FINA 385, FINA 395, and six additional credits in Finance. Applicants must have achieved a minimum cumulative GPA of 3.3 and a minimum GPA of 3.5 in their Finance courses. Enrolment in this program is limited. The selection process may include recommendations from faculty members as well as interviews of applicants to this program. The deadline for applications is March 1.

Students must maintain a minimum cumulative GPA of 3.3, a minimum GPA of 3.5 in their Finance courses and achieve a minimum grade of B+ in FINA 495 to remain in the Honours in Finance program. Students who are withdrawn from the honours program may proceed in the Major in Finance.

24 Major in Finance

3 FINA 385

3 FINA 395

18 additional 400-level credits offered by the Department

12 Minor in Finance

3 FINA 385

3 FINA 395

6 additional 400-level credits offered by the Department

Finance Co-operative Program

Director

LORETTA HUNG, Senior Lecturer

514-848-2424, ext. 5114

The Finance co-operative program is offered to students who are enrolled in the BComm program and are majoring in Finance. The academic content of the co-op program is identical to that of the regular program, but three work terms are interspersed with six study terms.

Students are supervised individually and must meet the requirements specified by both the John Molson School of Business and the Institute for Co-operative Education in order to continue their studies in the co-op format.

Liaison between the student, the employers, and the Institute for Co-operative Education is provided by the Finance co-op academic director and the co-op committee.

Please refer to §24 of this Calendar for a full description of the co-operative format of the program.

Courses

FINA 200 Personal Finance (3 credits)

This course is offered online. It is designed to help individuals better manage their current and future financial affairs. The course introduces the terminology and basic concepts underlying personal financial management. It helps students set goals and develop skills to conduct basic research when making personal financial decisions. The topics covered include financial planning, money management, personal income taxes, costs of consumer credit, concepts of time value of money, investing in stocks, bonds and mutual funds, mortgages, and retirement planning.

NOTE: Finance Majors and Minors may not take this course for credit towards their major or minor.

NOTE: Students who have received credit for this topic under a COMM 499 number may not take this course for credit.

FINA 210 *Introduction to Real Estate* (3 credits)

This course introduces the concepts, principles, analytical methods and tools used for investment, development, and evaluation of real estate assets. The course focuses on issues such as market and feasibility analysis, investment property analysis, forms of ownership, valuation by alternate approaches, mortgages, borrower-lender relationships, investing in income property, commercial property financing, real estate investment trusts (REITs), and legal and property rights among co-owners.

NOTE: Finance Majors and Minors may not take this course for credit towards their major or minor.

NOTE: Students who have received credit for FINA 450 or for this topic under a COMM 499 number may not take this course for credit.

FINA 230 *Introduction to Financial Management* (3 credits)

This course provides an overview of financial management and introduces the basic terms as well as the role finance plays in the firm and in markets. Specifically, this course covers the following topics: the importance of a working knowledge of finance to non-business students; the role of the financial manager; the differences between accounting income and cash flow and between book value and market value; the role of interest rates in the Canadian economy; the interpretation of financial ratios; the concept of time value of money; and making financial decisions.

NOTE: JMSB students may not take this course for credit.

NOTE: This course does not count towards the requirements for the Minor in Business Studies.

NOTE: Students who have received credit for this topic under a COMM 299 number may not take this course for credit.

FINA 310 *Real Estate Development and Entrepreneurship* (3 credits)

Prerequisite: COMM 308; FINA 210 or 450. This course focuses on fundamental concepts and analytic tools applied in real estate development. It incorporates the interdisciplinary character and the entrepreneurial nature of the development process. It covers different interactive stages and discusses the roles and motivations of various stakeholders involved in this decision-making process. In addition to the analysis of financial returns, this course may include discussion on the economic, social and environmental costs and benefits. Pedagogical methods include lectures, guest speakers, case studies, group project and field trip/property tour.

FINA 320 *Real Estate Investment* (3 credits)

Prerequisite: COMM 308; FINA 210. This course focuses on analytical tools used for making commercial real estate investment decisions. It introduces students to methods of estimating and analyzing basic measures of performance at the property level. Students learn how to identify financial risks associated with real estate investment and prepare discount cash flow analyses for the projected holding periods. Topics covered include the fundamentals of publicly traded real estate, real estate investment trusts (REITs) and analysis at the portfolio level. Pedagogical methods include lectures, class discussion on contemporary issues in the real estate market, guest speakers, case studies, group project and evaluation of potential commercial real estate for investment purposes.

NOTE: Students who have received credit for FINA 450 may not take this course for credit.

FINA 370 *(also listed as IBUS 370)****International Financial Management*** (3 credits)

Prerequisite: COMM 220, 308. This course is designed for students to acquire and demonstrate knowledge of the fundamental principles and issues in international financial management. It covers such topics as foreign exchange markets, exchange rate behaviour, structure and meaning of the international balance of payments, the functioning of fixed and floating exchange rate systems, short- and long-term investment and borrowing decisions, euro-currency markets, foreign exchange risk management, and capital budgeting decisions for overseas investment. In sum, the topics are covered from the perspective of an individual who wishes to know how the international financial environment will affect the firm.

NOTE: Finance Majors and Minors may not take this course for credit toward their major or minor.

NOTE: Students who have received credit for IBUS 370 or FINA 470 may not take this course for credit.

FINA 382 *(also listed as IBUS 382)****Management of International Financial Institutions*** (3 credits)

Prerequisite: COMM 308; MARK 462 or IBUS 462. This course provides students with an understanding of challenges and opportunities that banks and other financial institutions face in their global operations. It covers operations of financial firms in mature as well as emerging markets. Topics include an assessment of opportunities in foreign markets and difficulties that financial institutions face when dealing with unfamiliar economic and political environments; unique operations and challenges in international markets such as microfinance, international loans, project financing and assessment of political or sovereign risks, importance of global regulation and governance, and ethical issues associated with international operations within the financial services industry.

NOTE: Finance majors and minors may not take this course for credit toward their major or minor.

NOTE: Students who have received credit for FINA 482 or IBUS 382, or for this topic under a FINA 455 or IBUS 471 number, may not take this course for credit.

FINA 385 *Theory of Finance I* (3 credits)

Prerequisite: COMM 220, 308. This course is the first of two that provide a theoretical foundation upon which subsequent 400-level courses will be built. The course examines the allocation of capital in financial markets and the determination of the relative prices of financial assets. Topics covered include utility theory, arbitrage pricing theory, and asset pricing models such as the Capital Asset Pricing Model and the option pricing model. Applications explored include arbitrage, the design of markets and the appropriate responses of individuals and firms to changes in market conditions as well as to market imperfections.

NOTE: Students who have received credit for FINA 380 may not take this course for credit.

FINA 395 *Theory of Finance II* (3 credits)

Prerequisite: COMM 220, 308; FINA 385 previously or concurrently. This course focuses on the financial theory of the firm and examines the Modigliani-Miller propositions, agency theory, and asymmetric information theory. Topics covered include capital structure and the cost of capital, investment and financing decisions, real options, valuation and issuance of new securities, mergers and acquisitions, and leveraged buyout decisions.

NOTE: Students who have received credit for FINA 390 or 400 may not take this course for credit.

FINA 402 *Short-Term Financial Management* (3 credits)

Prerequisite: FINA 380 or 385; FINA 390 or 395. This course is concerned with the key aspects of short-term financial management. It begins with a brief coverage of the institutional environment facing the financial manager in Canada. A detailed coverage of sources for short-term borrowing and investments is presented. The structure of the Canadian financial system along with a description of the various methods of effecting payments as well as the clearing and settlement system are covered. Topics in overall liquidity management are briefly reviewed from a theoretical perspective. Traditional subjects in cash management such as collections, disbursement and control, forecasting, company bank relationship, short-term investment, and borrowing are examined next. Such new developments as electronic data interchange and EFT/POS are also examined. The course also provides a coverage of trade credit both from a theoretical positive standpoint and a normative viewpoint.

FINA 405 *Cases in Finance* (3 credits)

Prerequisite: FINA 380 or 385; FINA 390 or 395. This course uses case discussions to focus on the application of the principles of finance learned in FINA 385 and 395 in real-world contexts. Cases cover topics in corporate finance, investments, and financial markets and institutions.

NOTE: Students who have received credit for FINA 490 may not take this course for credit.

FINA 408 *Building and Testing Trading Systems Using Technical Analysis* (3 credits)

Prerequisite: FINA 385, 395. This course provides a basic level of understanding of various technical analysis methodologies that are used by investment professionals and the investing public. The course examines market microstructure and order entry mechanics, high-frequency trading, behavioural finance and the efficient market hypothesis. The main topics include analysis of price charts to forecast future price trends and patterns, development and testing of a trading system, Dow theory, moving averages, momentum, sentiment, relative strength and intermarket analysis. This course is an excellent preparation for several investment industry designations. Pedagogical methods include lectures, a presentation by an industry expert, and a group project to build and test a trading system using simulation and investment software in the John Dobson – Formula Growth Investment Room.

NOTE: Students who have received credit for this topic under a FINA 455 number may not take this course for credit.

FINA 409 *Applied Investment Analysis* (3 credits)

Prerequisite: Permission of the Department. This course focuses on evaluating stocks using modern valuation methods. The main topics include understanding the different investment styles, reading and interpreting financial statements from an investor's perspective, industry analysis and stock analysis. Pedagogical methods include lectures, discussion of books, presentations by industry experts, use of the Formula Growth Investment Room and evaluation of potential companies for investment purposes.

NOTE: Students who have received credit for FINA 410 or for this topic under a FINA 455 number may not take this course for credit.

FINA 410 *Investment Analysis* (3 credits)

Prerequisite: FINA 385, 395. This course focuses on investment valuation, particularly equity valuation, from the viewpoints of both the individual investor and the institutional investor. Students learn how to analyze industries, sectors and individual companies. Topics include a range of valuation models such as the dividend discount model, the comparable assets model, and the free cash flow model, to determine the intrinsic value of a stock. Students learn how to use investment tools such as Bloomberg for investment analysis. Students are required to prepare an industry analysis and stock recommendation using live data at the end of the course.

NOTE: Students who have received credit for FINA 409 may not take this course for credit.

FINA 411 *Portfolio Management* (3 credits)

Prerequisite: FINA 385, 395. This course focuses on modern investment theory and its application to portfolio management for individuals and institutions, such as mutual funds, hedge funds, pension plans and endowments. Topics include: a) construction of optimal portfolios, b) theory and tests of the classic capital asset pricing models, c) arbitrage pricing theory and multifactor models, d) criteria for evaluation of investment performance, and e) some of the latest strategies in active and passive portfolio management. In addition to the textbook, students read journal articles, discuss cases and learn investment software in the John Dobson – Formula Growth Investment Room.

FINA 412 *Options and Futures* (3 credits)

Prerequisite: FINA 380 or 385; FINA 390 or 395. This course is a comprehensive analysis of the options and futures markets in North America. The student is introduced to the different markets for these instruments and their institutional details. The different types of options and futures currently trading are examined. The principles of valuation of futures and options, their use in risk management through hedging techniques and their use in speculative strategies are studied. Emphasis is placed on the analysis of financial options and futures.

FINA 413 Advanced Topics in Derivative Markets (3 credits)

Prerequisite: FINA 412. This course focuses on advanced topics in the area of derivatives. Topics covered include the valuation of derivatives using numerical procedures and martingales, modelling the term structure of interest rates, valuation of interest rate swaps, interest rate options, caps, floors, swaptions and exotic options, and application of derivatives in risk management such as value at risk models, estimation of volatility and credit risk derivatives.

FINA 415 Mergers and Acquisitions (3 credits)

Prerequisite: FINA 380 or 385; FINA 390 or 395. This course examines the financial aspects of mergers and acquisitions. Basic financial theory and empirical evidence related to corporate control activity is discussed. Some of the topics covered include target identification and valuation, bidding strategies, defensive strategies, financing strategies and growth by acquisition strategies. In addition, going private transactions such as leverage buyouts and management buyouts are discussed.

FINA 416 Behavioural Finance (3 credits)

Prerequisite: FINA 385, 395. This course examines how the behaviour of managers, boards of directors, or financial analysts deviates from models of "rational" behaviour in some situations, and how these deviations affect shareholder wealth. The course explores how behavioural characteristics like mental accounting, overconfidence, herding, framing and loss aversion cause the assumptions of rational economic behaviour to break down at both the individual and systemic levels.

NOTE: Students who have received credit for this topic under a FINA 455 number may not take this course for credit.

FINA 420 Real Estate Finance (3 credits)

Prerequisite: COMM 308; FINA 210. The course focuses on concepts, principles and analytical methods of real estate finance. It begins with a comprehensive investigation of mortgages from the perspective of both borrowers and lenders. The basics are then applied to analyze mortgage risk, commercial mortgage-backed securities (CMBS), market and mortgage securitization, as well as investment decisions on acquisition and financing of commercial real estate assets. Pedagogical methods include lectures, class discussions on contemporary issues, guest speakers, case studies, group project and risk analysis of mortgage-backed securities.

NOTE: Students who have received credit for FINA 450 may not take this course for credit.

FINA 455 Seminar in Finance (3 credits)

This course is intended primarily for Finance Majors and Minors. It provides an opportunity for more intensive study in one or more specific topics of finance. The topic varies according to the special interests of the professor and the students. Enrolment is restricted and is subject to departmental approval.

NOTE: Specific topics for this course and prerequisites relevant in each case are stated in the Undergraduate Class Schedule.

FINA 465 Trading in Financial Securities (3 credits)

Prerequisite: FINA 412; permission of the Department. This course focuses on developing practical skills in trading financial securities. Topics covered include general trading practices, fundamental and technical analysis, term structure of interest rates, arbitrage opportunities, and trading strategies using options, futures and options on futures contracts. Speakers from the finance industry are also invited to share their experiences with the students.

NOTE: Students who have received credit for this topic under a FINA 455 number may not take this course for credit.

FINA 470 International Finance (3 credits)

Prerequisite: FINA 385, 395. This course introduces students to the essentials of international financial management. After a brief introduction to the international monetary system, we study the organization of the foreign currency and international financial markets. The course then discusses the determinants of exchange rates, followed by a discussion of the risks that businesses operating in international markets face due to changing exchange rates and financial turmoil in international financial markets. The subsequent sections of the course are devoted to understanding techniques and strategies for managing different types of exchange risks after various foreign currency derivatives — forward, futures, options and swaps — have been studied.

NOTE: This course is offered for Finance Majors and Minors only.

NOTE: Students who have received credit for FINA 370 or IBUS 370 may not take this course for credit.

FINA 471 Multinational Financial Management (3 credits)

Prerequisite: FINA 470. This course addresses advanced issues that corporations or investors face when they expand their operations in the international markets. Corporations face challenges in the areas of international capital budgeting, determining their cost of capital and their capital structure, assessment of political risk, international working capital management, financing international trade and international corporate governance. This course discusses how these decisions become more complex in an international environment due to changing exchange rates and multiplicity of economic and political environments. The course also addresses the difficulties of choosing appropriate pricing models in an international context.

FINA 481 Management of Financial Institutions (3 credits)

Prerequisite: FINA 385, 395. This course provides students with an integrating framework for examining various types of financial institutions and the means of managing their operations. Topics include uniqueness of financial institutions; application of portfolio and corporate finance theories to the management of assets, liabilities, capital structure and off-balance sheet operations; interest rate and liquidity risk exposure; loan portfolio management, loan pricing and credit rationing; capital adequacy and regulatory environment. The strategic repercussions for such institutions, given the rapidly changing financial and regulatory environments, are also reviewed through the analysis of cases illustrating current issues.

NOTE: Students who have received credit for FINA 480 may not take this course for credit.

FINA 482 *International Banking: Operations, Policy and Strategy* (3 credits)

Prerequisite: FINA 481 previously or concurrently. This course provides students with an integrating framework to understand the risks, challenges and opportunities that banks face in their global operations. The course covers both commercial and investment banking activities in mature as well as emerging markets. The course begins with an examination of opportunities that foreign markets offer as well as difficulties that banks face when dealing with unfamiliar economic and political environments abroad. This is followed by a discussion of banking operations in international and foreign markets. Topics for this discussion may include microfinance, international loans, project financing and an assessment of political or sovereign risks. The impact of foreign operations on mitigation or enhancement of various risks associated with home country operations is examined. The course also examines the importance of global regulation as well as governance and ethical issues associated with international banking.

NOTE: This course is offered for Finance majors and minors only.

NOTE: Students who have received credit for FINA 382 or IBUS 382, or for this topic under a FINA 455 or IBUS 471 number, may not take this course for credit.

FINA 495 *Honours Seminar in Finance* (6 credits)

Prerequisite: Enrolment in the honours program. This seminar is offered to honours students in Finance over a period of two terms. In the first term, the seminar covers methodology and recent advances in research in topics covered in the Finance curriculum. In addition, students begin working on a thesis/project to be conducted under the supervision of a faculty member. In the second term, students complete their thesis/project and are required to submit a written report to be presented at the seminar at the end of the term.

INTERNATIONAL BUSINESS

Section 61.80

Professor and Director of the International Business Program
MEHDI FARASHAHI, PhD *Concordia University*

Location

Sir George Williams Campus
MB Building, Room: 004-201
514-848-2424, ext. 2721

Program Objectives

The globalization of business is increasing the demand for managers who are comfortable working in a variety of diverse and multicultural environments. The Major in International Business is an attractive and exciting preparation for such a career. International business issues are examined from a strategic perspective and students are also exposed to several disciplines including international management, marketing, and finance, as well as international aspects of politics, economics, and sociology.

Students are strongly encouraged to enrol in language courses as elective courses. Adding a minor in a more specific discipline of interest is also suggested to further complement this program.

Participation in the International Student Exchange Program is also highly recommended. This experience will add a more relevant and unique perspective to the overall scope of this exciting degree.

Programs

- | | |
|----|--|
| 24 | Major in International Business |
| 9 | IBUS 462, 466, 492 |
| 15 | additional credits chosen from courses listed in either Group A or Group B, with a maximum of six credits from Group B |
| | <i>Group A</i> |
| | IBUS 370, 382, 465, 471, 493; MANA 374 |
| | <i>Group B</i> |
| | ECON 319; POLI 305, 311, 315, 394 |
| 12 | Minor in International Business |
| 9 | IBUS 462, 466, 492 |
| 3 | additional credits chosen from IBUS 370, 382, 465, 471, 493; MANA 374 |
-

International Business Co-operative Program

Director

MEHDI FARASHAHI, Professor
514-848-2424, ext. 2923

The International Business co-operative program is offered to students who are enrolled in the BComm program and are majoring in International Business.

The academic content of the co-op program is identical to that of the regular program, but three work terms are interspersed with six study terms.

Students are supervised individually and must meet the requirements specified by the John Molson School of Business and the Institute for Co-operative Education in order to continue their studies in the co-op format.

Liaison between the student, the employers, and the Institute for Co-operative Education is provided by the International Business co-op academic director and the co-op committee.

Please refer to §24 of this Calendar for a full description of the co-operative format of the program.

Courses

IBUS 370 (*also listed as FINA 370*)
International Financial Management (3 credits)

Prerequisite: COMM 308. This course is designed for students to acquire and demonstrate knowledge of the fundamental principles and issues in international financial management. It covers such topics as foreign exchange markets, exchange rate behaviour, structure and meaning of the international balance of payments, the functioning of fixed and floating exchange rate systems, short- and long-term investment and borrowing decisions, euro-currency markets, foreign exchange risk management,

and capital budgeting decisions for overseas investment. In sum, the topics are covered from the perspective of an individual who wishes to know how the international financial environment will affect the firm.

NOTE: Students who have received credit for FINA 370 may not take this course for credit.

IBUS 382 (also listed as FINA 382)

Management of International Financial Institutions (3 credits)

Prerequisite: COMM 308, MARK 462 or IBUS 462. This course provides students with an understanding of challenges and opportunities that banks and other financial institutions face in their global operations. It covers operations of financial firms in mature as well as emerging markets. Topics include an assessment of opportunities in foreign markets and difficulties that financial institutions face when dealing with unfamiliar economic and political environments; unique operations and challenges in international markets such as microfinance, international loans, project financing and assessment of political or sovereign risks, importance of global regulation and governance and ethical issues associated with international operations within the financial services industry.

NOTE: Finance majors or minors may not take this course for credit toward their major or minor.

NOTE: Students who have received credit for FINA 382 or 482, or for this topic under a FINA 455 or IBUS 471 number, may not take this course for credit.

IBUS 462 (also listed as MARK 462)

Environment of World Business (3 credits)

Prerequisite: COMM 210, 215; COMM 223 or 224. This is a foundation course in international business; the objective is to present information which exposes the student to cultural, social, political, economic, legal, and financial environments in which Canadian business executives manage their operations abroad. All students are encouraged to develop their own philosophy towards international business activities by developing research and analytical skills in analyzing current and long-term problems perceived in different economic systems and environments. Specific topics include empirical dimensions of world economy, economic development, international trade and investment patterns, regional economic co-operation, area studies, Canadian nationalism, and foreign investment in Canada.

NOTE: Students who have received credit for MARK 462 may not take this course for credit.

IBUS 465 (also listed as MARK 465)

International Marketing Management (3 credits)

Prerequisite: COMM 223 or 224; MARK 462 or IBUS 462. This course studies the management approach to international marketing, with emphasis on key variables that are controllable by the international marketing manager. Attention is focused on market measurement, product policy, channels, pricing, and promotion, with special emphasis on the development and control of multinational marketing strategies and programs. Students execute a project directed to a selected part of the world.

NOTE: Students who have received credit for MARK 465 may not take this course for credit.

IBUS 466 (also listed as MANA 466)

Management of Multinational Corporations (3 credits)

Prerequisite: COMM 222; MARK 462 or IBUS 462. This course introduces the challenges of managing sustainable multinational operations. It addresses themes of globalization and issues in managing global competition and local responsiveness in multiple institutional and cultural environments. The course gives students an appreciation of international competitive and collaborative strategies and the corresponding coordination and control mechanism of multinational corporations. It also highlights the issues of global governance and social responsibility as well as the differences and similarities of management techniques across national borders. Finally, the course examines the future of multinational corporations in the context of global financial, social, and environmental crises.

NOTE: Students who have received credit for MANA 466 may not take this course for credit.

IBUS 471 Topics in International Business (3 credits)

Prerequisite: MARK 462 or IBUS 462. This course is intended primarily to provide an opportunity for more intensive study in one or more specific topics of international business. The topic will vary according to the special interests of the professor and the students.

NOTE: Specific topics for this course and prerequisites relevant in each case are stated in the Undergraduate Class Schedule.

IBUS 492 (also listed as MARK 492)

Cross-Cultural Communications and Management (3 credits)

Prerequisite: MARK 462 or IBUS 462. This course deals with the multicultural dimensions of international business operations. The objective is to develop Canadian managerial skills for effective performance in an international setting. Topics to be covered include international negotiations, management of multicultural personnel, cross-cultural consumer behaviour profile, cross-cultural communication, and other cultural aspects of marketing strategy.

NOTE: Students who have received credit for MARK 492 may not take this course for credit.

IBUS 493 (also listed as MANA 493)

International Business Law (3 credits)

Prerequisite: COMM 315; IBUS 466 or MANA 466. This course familiarizes business students with the principles of international private and public law that they may encounter in today's fast-paced world of multinational corporations and global business transactions. Topics include international trade organizations and treaties; principles relating to international sales contract performance and dispute resolution alternatives; international payment using bills of exchange and letters of credit; labour in a global economy including child labour and human trafficking issues; international environmental law, waste disposal and pollution issues; as well as the protection of intellectual property rights.

NOTE: Students who have received credit for MANA 493 may not take this course for credit.

Faculty

Associate Professor and Chair of the Department
JISUN YU, PhD University of Minnesota

Distinguished Professor Emeritus
GARY JOHNS, PhD Wayne State University

Professors

STEVEN H. APPELBAUM, PhD University of Ottawa; Provost's Distinction
KAMAL ARGHEYD, DBA Harvard University
KATHLEEN BOIES, PhD University of Western Ontario
STÉPHANE BRUTUS, PhD Bowling Green State University
MICHAEL CARNEY, PhD University of Bradford
LINDA DYER, PhD Carnegie Mellon University
MEHDI FARASHAHI, PhD Concordia University
RONALD FERGUSON, PhD University of Michigan
MUHAMMAD JAMAL, PhD University of British Columbia
RICK MOLZ, PhD University of Massachusetts

Associate Professors

ALEX BITEKTINE, PhD McGill University
INGRID CHADWICK, PhD Queen's University
YU-PING CHEN, PhD University of Wisconsin-Milwaukee
ALEXANDRA DAWSON, PhD Bocconi University
ASMA FATTOUM-GUEDRI, PhD EMLYON Business School
TRACY HECHT, PhD University of Western Ontario
YOUNG-CHUL JEONG, PhD University of Illinois at Urbana-Champaign
ALEX LEFTER, PhD University of Minnesota
ALEXANDRA PANACCIO, PhD HEC Montréal
RAYMOND PAQUIN, DBA Boston University School of Management
RAJSHREE PRAKASH, PhD University of Alberta
SETH SPAIN, PhD University of Illinois at Urbana-Champaign

Assistant Professors

JOEL BOTHELLO, PhD ESSEC
LUC FOLEU, DBA Université du Québec à Trois-Rivières
YASAMAN GORJI, PhD Concordia University
STEVEN LIANG, PhD Concordia University
SHANNON LLOYD, PhD Carnegie Mellon University
ALEXANDER YURIEV, PhD Université Laval

Senior Lecturers

RONALD J. ABRAIRA, MBA Concordia University
FRANK CROOKS, LLB LLM University of Ottawa, MA Concordia University
TIM FIELD, MBA Concordia University
BARBARA SHAPIRO, MSS Bryn Mawr College

Lecturers

RAGHID AL HAJJ, MBA Lebanese American University
BENITO ALOE, LLM Université de Montréal
NORA BARONIAN, MBA Concordia University
BRINDA BISSOONAUTH, MSc Concordia University
MAYA SHARMA, MSc Concordia University

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus
MB Building, Room: 013-115
514-848-2424, ext. 2924

Department Objectives

The 21st century requires citizens and organizational leaders who can motivate and work with people, manage the complexities of organizations and their environments, and create wealth in a socially and ecologically sustainable manner. To prepare students for the challenges set by these diverse forces, the Management Department provides a curriculum that reflects the multidisciplinary nature of management and the interdependence among people, organizations, and society. Specific areas of study include organizational behaviour, business strategy, human resource management, entrepreneurship, and business law. The Department employs an applied pedagogy, focusing on experiential learning, case analysis, and oral and written reflections.

Programs

- 30 Honours in Management
 - 18 MANA 341, 343, 362, 390, 420, 490
 - 6 Credits chosen from MANA 369, 451, 478, 481
 - 6 Additional 300- or 400-level credits offered by the Department
 - Students are eligible for admission to the honours program if they have achieved a minimum cumulative GPA of 3.30. Enrolment in this program is limited. The selection process may include recommendations from faculty members as well as interviews of applicants to this program. The deadline for applications is May 1 for admission to the following fall term.*
 - Students must maintain minimum cumulative and assessment GPAs of 3.30 to remain in the honours program in accordance with the Faculty regulations. The minimum acceptable grade in any course is normally "C." Students who are withdrawn from the honours program may proceed in the Major in Management.*
 - 24 Major in Management
 - 6 MANA 341, 420
 - 18 Additional 300- or 400-level credits offered by the Department; IBUS 492
 - 12 Minor in Management
 - 6 MANA 341, 420
 - 6 Additional 300- or 400-level credits offered by the Department
 - 30 Major in Human Resource Management
 - 30 MANA 341, 362, 366, 420, 443, 444, 445, 446, 463, 479
 - 12 Minor in Human Resource Management
 - 3 MANA 362
 - 9 Credits chosen from MANA 443, 444, 446, 463, 498
 - 12 Minor in Entrepreneurship
 - 12 Credits chosen from MANA 447, 451, 478, 480, 481, 482
-

Management Co-operative Program

Director
BARBARA SHAPIRO, *Senior Lecturer*
514-848-2424, ext. 2780

The Management co-operative program is offered to students who are enrolled in the BComm program and are majoring in Human Resource Management.

The academic content of the co-op program is identical to that of the regular program, but three work terms are interspersed with six study terms.

Students are supervised individually and must meet the requirements specified by both the John Molson School of Business and the Institute for Co-operative Education in order to continue their studies in the co-op format.

Liaison between the student, the employers, and the Institute for Co-operative Education is provided by the Management co-op academic director and the co-op committee.

Please refer to §24 of this Calendar for a full description of the co-operative format of the program.

Courses

MANA 201 *Introduction to Business and Management* (3 credits)

This course introduces students to the basic principles of management within a contemporary business context. The managerial process is explored in relation to issues such as organizational structure and innovation in large and small organizations, strategy formulation and planning, operations and marketing management. Students are exposed to in-depth industry and market analysis methods and do research pertaining to their chosen industry. The course includes basic readings in management and contemporary text from business publications. Particular focus is placed on entrepreneurship and its impact and value on economic and social systems.

NOTE: JMSB students may not take this course for credit.

NOTE: Students who have received credit for ADMI 201, ADMI 202, MANA 266, or COMM 210 may not take this course for credit.

NOTE: Students entering the BComm or BAdmin program as of September 2013 may not take this course for credit.

MANA 202 *Human Behaviour in Organizations* (3 credits)

This course seeks to give students an understanding of behaviour in the workplace, the factors that influence behaviour, and the relationships among these factors. Conceptual frameworks, case discussions, and self-assessment tools complement the course material. Topics include personality and learning, motivation, group dynamics, teamwork and diversity, influence and leadership, and stress management.

NOTE: JMSB students may not take this course for credit.

NOTE: Students who have received credit for MANA 213 or COMM 222 may not take this course for credit.

NOTE: Students entering the BComm or BAdmin program as of September 2013 may not take this course for credit.

MANA 298 *Business Law* (3 credits)

This course allows students to develop a degree of familiarity with the legal environment in which business organizations operate. Students are introduced to the topics of employment law, the Quebec Charter of Human Rights, representation and power of attorney, corporate law, contract law, civil liability and product safety, as well as other important legal aspects of business.

NOTE: JMSB students may not take this course for credit.

NOTE: Students who have received credit for MANA 211 may not take this course for credit.

MANA 300 *Entrepreneurship: Launching Your Business* (3 credits)

Prerequisite: ADMI 201 or ADMI 202 or MANA 201 or permission of the Department; completion of 60 credits in a non-business program. This final-year course offers students the opportunity to learn how to capitalize on their domain-specific knowledge and recognize opportunities for self-employment or new venture creation. The course presumes that students have already developed an interest in entrepreneurial careers within their respective fields of study. The first phase of the course reviews fundamental concepts and issues in entrepreneurship and related business fields. The second phase introduces students to the elements of business planning in the context of entrepreneurial projects, followed by the third phase where students formulate their own business plans.

NOTE: JMSB students may not take this course for credit.

NOTE: This course does not count toward the requirements of the Minor in Business Studies.

MANA 341 *Organization Theory and Design* (3 credits)

Prerequisite: COMM 222. This course provides the student with a basis for understanding and critically examining complex organizations in contemporary society. Interrelationships among the social, cultural, and formal properties of organizations are examined and linked to contextual forces in the external environment. Emphasis is placed on the analysis of organizational systems for the purpose of improving integration, adaptation, survival, and effectiveness of organizations.

MANA 343 *Communication and Negotiation* (3 credits)

Prerequisite: COMM 222 previously or concurrently; or MANA 201 and 202. This course focuses on the communication skills that lead to successful interaction with others in business settings. Topics include designing and delivering effective written and oral messages, communicating with internal and external stakeholders, negotiating, and resolving conflict. Pedagogical methods include in-class exercises, case studies, presentations, and report writing.

MANA 362 *Human Resource Management* (3 credits)

Prerequisite: COMM 222; or MANA 201 and 202. This course provides a background in the theory and practice of human resource management. It covers the core areas of human resource management, mainly human resource planning, recruitment, staffing, performance appraisal, career planning, labour relations, compensation, and international human resource management.

MANA 366 *Industrial Relations and Collective Bargaining* (3 credits)

Prerequisite: COMM 222. This course provides a broad overview of the employee-employer relationship. It describes the interplay between the various actors of industrial relations: unions, employees, employers, government, and legislators. The course focuses on major labour-management issues and the day-to-day problems of negotiating and administering collective agreements.

MANA 369 *Business and Sustainability* (3 credits)

Prerequisite: COMM 223 or 224 or MARK 201. This course explores the role of business in developing a sustainable global society. Students explore current environmental and societal concerns and the role of business in influencing them. Students learn how the relationships between business and various stakeholders, including communities, governments, and the natural environment, can create opportunities for generating economic, environmental, and social value.

MANA 374 *Sustainable Management* (3 credits)

This course focuses on the emerging business environment, and how organizations implement ecologically, socially, and economically sustainable management. Sustainable strategies are explored within the context of global economic development, to develop organizational vision, products and processes for achieving long-term sustainable prosperity.

NOTE: Students who have received credit for this course under a MANA 299 or COMM 299 number may not take this course for credit.

MANA 390 *Honours Seminar in Management I* (3 credits)

Prerequisite: Enrolment in the Honours in Management program; completion of at least two 300-level MANA courses; COMM 315; MANA 341 and MANA 420 previously or concurrently. This course provides students with an opportunity to carry out an in-depth investigation of a selected business problem in small business management, communication within and beyond the workplace, or related fields. In this applied learning experience, students select a topic related to their area of interest, design and complete an individual research project in collaboration with faculty supervisors, or managers in for-profit and/or non-profit organizations.

Students give a poster presentation at the end of the term.

MANA 420 *Management Research for Decision Making* (3 credits)

Prerequisite: COMM 222, 215. This course explains the relevance of management research for business and administrative decision making. Topics include conducting employee surveys, observational and interview methods, program evaluation, data analysis and interpretation, and the ethics of gathering information from human participants. Students evaluate the validity of reports of management research, learn to exercise caution in accepting research conclusions, and get hands-on experience with basic research techniques.

MANA 443 *Compensation and Benefits Management* (3 credits)

Prerequisite: MANA 362. This course provides a general knowledge of the concepts, design, methodology, management and administration of compensation and benefit programs within organizations. Major topics include job evaluation, knowledge-based pay, pay for performance, alternative reward systems, government and employer-provided benefit programs. The primary emphasis is on the design of appropriate policies and programs and how these can help support organizational objectives and strategies.

MANA 444 *Training and Development* (3 credits)

Prerequisite: MANA 362. Topics covered in this course include how training needs are assessed, how effective training programs are designed, how to ensure that learning achieved in training is transferred to the work, and how training programs are evaluated. Emerging issues such as career management and mentoring programs are discussed.

MANA 445 *Health and Safety Management* (3 credits)

Prerequisite: MANA 362. This course examines the critical aspects of health and safety administration within organizations. It provides a brief overview of the relevant legislation and focuses upon prevention, causes, detection, intervention, reintegration, epidemiological and clinical investigation, and health development. Physical and psychological aspects of health and safety are examined.

MANA 446 *Workplace Planning and Staffing* (3 credits)

Prerequisite: MANA 362. This course is designed to introduce the conceptual and analytical tools needed to staff organizations effectively with qualified employees. Topics include planning, job analysis, legal issues, recruitment, selection methods, and techniques for developing valid and reliable selection procedures. Both the strategic needs of the organization and the legal environment of contemporary organizations in Quebec and Canada are addressed.

MANA 447 *Leadership and Motivation* (3 credits)

Prerequisite: COMM 222. This course is designed to familiarize students with current research and theory on motivation and leadership, and their synergy and application in a work context. Implications for the design of reward systems and leader development are addressed. Class activities include student presentations, small group discussions, exercises, cases, and simulations.

MANA 451 *Managing a Small Business* (3 credits)

Prerequisite: COMM 320 or 410. This course emphasizes the operational aspects of management that are uniquely important to a small enterprise. It provides opportunity to practise operational decision-making under conditions characteristic for small- and medium-sized firms. Themes include strategy and planning, human resource management, marketing, operations and technology, managing the small family business, legal issues and international activities.

MANA 461 *Implementing Competitive Strategies* (3 credits)

Prerequisite: COMM 401. Bridging the gap between the classroom and the practical day-to-day running of a contemporary business enterprise, this course explores the process by which strategy is linked to managerial action. Corporate strategy states the general direction that the organization will follow. Functional strategy is a formulation of how the business unit intends to compete in its given business sector. The course examines how functional strategies can be key instruments for the realization of business and corporate strategies.

MANA 463 *Strategic Human Resource Management* (3 credits)

Prerequisite: MANA 341, 362, and any two of the following: MANA 443, 444, 446. This course is a final-year integrative seminar for Human Resource Management Majors. It focuses on the philosophies underlying current human resource management principles

and policies and the processes of their implementation. The course utilizes cases to integrate human resource management areas such as recruitment, selection, training, performance appraisal, compensation, and benefits administration.

MANA 466 (also listed as IBUS 466)

Management of Multinational Corporations (3 credits)

Prerequisite: COMM 222; IBUS 462 or MARK 462. This course introduces the challenges of managing sustainable multinational operations. It addresses themes of globalization and issues in managing global competition and local responsiveness in multiple institutional and cultural environments. The course gives students an appreciation of international competitive and collaborative strategies and the corresponding coordination and control mechanism of multinational corporations. It also highlights the issues of global governance and social responsibility as well as the differences and similarities of management techniques across national borders. Finally, the course examines the future of multinational corporations in the context of global financial, social, and environmental crises.

NOTE: Students who have received credit for IBUS 466 may not take this course for credit.

MANA 477 Real Estate Law (3 credits)

Prerequisite: COMM 315. This course introduces students to the basics of Canada's legal system as it pertains to the real estate industry. It covers major areas of real estate law including real property rights, property ownership, real estate transactions, contracts, leases, mortgages and the regulation of real estate brokerage. This course may include topics such as land zoning, urban planning, environmental issues, and other issues associated with real estate development and management.

MANA 478 Entrepreneurial Company Law (3 credits)

Prerequisite: COMM 315. Since many business enterprises are operated as corporations, it is important to familiarize students with the legal aspects involved in creating and managing a corporation. This course is aimed at both students who wish to set up new business enterprises and at those who wish to manage existing businesses effectively. Students study the legal process through which a corporation is set up, and examine strategically important issues relating to the control and voting of shares, unanimous shareholders' agreements, the duties and liabilities of shareholders, directors, and officers, the sale of shares and the protections provided by law to minority shareholders. The Canada Business Corporations Act (C.B.C.A.) along with other related laws, actual court cases and sample legal documents are studied.

MANA 479 Employment Law (3 credits)

Prerequisite: COMM 315. This course familiarizes students with important legal issues associated with labour management through the study of the laws and relevant court cases dealing with the rights and obligations of employers and employees, labour standards, certification of unions, strikes, lock-outs, grievances, and arbitration. This course focuses primarily on the labour laws of Quebec, while examining Canadian labour issues.

MANA 480 Entrepreneurial Family Business (3 credits)

Prerequisite: COMM 320. Family businesses are the predominant form of business in the world. Almost 80 per cent of new ventures are born as family firms and over 65 per cent of all Canadian firms are family firms. In these firms, family members significantly influence the business including its creation, continuity, mode and extent of growth, and exit. This course prepares students to work effectively and professionally in and with family firms to launch and create cross-generational wealth in family firms.

NOTE: Students who have received credit for this topic under a MANA 499 number may not take this course for credit.

MANA 481 Management Consulting (3 credits)

Prerequisite: COMM 401 previously or concurrently. This course focuses on the management consulting profession and process. It offers an examination of the different phases of the consulting process and a reflection on the role of internal consultants and the choice of management consulting as a career. It focuses on the understanding and development of core consulting skills which are essential for any type of consulting engagement, whether one works as an external or internal consultant, and whether the client is a large, medium, or entrepreneurial company, public or non-profit sector organization. A major component of the course is a real-world consulting project that students conduct with a client firm.

NOTE: Students who have received credit for this topic under a MANA 499 number may not take this course for credit.

MANA 482 Financing of Entrepreneurial Ventures (3 credits)

Prerequisite: COMM 320. The course objectives are to understand the nature of the financing problem at various stages of business growth; to analyze the advantages and disadvantages of different sources of funding, including internal sources, informal sources, commercial banks, government, business angels, venture capital, and going public; and to appreciate the key elements that go into the structuring of the deal between entrepreneurs and finance providers.

MANA 490 Honours Seminar in Management II (3 credits)

Prerequisite: Completion of 60 credits in a business program including MANA 390. This course provides students with an opportunity to carry out an in-depth investigation of a selected business problem in small business management, sustainability, family business or related fields. Emphasis is placed on the relevance of current management research findings to managers or employees in business organizations, institutions or industries. Students select a topic related to their area of interest and carry out a research project in collaboration with faculty supervisors. Data collected from various sources including, but not limited to, interview, survey or archival sources are used to heighten the relevance of the findings to a target audience. Students write a practitioner-style article, and give an oral presentation at the end of the term. The course allows students to provide a useful service to practitioners, while deepening their understanding of key areas in management, and building a career-enhancing professional network.

MANA 493 (also listed as IBUS 493)**International Business Law** (3 credits)

Prerequisite: COMM 315; MANA 466 or IBUS 466. This course familiarizes business students with the principles of international private and public law that they may encounter in today's fast-paced world of multinational corporations and global business transactions. Topics include international trade organizations and treaties; principles relating to international sales contract performance and dispute resolution alternatives; international payment using bills of exchange and letters of credit; labour in a global economy including child labour and human trafficking issues; international environmental law, waste disposal and pollution issues; as well as the protection of intellectual property rights.

NOTE: Students who have received credit for IBUS 493 may not take this course for credit.

MANA 498 Special Topics in Human Resource Management (3 credits)

Prerequisite: MANA 362, and any two of the following: MANA 443, 444, 446. This course is intended to complement and supplement human resource management (HRM) courses taken previously or concurrently. It offers flexibility in content that enables an emphasis on contemporary HRM literature and issues.

NOTE: Specific topics for this course and prerequisites relevant in each case are stated in the Undergraduate Class Schedule.

MANA 499 Special Topics in Management (3 credits)

Prerequisite: Written permission of the Department. Intended to complement and supplement business courses taken previously or concurrently, this course emphasizes business literature and modern thought. Students are encouraged to work independently on research topics of interest to them. Students repeating MANA 499 register for credits under MANA 498.

NOTE: Specific topics for this course and prerequisites relevant in each case are stated in the Undergraduate Class Schedule.

Faculty

Associate Professor and Chair of the Department
DARLENE WALSH, PhD *University of Toronto*

Distinguished Professors Emeriti
ULRIKE de BRENTANI, PhD *McGill University*
V.H. (MANEK) KIRPILANI, PhD *Université de Montréal*
CHRISTOPHER A. ROSS, PhD *University of Western Ontario*

Professors Emeriti
B. ZEKI GIDENGIL, PhD *University of Bradford*
ANNAMMA JOY, PhD *University of British Columbia*
RONALD MCTAVISH, PhD *Strathclyde University*

Professors
BRYAN BARBIERI, MBA *Columbia University*
ONUR H. BODUR, PhD *Virginia State University*
B. KEMAL BÜYÜKKURT, PhD *Indiana University*
BIANCA GROHMANN, PhD *Washington State University*
MICHEL LAROCHE, PhD *Columbia University; Provost's Distinction*
JORDAN LE BEL, PhD *McGill University; Provost's Distinction*
MICHELE PAULIN, PhD *Université du Québec à Montréal*
LEA PREVEL KATSANIS, PhD *George Washington University*
GAD SAAD, PhD *Cornell University*
MRUGANK V. THAKOR, PhD *Indiana State University*

Associate Professors
ZEYNEP ARSEL, PhD *University of Wisconsin-Madison*
TIESHAN LI, PhD *University of British Columbia*
JOOSEOP LIM, PhD *University of California, Irvine*
CAROLINE ROUX, PhD *Northwestern University*

Assistant Professors
PIERRE-YANN DOLBEC, PhD *York University*
SHARLENE HE, PhD *Northwestern University*
SUNAH KIM, PhD *Purdue University*
HAMID SHAKER, PhD *HEC Montreal*
KAMILA SOBOL, PhD *York University*

Senior Lecturer
HAROLD SIMPKINS, MBA *Concordia University*

Lecturers
ANDRE CHAMOUN, MBA *University of Ottawa*
BONNIE FEIGENBAUM, MSc *Concordia University*
SHUSHAN KARAPETYAN, MA *University of the Arts London*

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus
MB Building, Room: 013-207
514-848-2424, ext. 2952

Department Objectives

The Marketing Department seeks to cultivate in each student the skills and perspectives essential for effective and responsible marketing. Emphasis is on creating marketing strategies and plans based on a thorough understanding of consumer and industrial buying behaviour.

The Department is committed to fostering a dynamic entrepreneurial orientation together with an appreciation of the essence, importance, and potential power of marketing.

Programs

24 Major in Marketing
12 MARK 301, 302, 305, 495
12 additional MARK credits

12 Minor in Marketing
6 MARK 302, 305
6 additional MARK credits

Marketing Co-operative Program

Director

HAROLD J. SIMPKINS, *Senior Lecturer*
514-848-2424, ext. 2955

The Marketing co-operative program is offered to students who are enrolled in the BComm program and are majoring in Marketing. The academic content of the co-op program is identical to that of the regular program, but three work terms are interspersed with six study terms.

Students are supervised individually and must meet the requirements specified by both the John Molson School of Business and the Institute for Co-operative Education in order to continue their studies in the co-op format.

Liaison between the student, the employers, and the Institute for Co-operative Education is provided by the Marketing co-op academic director and the co-op committee.

Please refer to §24 of this Calendar for a full description of the co-operative format of the program.

Courses

The Department strongly recommends that students take MARK 302 and 305 before enrolling in Marketing courses at the 400 level.

MARK 201 *Introduction to Marketing* (3 credits)

This course introduces non-Commerce students to the managerial concepts and practices of marketing. The process of developing a marketing strategy is examined along with the factors and interrelationships related thereto. Readings and cases are used to help students apply these concepts in a variety of business settings.

NOTE: This course is available to non-Commerce program students only. Any such student intending to register in the Marketing Elective Group for Non-Commerce Students or intending to take specific upper-level Marketing courses must take this course as a prerequisite.

MARK 301 *Marketing Management II* (3 credits)

Prerequisite: COMM 223 or 224 or MARK 201. This course focuses on the management of marketing in organizations. Target market selection and each component of the organization's offer bundle are scrutinized. The course is application-oriented. Additionally, cases are used in order to reinforce learning and to help each student cultivate excellent problem-solving and decision-making skills. Other areas in which marketing can be applied are introduced.

MARK 302 *Marketing Research* (3 credits)

Prerequisite: COMM 223 or 224 or MARK 201. The role of research in the marketing process, the role of models, and the development of measurement techniques are discussed. Emphasis is placed on the nature and scope of marketing research methods for obtaining internal and external data, and on the steps and principles involved in gathering and analyzing data. The student is also briefly introduced to applications of marketing research and to the technique involved in conducting a marketing study.

NOTE: Students who have received credit for MARK 402 may not take this course for credit.

MARK 305 *Consumer Behaviour* (3 credits)

Prerequisite: COMM 223 or 224 or MARK 201. This course analyzes the motivations, roles, and behaviour of the consumers, how they are affected by economic, social, and cultural influences, and how the marketer may model this behaviour for decision-making purposes.

NOTE: Although not required, it is strongly recommended that MARK 302 be taken prior to or concurrently with this course.

NOTE: Students who have received credit for MARK 405 may not take this course for credit.

MARK 444 Sports Marketing (3 credits)

Prerequisite: COMM 223 or MARK 201. The overall objective of the course is to familiarize students with the keys to success in each facet of sports marketing. It covers all aspects of the marketing management process in the particular context of sports marketing and allocates attention to the two major aspects: marketing *through* sports and marketing *of* sports. It deals with the marketing processes and guiding principles involved in understanding, creating, communicating and delivering value for the different types of customers in the sports industry (i.e. fans, participants, corporate sponsors, broadcasting networks, and society at large). Lectures, readings, cases, guest speakers and a major team research project/presentation are used to achieve the learning outcomes.

NOTE: Students who have received credit for this topic under a MARK 491 number may not take this course for credit.

MARK 451 Marketing of Services (3 credits)

Prerequisite: COMM 223 or 224 or MARK 201. This course explores the challenges of providing outstanding customer service and becoming a recognized *service leader* in any given industry. Through lectures, discussions, situation analyses, field studies, and reports, students come to: 1) understand the strategic importance of services, 2) develop a service management mindset, 3) master the key elements of services marketing, 4) learn to manage the service delivery processes, 5) appreciate the significance of a *customer-focus* in service delivery, 6) recognize the challenges of sustainable *moments of truth*, and 7) adopt *customer-centric* managerial approaches to achieve better business performance through service excellence.

NOTE: Students who have received credit for this topic under a MARK 491 number may not take this course for credit.

MARK 452 e-Marketing (3 credits)

Prerequisite: COMM 223 or 224 or MARK 201. This course offers an introduction to e-marketing strategies and tools that are required for effective marketing via electronic media. In particular, this course focuses on conceptualization regarding new media and practical tools, both of which will contribute to students' ability to analyze new marketing opportunities arising from new electronic media and to develop an appropriate course of action to leverage their strengths. Topics include online advertising, e-commerce, mobile marketing, social media, search engine optimization, web analytics, and eCRM.

NOTE: Students who have received credit for this topic under a MARK 491 number may not take this course for credit.

MARK 453 Marketing Communications (3 credits)

Prerequisite: COMM 223 or 224 or MARK 201. This course introduces students to the field of marketing communications. The initial part of the course examines the role that communications play in marketing strategy. Then, the specific elements involved in developing and executing an effective promotional campaign such as message strategy, creative execution, media planning and budgeting are examined. Next, the course covers ways to support the promotional campaign through various communication tools, such as sales promotion, Internet marketing, personal selling, publicity and direct marketing. The course ends with a discussion of some of the key legal, ethical and social aspects of marketing communications.

MARK 454 Personal Selling (3 credits)

Prerequisite: COMM 223 or 224 or MARK 201. This course has a dual focus: the cultivation of personal selling skills, and the theoretical and applied aspects of managing the personal selling function. Cases, readings, simulations, and presentations are deployed to achieve the course goals.

MARK 457 Marketing Channels (3 credits)

Prerequisite: COMM 223 or 224 or MARK 201. This course focuses on the different ways in which organizations make their goods and services available for consumption: the inter-organizational system that makes up channels of distribution. Topics covered include why marketing channels exist, the specific nature of channel decisions, design of channel systems, management of relationships among channel members, wholesaling, franchising and direct distribution. The role that the revolution in electronic commerce plays in channels is also examined.

MARK 458 The Marketing of Food (3 credits)

Prerequisite: COMM 223 or 224 or MARK 201. This course introduces students to the structure of the food industry which encompasses various entities including farmers and producers, commodity brokers, importers, distributors, packaged goods manufacturers, transformers, retailers, and restaurants, the operating realities of its key players, and the issues and challenges facing them. Pressing societal issues such as obesity and the need for responsible stewardship over food resources are addressed. The course exposes students to potential solutions as well as new theories and concepts that broaden their marketing knowledge and provide them with the tools to develop solutions to current food marketing challenges. A combination of formal lectures, live case studies, group work, student presentations, in-class exercises, and guest speakers are used.

NOTE: Students who have received credit for this topic under a MARK 491 number may not take this course for credit.

MARK 460 Integrated Marketing Communications Practicum (3 credits)

Prerequisite: MARK 452, 453. This practicum course builds on and supplements the concepts that were covered in MARK 453. It focuses on the application and integration of all the tools of marketing communications such as advertising, sales promotion, public relations and publicity, personal selling, direct marketing, and Internet marketing. The course also takes into account all contact points and stakeholder groups, including consumers, employees and suppliers, governments, distribution channel members, local communities, opinion leaders and the media. An integral component of the course is the development of a complete integrated marketing communications plan for presentation to a "real life" client using concepts that are discussed in class.

MARK 462 (also listed as IBUS 462)***Environment of World Business*** (3 credits)

Prerequisite: COMM 210, 215, 223 or 224. This is a foundation course in international business; the objective is to present information which exposes the student to cultural, social, political, economic, legal, and financial environments in which Canadian business executives manage their operations abroad. All students are encouraged to develop their own philosophy towards international business activities by developing research and analytical skills in analyzing current and long-term problems perceived in different economic systems and environments. Specific topics include empirical dimensions of world economy, economic development, international trade and investment patterns, regional economic co-operation, area studies, Canadian nationalism, and foreign investment in Canada.

NOTE: Students who have received credit for IBUS 462 may not take this course for credit.

MARK 463 *Retailing* (3 credits)

Prerequisite: COMM 223 or 224 or MARK 201. This course seeks to apply the theories of marketing and administration to the retail situation. Topics covered include site selection for single and multi-unit retail outlets, organizing and staffing the retail operation, the wholesaler-retailer relationship, consumer behaviour in the retail situation. The impact of such new developments as consumer co-operatives, franchising, discounting, and computer technology on the future of retailing is also considered.

MARK 465 (also listed as IBUS 465)***International Marketing Management*** (3 credits)

Prerequisite: MARK 462 or IBUS 462. This course studies the management approach to international marketing, with emphasis on key variables that are controllable by the international marketing manager. Attention is focused on market measurement, product policy, channels, pricing, and promotion, with special emphasis on the development and control of multinational marketing strategies and programs. Students will execute a project directed to a selected part of the world.

NOTE: Students who have received credit for IBUS 465 may not take this course for credit.

MARK 485 *Business-to-Business Marketing* (3 credits)

Prerequisite: COMM 223 or 224 or MARK 201. The course focuses on the managerial aspects of industrial marketing. The concept of organization buying behaviour and its impact on marketing strategy formulation are discussed. Management of the industrial marketing mix considering product service development, intelligence, promotion, channels, and performance measurement is covered, both in existing product lines and new product-launch activities.

MARK 486 *Product Strategy and Innovation* (3 credits)

Prerequisite: COMM 223 or 224 or MARK 201. The focus of this course is the development of a dynamic and successful product strategy for the organization. Topics covered include product life cycle concepts, the adoption and diffusion of innovations, strategic product planning, developing the service offering, and the process of innovating and launching new products and services.

MARK 491 *Special Topics Seminar* (3 credits)

Prerequisite: COMM 223 or 224 or MARK 201. This course focuses on issues of current and potential concern to marketers. The content may vary from year to year.

NOTE: Specific topics for this course and additional prerequisites relevant in each case are stated in the Undergraduate Class Schedule.

MARK 492 (also listed as IBUS 492)***Cross-Cultural Communications and Management*** (3 credits)

Prerequisite: MARK 462 or IBUS 462. This course deals with the multicultural dimensions of international business operations. The objective is to develop Canadian managerial skills for effective performance in an international setting. Topics covered include international negotiations, management of multicultural personnel, cross-cultural consumer behaviour profile, cross-cultural communication, and other cultural aspects of marketing strategy.

NOTE: Students who have received credit for IBUS 492 may not take this course for credit.

MARK 493 *Current Issues in Marketing* (3 credits)

Prerequisite: COMM 223 or 224 or MARK 201. This course focuses on issues of current and potential concern to marketers. The content may vary from year to year.

NOTE: Specific topics for this course and additional prerequisites relevant in each case are stated in the Undergraduate Class Schedule.

MARK 495 *Strategic Marketing Planning* (3 credits)

Prerequisite: 60 credits including MARK 301, 302, 305 and six other Marketing credits at the 400 level. This is a holistic, integrative, capstone course directed primarily at cultivating the skills and techniques required for effective marketing planning. Various pedagogical tools including cases, readings, and a major project are deployed to achieve the course goals. Students will develop an actual marketing plan for a product, service, or idea using the concepts and techniques studied throughout their major program.

ADDITIONAL PROGRAM OPTIONS FOR BUSINESS STUDENTS

Section 61.130

This section lists multidisciplinary programs that are not listed in other parts of §61 of this Calendar.

MINOR IN REAL ESTATE

This multidisciplinary program is offered to students who are interested in real estate.

It is open to students registered in a program leading to an undergraduate degree in the John Molson School of Business.

12 Minor in Real Estate

- 3 FINA 210
 - 6 additional credits chosen from FINA 310, 320, 420; MANA 477
 - 3 additional credits chosen from URBS 230, 240, 250, 393
-

PROGRAM OPTIONS FOR NON-BUSINESS STUDENTS

Section 61.140

Courses Offered to Non-Business Students

Students enrolled in programs outside the John Molson School of Business may register for a maximum of six credits per term, up to a maximum of 30 credits offered by the School of Business.

Students not registered in the John Molson School of Business, who wish to register in any courses offered by the School, but do not have the stated prerequisites, must obtain permission in writing from the Student Request Committee of the John Molson School of Business *prior to registration*. The Office of the Associate Dean reserves the right to deregister those students who do not adhere to academic regulations.

CERTIFICATE IN FOUNDATIONS FOR BUSINESS

The Certificate in Foundations for Business is a non-degree program that caters to students who wish to develop the necessary background for further study in undergraduate degree programs in business. It also may be of interest to students whose preference is to follow a short program of study or to learn important foundations for business studies.

The certificate requires successful completion of 30 credits. Students may transfer into the certificate program up to 12 credits earned in an incomplete degree or certificate program or as an Independent student, provided they are students in acceptable standing. The credits that may be so transferred are determined by the University at the point of entry into the program. Students who are admitted to the Certificate in Foundations for Business and wish to continue in a degree program should apply for admission to that program within the first 30 credits.

Admission Requirements

Applicants to this program must satisfy the general admission requirements stated in §13.3 of this Calendar. The specific admission requirements are listed in the Undergraduate Program Guide and on the Concordia website.

Program

30 Certificate in Foundations for Business

12 ECON 201, 203; MATH 208, 209

18 ACCO 230; BTM 200; COMM 215; FINA 230; MANA 201; MARK 201

NOTE: In the event that a student is awarded an exemption from a required course, it will be necessary for the student to replace that course with another relevant to the program, chosen in consultation with an academic advisor.

CERTIFICATE IN BUSINESS STUDIES

This program is not open to students registered in a program leading to an undergraduate degree. Students may transfer into the certificate program up to 12 credits earned in an incomplete degree or certificate program or as an Independent student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the program.

Admission Requirements

MATH 208, 209; ECON 201, 203; BTM 200.

Program

30 Certificate in Business Studies

24 COMM 205, 210, 215, 217, 220, 222, 223, 225

6 additional credits from the John Molson School of Business chosen in consultation with an academic advisor.

MINOR IN BUSINESS STUDIES

This program is not open to students registered in a program leading to an undergraduate degree in the John Molson School of Business.

Admission Requirements

MATH 208, 209; ECON 201, 203; BTM 200.

NOTE: A minimum cumulative GPA of 2.50 and a minimum GPA of 2.70 in both MATH 208 and 209 (or equivalent) are required for admission to this minor.

Program

- 30 Minor in Business Studies
24 COMM 205, 210, 215, 217, 220, 222, 223, 225
6 additional credits from the John Molson School of Business chosen in consultation with an academic advisor.
-

Program

MANAGEMENT ELECTIVE GROUP FOR NON-BUSINESS STUDENTS

This 15-credit elective group is available to students registered in undergraduate programs outside of the John Molson School of Business. Students choosing this elective group have the opportunity to add a business-oriented management component to their arts, science, engineering, or fine arts degrees.

- 15 Management Elective Group for Non-Business Students
6 MANA 201, 202
9 Additional credits from MANA 298, 300, 343, 362, 374

NOTE: Since non-business students can only register for a maximum of 30 credits within the John Molson School of Business, students registered in the Minor in Business Studies or the BCompSc Information Systems Option cannot register for the Management elective group.

Program

MARKETING ELECTIVE GROUP FOR NON-BUSINESS STUDENTS

This 15-credit elective group is available to students registered in undergraduate programs outside the John Molson School of Business. Students choosing this elective group have the opportunity to add a business-oriented marketing component to their arts, science, engineering, or fine arts degrees.

- 15 Marketing Elective Group for Non-Business Students
9 MARK 201, 302, 305
6 Additional credits from MARK 451, 452, 453, 454, 460, 463, 485, 486

NOTE: Since non-business students can only register for a maximum of 30 credits within the John Molson School of Business, students registered in the Minor in Business Studies or the BCompSc Information Systems Option cannot register for the Marketing elective group.

Program

THE BASICS OF BUSINESS ELECTIVE GROUP

This interdisciplinary elective group is designed for non-business students seeking insight into the exciting world of business.

- 15 The Basics of Business Elective Group
15 Chosen from ACCO 230, 240; COMM 215; FINA 200; MANA 201, 202, 298; MARK 201

NOTE: This elective group is not open to BComm/BAdmin students. Not all elective-group credits are transferable to the BComm/BAdmin program.

NOTE: Students who have received credit for MANA 266, 213, or 211 may not take MANA 201, 202, or 298 for credit, respectively.

NOTE: Since non-business students can only register for a maximum of 30 credits within the John Molson School of Business, students registered in the Minor in Business Studies or the BCompSc Information Systems Option cannot register for the Basics of Business elective group.

61.150 SPECIAL CERTIFICATE PROGRAMS

There are many organizations within the business community designed to serve the needs of people working in specialized areas of business. These organizations recognize that the educational qualifications of those seeking membership must be continually upgraded. Therefore, they sponsor an academic certificate which may be obtained through correspondence courses, or through a lecture program.

The John Molson School of Business co-operates with these business organizations by permitting personnel to register as Visiting students, and to take courses leading to a certificate to be awarded by the organization concerned.

Students must comply with the University regulations regarding dates of application and Visiting Business student entrance requirements as outlined in the Academic Calendar §11. In addition, they must meet the requirements of the specific organization. The credit courses taken may be applied towards the BComm degree, provided the student meets the admission requirements and wishes to transfer from Visiting Business status to undergraduate status after completing a certificate program. Students are advised that they must meet the BComm curriculum requirements in force at the date of transfer.

Each certificate program has one or more special courses required to complete the program. These courses do not carry credit towards an undergraduate degree and are designated as non-credit courses.

Students interested in the following certificate programs may obtain details of required courses from the organization concerned:

- The American Marketing Association (Montreal Chapter)
 - Institute of Canadian Bankers
 - The Insurance Institute of Canada
 - The Trust Companies Institute of Canada
 - Professional Secretaries International (CPS)
 - Canadian Institute of Management
-

61.160 SPECIAL PROGRAMS IN ACCOUNTANCY

CERTIFICATE IN ACCOUNTANCY

The main purpose of the Certificate in Accountancy is to help students who have completed a bachelor's degree in a field other than Accountancy to complete coursework that may qualify students for entry to the Graduate Diploma in Chartered Professional Accountancy program. Students may transfer into the certificate program up to 12 credits earned in an incomplete degree or certificate program or as an Independent student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the program.

Admission Requirements

- a) Bachelor's degree
 - b) MATH 208, 209; ECON 201, 203; BTM 200; COMM 217, 305
-

Program

30 Certificate in Accountancy

- 18 ACCO 310, 320, 330, 340, 360, 420
- 12 additional credits from the John Molson School of Business that are needed to satisfy some of the requirements of the CPA designation.

L'ORDRE DES COMPTABLES PROFESSIONNELS AGRÉÉS DU QUÉBEC: Chartered Professional Accountant (CPA)

The John Molson School of Business offers a Diploma in Chartered Professional Accountancy. Entry into the program normally requires an undergraduate degree in Commerce, and a Major in Accountancy with high academic standing. Applicants lacking an appropriate pattern of undergraduate work will be required to successfully complete certain qualifying courses, as assigned by the director of the program and the Order of Chartered Professional Accountants of Quebec. For further details, refer to the Graduate Calendar of Concordia's School of Graduate Studies.

Gina Cody School of Engineering and Computer Science

- | | | | |
|-------|--|--------|---|
| 71.10 | GINA CODY SCHOOL OF ENGINEERING
AND COMPUTER SCIENCE | 71.75 | COMPUTER SCIENCE IN HEALTH AND
LIFE SCIENCES |
| 71.20 | BENG | 71.80 | COMPUTATION ARTS AND
COMPUTER SCIENCE |
| 71.30 | DEPARTMENT OF ELECTRICAL AND
COMPUTER ENGINEERING | 71.85 | MATHEMATICS AND STATISTICS AND
COMPUTER SCIENCE |
| 71.40 | DEPARTMENT OF MECHANICAL,
INDUSTRIAL AND AEROSPACE
ENGINEERING | 71.90 | CENTRE FOR ENGINEERING IN SOCIETY |
| 71.50 | DEPARTMENT OF BUILDING, CIVIL AND
ENVIRONMENTAL ENGINEERING | 71.100 | CONCORDIA INSTITUTE FOR
INFORMATION SYSTEMS ENGINEERING |
| 71.55 | AEROSPACE ENGINEERING | 71.105 | DEPARTMENT OF CHEMICAL AND
MATERIALS ENGINEERING |
| 71.60 | ENGINEERING COURSE DESCRIPTIONS | 71.110 | COMPLEMENTARY STUDIES FOR
ENGINEERING AND COMPUTER
SCIENCE STUDENTS |
| 71.70 | DEPARTMENT OF COMPUTER SCIENCE
AND SOFTWARE ENGINEERING | | |

Section 71

Interim Dean

MOURAD DEBBABI, PhD *Université de Paris*

Associate Dean, Academic Affairs

HOI DICK NG, PhD *McGill University*, ing.; *Provost's Distinction*

Associate Dean, Research and Graduate Studies

EMAD SHIHAB, PhD *Queen's University*, PEng

Associate Dean, Student Academic Services and Equity, Diversity and Inclusion

ANJALI AGARWAL, PhD *Concordia University*, PEng

Associate Dean, Academic Programs and Undergraduate Activities

ALI AKGUNDUZ, PhD *University of Illinois at Chicago*, PEng

Chair, Department of Electrical and Computer Engineering

YOUSEF R. SHAYAN, PhD *Concordia University*, PEng

Chair, Department of Mechanical, Industrial and Aerospace Engineering

MARTIN D. PUGH, PhD *University of Leeds*, PEng; *Provost's Distinction*

Chair, Department of Building, Civil and Environmental Engineering

ASHUTOSH BAGCHI, PhD *Carleton University*, PEng

Chair, Department of Computer Science and Software Engineering

LATA NARAYANAN, PhD *University of Rochester*, ing.

Director, Concordia Institute for Information Systems Engineering

ABDESSAMAD BEN HAMZA, PhD *North Carolina State University*, PEng

Chair, Centre for Engineering in Society

GOVIND GOPAKUMAR, PhD *Rensselaer Polytechnic Institute*

Location

Sir George Williams Campus

Engineering, Computer Science and Visual Arts Complex, Room: EV 002.139; 514-848-2424, ext. 3109

Student Academic Services, Room: EV 002.125; 514-848-2424, ext. 3055

Mission Statement

The Gina Cody School of Engineering and Computer Science is dedicated to providing high-quality and comprehensive undergraduate and graduate curricula, to promoting high-calibre research, and to the development of the profession of engineering and computer science in an ethical and socially responsible manner. We strive to prepare graduates to solve real world problems with excellent professional skills leading to superior career opportunities.

71.10 GINA CODY SCHOOL OF ENGINEERING AND COMPUTER SCIENCE

71.10.1 Programs Offered

The following programs are offered in the Gina Cody School of Engineering and Computer Science:

1. BEng degrees in Aerospace, Building, Civil, Computer, Electrical, Industrial, Mechanical, and Software Engineering.
2. BCompSc degree.
3. Minor in Computer Science.
4. Certificate in Science and Technology.

The requirements for the programs are different, and the appropriate section in the following pages must be consulted for each.

71.10.2 Admission Requirements

General admission requirements are listed in §13

In addition, the following specific requirements exist for the various programs. Applicants should specify their choice of program on their application.

Students entering the Gina Cody School of Engineering and Computer Science are presumed to have acquired some familiarity with computers and programming, either through a course or through time spent working with a personal or other computer.

APPLICANTS FROM QUEBEC INSTITUTIONS

Successful completion of a two-year pre-university Cegep program is required, including the specific courses in the appropriate profile, as follows:

1. BEng (all programs)

Cegep Profile

Mathematics 201 —
103 or NYA, 105 or NYC, 203 or NYB
Physics 203 —
101 or NYA, 201 or NYB
Chemistry 202 —
101 or NYA

2. BCompSc

BCompSc Joint Major in Computation Arts and Computer Science
BCompSc Joint Major in Mathematics and Statistics and Computer Science
Minor in Computer Science

Cegep Profile 10.12

Mathematics 201 —
103 or NYA, 105 or NYC, 203 or NYB

3. BCompSc in Health and Life Sciences

Cegep Profile

Mathematics 201 —
103 or NYA, 105 or NYC, 203 or NYB
Physics 203 —
101 or NYA, 201 or NYB
Chemistry 202 —
101 or NYA
Biology 101 —
301 or NYA

Applications from graduates of Cegep technology programs will also be considered. Program requirements for successful applicants will be determined on an individual basis.

APPLICANTS FROM OUTSIDE QUEBEC

Academic qualifications presented by students applying from institutions outside Quebec should be comparable to those expected of students applying from within Quebec.

Where the pre-university education is shorter than in Quebec, students may be considered for admission to the first year of the Extended Credit Program. (See §13.3.2 to 13.3.6, §71.20.2, and 71.70.3)

MATURE ENTRY

Admission requirements are listed in §14.

71.10.3 Academic Regulations

Students should refer to the Academic Regulations of the University in §16.

Definitions

Assessable courses: *all record entries of courses* listed in this Concordia Calendar for which a grade point value is specified in §16.1.11. However, any course which is a requirement for admission to a program offered by the Gina Cody School of Engineering and Computer Science will not be counted unless specifically listed on the student's admission letter.

Dean's Office: appropriate member of the Dean's Office, normally the Associate Dean, Student Academic Services.

Program of Study: course requirements in effect at the time of the latest admission or readmission to a program, for example, BEng (Civil) or BCompSc (Information Systems), including modifications on an individual basis as specified or approved in writing by the Dean's Office, or the Student Request Committee of the GCS Council.

Grade Points: as defined in §16.1.11 of this Calendar.

Assessment Grade Point Average (AGPA): as defined in §16.3.10 of this Calendar.

Academic Year: a period which begins with a summer session followed by a regular session (fall and winter).

Objectives

The objectives of these regulations are:

- a) to ensure that the GCS can certify that all of its graduates are qualified to enter their profession, and
- b) to ensure that students can, with the assistance or intervention of the GCS, assess themselves objectively and plan programs of study designed to meet their individual needs.

Grading System

See §16.1.11 for the Concordia grading system.

NOTE: Although a "C-" grade is designated as satisfactory, an AGPA of at least 2.00 for the assessment period is required for acceptable standing in the Gina Cody School of Engineering and Computer Science.

Regulations

1. Students' standings are assessed at the end of each academic year providing they have attempted at least 12 credits subsequent to their previous assessment, or in the case of a first assessment, subsequent to their admission to a program of study.
Standings of students who have attempted less than 12 credits since their last assessment are assessed as follows:
 - a) The standings of potential graduates are determined on the basis that these credits constitute an extension of the last assessment period.
 - b) The standings of other students are determined at the end of the academic year in which they have attempted a total of at least 12 credits since their last assessment.
2. Students' standings are determined according to the following criteria.

Acceptable Standing:

An AGPA of at least 2.00 for the assessment period.

Students in acceptable standing may proceed subject to the following conditions: any failing grade must be cleared by repeating and passing the failed course; or in the case of an elective, by replacing the failed course by an alternative within the same group of electives and passing this course. Any variation must be approved by the Dean's Office.

Conditional Standing:

An AGPA of at least 1.50 but less than 2.00 for the assessment period.

Students in conditional standing may proceed subject to the following conditions.

- a) They must successfully repeat all courses in which failing grades were obtained, or replace them by alternatives approved by the appropriate member of the Dean's Office in consultation with the student's department.
- b) They must repeat or replace by approved alternatives at least one-half of those courses in which they obtained grades in the "D" range. The specific courses to be repeated will be determined by the Dean's Office in consultation with the student's department.
- c) A grade of C- or better must be obtained in courses specified in a) and b) in order to graduate.
- d) Courses to be taken may be specified by the Dean's Office. In no case will the number of credits exceed 15 per term for full-time students and seven and a half per term for part-time students.
- e) They must obtain acceptable standing at the time of their next assessment.

Failed Standing:

Failure to meet the criteria for acceptable or conditional standing, or remaining in conditional standing for two consecutive assessments.

Failed students may apply for readmission through the Dean's Office – Student Academic Services. If readmitted, they will be placed on academic probation. The *Application for Readmission* form is available in the Student Academic Services Office or can be obtained from the Student Academic Services website located at: concordia.ca/ginacody.

Full consideration will be given to all applications that have been received by the deadline indicated on the *Application for Readmission* form. Every attempt will be made to inform students regarding the status of their application by August 1 of each year.

Students who are in failed standing and have been absent from their program for nine consecutive terms should refer to §71.10.4 since a new application for admission is required.

No students will be readmitted for the winter term or summer session.

Readmitted students are subject to the following regulations:

- a) They must successfully repeat all courses in which failing grades were obtained, or replace them by alternative courses approved by the appropriate member of the Dean's Office in consultation with the relevant Department.
- b) They must repeat or replace, by approved alternatives, all of the courses in which they obtained grades in the "D" range for the academic year in which they were assessed as failed, and any previous outstanding repeats. The specific courses to be repeated will be determined by the Dean's Office.

- c) A grade of C- or better must be obtained in courses specified in a) and b) in order to graduate.
- d) They must successfully complete all courses they are required to repeat prior to further registration in other courses.
- e) They must return to acceptable standing at the time of their next assessment.
- f) Other conditions may be applied as deemed appropriate by the Dean's Office.

Supplemental Examinations

Students may apply to write a supplemental examination by submitting a *Student Request* form if they meet the conditions listed below; however, meeting the conditions does not guarantee approval of the request. Supplemental examinations must be passed with a minimum grade of C- in order to graduate. Granting a supplemental exam will be considered if all of the following conditions are met:

- a) Students are in acceptable academic standing. Students in conditional or failed standing (see Regulations for Failed Students and Students in Conditional Standing) may not write a supplemental examination.
- b) The grade for the course is not "R" or "NR," and there is no grade notation "DNW" or "PEND."
- c) Students have not previously written a supplemental examination for any course. Only one supplemental examination will be granted over a student's career in a particular program in the GCS.
- d) A supplemental examination is considered only for students who are potential graduates for the next spring or fall and only if the course cannot be repeated or replaced before graduation. For summer courses, a supplemental examination is considered only in cases where the students are potential graduates for the next fall.
- e) If approved, for fall courses (term designation /2), students may write the supplemental examination in February; for winter courses (term designation /4), students may write in August; and for summer-session courses (session designation /1), students may write in October.
- f) In all cases, supplemental examinations shall be considered only when, as a condition for passing the course, it is required that students pass the final examination regardless of its weighting; or where the final examination contributes 50 per cent or more of the final grade. Students failing a course which comprises entirely, or in part, a laboratory or similar practicum, are not eligible to write a supplemental examination. The GCS reserves the right to obtain the course instructor's feedback regarding adequate performance in course components other than the final examination in order to make a decision regarding approval of the supplemental exam.

71.10.4 Registration Regulations

1. Students in the Gina Cody School of Engineering and Computer Science who have been absent from their program for six consecutive terms or more will be officially withdrawn from their program by the GCS and must submit a new application for admission through the Concordia website: concordia.ca. Students in failed standing at the time of their last registration must submit a new application if absent for more than nine consecutive terms or if the equivalent of 12 credits or more have been attempted at another institution.
2. Except for students registered for the co-operative format, the maximum load in the summer sessions is 14 credits, with no more than eight credits in either of its terms. In the fall and winter terms, the maximum load is 19 credits, except for students registered in the co-operative format. Students taking any of the Capstone courses (AERO 490, BLDG 490, CIVI 490, COEN 490, ELEC 490, INDU 490, MECH 490 or SOEN 490) are limited to 14 credits in each of the fall and winter terms exclusive of the Capstone course.
3. Students from outside the Gina Cody School of Engineering and Computer Science must obtain permission in writing from the Student Academic Services Office prior to registering in any 300-level course other than those listed in the Certificate in Science and Technology, and the Engineering Core, or any 400-level courses offered by the GCS.

Prerequisites

1. Students are responsible for ensuring that they have successfully completed all prerequisites to a course before attempting to register for the course.
2. Students must complete all 200-level courses required for their program before registering for any 400-level courses.
3. All 200-level courses within the program which are prerequisites for other courses must be completed with a C- or higher. A 200-level course in which a student has obtained a D+ or lower must be repeated before attempting a course for which it is a prerequisite.
4. The GCS reserves the right to withdraw a student who has registered for a course without satisfactorily completing all prerequisites.

71.10.5 Graduation Regulations

Students must satisfy all program requirements, be in acceptable standing, and have a minimum final graduation GPA of 2.00. The standings of potential graduates who have attempted less than 12 credits since their last assessment are determined on the basis that these credits constitute an extension of the last assessment period.

Students who fail to meet acceptable standing but meet conditional standing will have the following options:

- a) register for 12 credits and meet the criteria for acceptable standing;
- b) register for fewer than 12 credits. In this case, standing will be determined on the basis that these credits constitute an extension of the last assessment period.

71.10.6 Availability of Programs

Full-time students in the Engineering program normally follow an eight-term sequence. In general, introductory level courses are offered in both day and evening. Subject to the Registration Regulations in §71.10.4 above, a student may register on a part-time basis. Further information on sequencing may be found in the Undergraduate Program Guide issued by the Dean's Office.

71.10.7 Curriculum Requirements and Course Sequences

All students in Engineering programs are required to meet the Canadian Engineering Accreditation Board (CEAB) standards. Students are required to graduate having met the substantial equivalent of the curriculum in force in the winter term prior to degree conferral. It is the student's responsibility to ensure that their course selection meets the program requirements for their graduation. To accommodate this requirement, students are provided with course equivalencies and course sequences on the Student Academic Services website at concordia.ca/ginacody/students/academic-services.

Engineering students should follow the outlined cohort sequence for their program. Failure to do so may result in scheduling problems, the unavailability of courses, or ultimately an extension in the time period to complete their program.

71.10.8 The Co-operative Format

The Institute for Co-operative Education offers a number of work-integrated learning opportunities to students in the Gina Cody School of Engineering and Computer Science. Work-integrated learning is a model of experiential learning that bridges the academic program and the world of work. It provides students with the opportunity to combine study with paid work terms in their chosen fields.

Co-operative Education Programs

The co-op format is available in the following programs in the BCompSc and BEng degrees:

- Aerospace Engineering
- Building Engineering
- Civil Engineering
- Computer Engineering
- Computer Science
- Electrical Engineering
- Industrial Engineering
- Mechanical Engineering
- Software Engineering

The academic content is identical to that of the regular programs with three work terms interspersed with study terms. However, in order to continue their studies in the co-operative format in the Gina Cody School of Engineering and Computer Science, or to graduate from one of its programs as members of the Institute for Co-operative Education, students must satisfy the following conditions:

- (i) must be in acceptable standing and maintain a cumulative grade point average (CGPA)* of at least 2.50 in their program;
- (ii) be assigned a grade of pass for each of the three work-term courses (CWTE or CWTC). Under certain conditions, students may be placed on co-op probation status;
- (iii) remain in their designated work-study sequence. Any deviations must have prior approval by the director of the Institute for Co-operative Education in consultation with the co-op program director in their department.

For a full description of the co-operative education program format and requirements, please refer to §24 of this Calendar.

*The CGPA is calculated in the manner described in §16.3.10.

Regulations for Work Terms

1. Successful completion of the work terms shown in the Co-op Schedule indicated in §24 is a prerequisite for graduation as a member of the Institute for Co-operative Education.
2. Work-term job descriptions are screened by the co-op coordinator. Only jobs approved by the Institute for Co-operative Education will be accepted as being suitable for the work-term requirements.
3. Work-term jobs are full-time employment normally for a minimum of 12 consecutive weeks (14 to 16 weeks preferably).
4. A work-term report must be submitted each work term on a subject related to the student's employment. This report must be submitted to the Institute for Co-operative Education on or before the deadline shown in §24. Grammar and content of work-term reports are evaluated by the Institute for Co-operative Education and the technical aspects are evaluated by the co-op program director responsible. Evidence of the student's ability to gather material relating to the job, analyze it effectively, and present it in a clear, logical, and concise form is required in the report.
5. The required communication component consists of an oral presentation on a technical subject or engineering task taken from the student's work environment. The presentation will be given on campus in a formal setting after students have returned to their study term. A written summary is also required. Guidelines for the preparation of this oral presentation are provided in the Co-op Student Handbook.

6. Work terms will be evaluated for satisfactory completion. Assessment is based upon the employer evaluation of performance, the work-term report and communication component which together constitute the job performance as related to the whole work term. Students must pass all required components. The grade of pass or fail will be assigned to each of the work-term courses. A failing grade will result in the student's withdrawal from the Institute for Co-operative Education.
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71.10.9 Concordia Institute for Aerospace Design and Innovation (CIADI)

The Concordia Institute for Aerospace Design and Innovation (CIADI) promotes awareness and provides leading-edge know-how among Engineering students and practising engineers in design and innovation, particularly in the field of aerospace, with emphasis on its multidisciplinary nature. While some members of the Institute may enter their field upon completion of their degree, the initiation into research provided to CIADI members is helpful to students who wish to pursue graduate studies in the field of aerospace.

Membership

Students accepted to the Institute are selected from among the top second- and third-year undergraduate students in the Gina Cody School of Engineering and Computer Science, and work on collaborative design and research projects over several terms of Engineering studies. Students are supervised by Concordia faculty members and receive mentoring from industry representatives working in the field. Eligible projects are credited by the GCS as capstone design projects.

Registration

Students accepted to the Institute register in one or two zero-credit courses, IADI 301 and 401, in order to remain affiliated with CIADI. A pass or fail is awarded for these courses. Students who receive a pass for IADI 301 may continue in CIADI. Students who successfully complete one or both courses, IADI 301 and 401, will be recognized as full members of the Institute and this recognition will also appear on their official transcript. Students who successfully complete both IADI 301 and 401 will also have this recognition appear on their diploma. Students who fail IADI 301 will not be allowed to continue with CIADI and shall receive no acknowledgement of this activity on their official transcript.

71.20 BENG

71.20.1 Curriculum for the Degree of BEng

The University offers programs leading to the degree of BEng in the fields of Aerospace, Building, Civil, Computer, Electrical, Industrial, Mechanical, and Software Engineering.

The BEng degrees in Aerospace, Computer, Electrical, Industrial, Mechanical and Software Engineering require completion of a minimum of 120 credits. The BEng degrees in Building and Civil Engineering require completion of a minimum of 119 credits. Program requirements comprise a group of required courses with a group of elective courses which allow students to select part of their program to provide some depth in an area of specialization (their "option") according to their particular interests, or breadth in the general field of their chosen discipline.

In their final undergraduate year, students with high standing may apply for permission through the Dean's Office to register for a limited number of graduate courses offered by the GCS in lieu of some courses in the undergraduate program. Students with a minimum CGPA of 3.00 may also request to take additional graduate courses not to be counted towards their undergraduate program. The transferability of these graduate courses into a subsequent graduate program is not guaranteed.

Engineering students wishing to register for a minor must notify the Student Academic Services Office of the Gina Cody School of Engineering and Computer Science in writing. Those students must comply with the regulations of the Faculty governing the chosen minor and must meet the following requirements:

1. Students may not apply for a minor until they have completed a minimum of 20 credits in their Engineering program.
2. Students pursuing a minor must maintain a cumulative GPA of 2.70 in their program courses. Students who fall below a 2.70 GPA in their program courses are required to withdraw from the minor.
3. A maximum of three credits earned to meet the minor requirements may be counted towards the Engineering degree.
4. Students in Computer, Electrical or Software Engineering are not eligible to take the Minor in Computer Science.

Successful completion of a BEng program requires hard work and considerable dedication on the part of each student. Courses are presented with the expectation of an average of about two hours of "outside" work for each lecture hour and about one-half hour of "outside" work for each hour spent in the laboratory for all programs of study.

71.20.2 Extended Credit Program

Students admitted to an Extended Credit Program under the provisions of §13.3.2 or §13.8.1 must successfully complete the requirements of a specific program, as set out in §71.30 to §71.55 and in §71.70.9, plus the following courses:

MATH 203³, 204³, 205³

PHYS 204³, 205³

CHEM 205³

Six credits chosen from courses in the humanities and social sciences. ESL courses and courses that focus on the acquisition of a language may not be used to meet this requirement.

Students in the Extended Credit Program (ECP) or the Mature Entry Program (MEP) (see §14.2.3) or any other students who have been assigned credits in Humanities and Social Sciences must select those credits from the two corresponding lists in §71.110. Those credits cannot be chosen from the list of Other Complementary Studies.

71.20.3 Accreditation by the Canadian Council of Professional Engineers

All Engineering programs in the GCS have been designed to meet the criteria of the Canadian Engineering Accreditation Board. These programs are assessed at regular intervals according to the rules and procedures of the Board. Graduates of accredited programs are qualified for membership in the Ordre des ingénieurs du Québec, or its equivalent in any other provincial jurisdiction.

71.20.4 Membership in the Ordre des ingénieurs du Québec

The Ordre des ingénieurs du Québec ([oiq.qc.ca](http://o iq.qc.ca)) currently admits graduates of the BEng curricula in Building, Civil, Computer, Electrical, Industrial, Mechanical, and Software Engineering, as members. Quebec law requires that candidates seeking admission to provincially recognized Quebec professional corporations (such as the Ordre des ingénieurs du Québec) possess an appropriate knowledge of the French language.

A person is deemed to have that knowledge who:

- (1) has taken at least three years of full-time instruction given in French at the secondary or post-secondary level;
- (2) has passed the French mother tongue examinations in the fourth or fifth grade of the secondary level;
- (3) has obtained in Quebec, a secondary-school certificate for the 1985-86 school year or later.

In all other cases, a person must obtain a certificate delivered by the Office québécois de la langue française (oqlf.gouv.qc.ca) or hold a certificate defined as equivalent by regulation of the Government.

71.20.5 Degree Requirements

To be recommended for the degree of BEng, students must satisfactorily complete the courses of the Engineering Core as well as those specified for their particular program in subsequent sections in accordance with the graduation requirements in §71.10.5.

Engineering Core	Credits
ELEC 275 Principles of Electrical Engineering	3.50 (2)
ENCS 282 Technical Writing and Communication	3.00
ENGR 201 Professional Practice and Responsibility	1.50
ENGR 202 Sustainable Development and Environmental Stewardship	1.50 (1)
ENGR 213 Applied Ordinary Differential Equations	3.00
ENGR 233 Applied Advanced Calculus	3.00
ENGR 301 Engineering Management Principles and Economics	3.00
ENGR 371 Probability and Statistics in Engineering	3.00
ENGR 391 Numerical Methods in Engineering	3.00 (3)
ENGR 392 Impact of Technology on Society	3.00 (4)
General Education elective	3.00 (5)
	30.50

NOTES:

- (1) The Engineering Core credits for students in the Building Engineering program are reduced from 30.5 credits to 29 credits since Building Engineering students are not required to take this course in their program.
 - (2) The Engineering Core credits for students in the Mechanical, Industrial and Aerospace Engineering programs are reduced from 30.5 credits to 27 credits since Mechanical, Industrial and Aerospace Engineering students are not required to take this course in their program. Students in Electrical and Computer Engineering shall replace ELEC 275 with ELEC 273.
 - (3) Students in Software Engineering may replace ENGR 391 with COMP 361.
 - (4) Students in Building Engineering shall replace ENGR 392 with BLDG 482.
 - (5) Students must select three General Education elective credits from one of the lists in §71.110. Students in Industrial Engineering shall take ACCO 220 as their General Education elective.
-

71.20.6 General Education Elective

All Engineering students must complete three credits of General Education. This course may be chosen from courses listed in §71.110.

Please note the following:

- 1) Prior to registering, students who do not have any specified prerequisites for a General Education elective course must obtain permission of the relevant Department.
- 2) An ESL course or an introductory course that deals with the acquisition of a language will not be considered as a General Education elective.
- 3) Should students wish to take a General Education elective course not listed above, they must receive written permission from the Student Academic Services Office of the Gina Cody School of Engineering and Computer Science prior to taking the course.

71.20.7 Writing Skills Requirement

The Gina Cody School of Engineering and Computer Science is committed to ensuring that its students possess good writing skills. Hence, every student in an undergraduate degree program is required to demonstrate competence in writing English or French prior to graduation.

All students admitted to the Gina Cody School of Engineering and Computer Science as of September 2001 must meet the writing skills requirement. To do this, students must either pass the Engineering Writing Test or complete ENCS 272 with a grade of C- or higher. Please note the successful completion of the course ENCS 272 fulfills the GCS writing skills requirement; however, it cannot be used for credit in any GCS degree or certificate program.

Newly admitted students are strongly encouraged to meet the requirement very early in their program (fall term of first year for students starting in September or winter term of first year for students starting in January) in order to avoid the risk of delayed graduation should remedial work prove necessary. The Engineering Writing Test is especially designed to address the writing skills typically demanded of engineers. Students who are required to take ESL courses should meet the writing skills requirements in the term following completion of their ESL courses.

All ESL and English/French language courses taken to satisfy this requirement are in addition to Engineering program requirements.

71.20.8 C.Edge (Career Edge) and Accelerated Career Experience Options

C.Edge Option

The C.Edge option is available in the following programs in the BCompSc and BEng degrees:

- Aerospace Engineering
- Building Engineering
- Civil Engineering
- Computer Engineering
- Computer Science
- Electrical Engineering
- Industrial Engineering
- Mechanical Engineering
- Software Engineering

The academic content is identical to that of the regular programs with the addition of a four-month work term. However, in order to enrol in the C.Edge option in the Gina Cody School of Engineering and Computer Science, students must satisfy the requirements set by the individual department.

Students may have the C.Edge option recorded on their official transcript and student record, provided they successfully complete the Reflective Learning course associated with this work term.

C.Edge work terms will be coded as ENGR 107, 207, and 307, and the associated Reflective Learning courses will be coded as ENGR 108, 208, and 308 respectively.

For a full description of the C.Edge format and requirements, please refer to §24 of this Calendar.

Accelerated Career Experience Option

A limited number of students in the BCompSc and BEng degrees are permitted to supplement their studies with the Accelerated Career Experience option, which is offered in the following programs:

- Aerospace Engineering
- Building Engineering
- Civil Engineering
- Computer Engineering
- Computer Science
- Electrical Engineering
- Industrial Engineering
- Mechanical Engineering
- Software Engineering

The academic content is identical to that of the regular programs with the addition of one 12- or 16-month work term. Students are registered in their work experience courses (ACCE 100, 200, 300, 400). However, in order to continue their studies in the Accelerated Career Experience option in the Gina Cody School of Engineering and Computer Science, students must satisfy the following conditions:

1. must be in acceptable standing and maintain a cumulative grade point average (CGPA)* of at least 2.70 in their program;
2. be assigned a grade of pass for each of the work experience courses. Under certain conditions, students may be placed on co-op probation status;
3. remain in their designated work-study sequence. Any deviations must have prior approval by the director of the Institute for Co-operative Education in consultation with the appropriate co-op academic director;
4. must have completed at least 48 credits in their degree/program before applying;
5. must have at least 15 credits remaining after the completion of the Accelerated Career Experience work term.

For a full description of the Accelerated Career Experience format and requirements, please refer to §24 of this Calendar.

*The CGPA is calculated in the manner described in §16.3.10.

71.20.9 Certificate in Science and Technology

The Certificate in Science and Technology is a non-degree program that caters to students who wish to prepare for admission to a degree program in engineering or computer science. It is not intended for students who wish to prepare for admission to a science program.

The certificate requires the successful completion of 30 credits at Concordia as outlined below. A GPA of 2.00 must be maintained to remain in the certificate program.

Students enrolled in the certificate program may request a transfer into a degree program in the Gina Cody School of Engineering and Computer Science after the completion of at least 18 credits with a minimum CGPA of 2.50 in the certificate program. The grade in each course must be C- or better for the course to count towards the program.

For advising assistance, students should contact Student Academic Services at 514-848-2424, ext. 3055 or 3057.

Admission Requirements

Students who have a DEC or satisfy out-of-province (see §13.3.2) or international (see §13.3.6) admissions criteria may be considered for admission, based on their academic profile, age, experience and potential.

Independent students wishing to enter the certificate program must be in good standing. Students may transfer into the certificate program up to 12 credits earned at Concordia, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the program. The credits for courses taken at another institution cannot be transferred into the certificate program. Programs for individual students can be designed in consultation with an academic advisor at Student Academic Services.

Structure of the Certificate

The Certificate in Science and Technology consists of the core and elective courses as shown below. The minimum length of the certificate is 30 credits.

In the event that a student is awarded an exemption from a core course, it will be necessary for the student to replace that course with another from the elective list.

Core Courses (9 credits)		<i>Credits</i>
MATH 203	Differential and Integral Calculus I	3.00
MATH 204	Vectors and Matrices	3.00
MATH 205	Differential and Integral Calculus II	3.00
		<hr/> 9.00

Electives

Students must complete a minimum of 21 elective credits. Courses must be chosen from the Basic Science and the Engineering and Computer Science courses listed below:

Basic Science Courses		<i>Credits</i>
CHEM 205	General Chemistry I	3.00
PHYS 204	Mechanics	3.00
PHYS 205	Electricity and Magnetism	3.00
Engineering and Computer Science Courses		<i>Credits</i>
BCEE 231	Structured Programming and Applications for Building and Civil Engineers	3.00
BCEE 371	Surveying	3.00
BLDG 212*	Building Engineering Drawing and Introduction to Design	3.00
CIVI 212*	Civil Engineering Drawing and Introduction to Design	3.00
CIVI 231	Geology for Civil Engineers	3.00
COEN 212	Digital Systems Design I	3.50
COEN 231*	Introduction to Discrete Mathematics	3.00
COEN 243*	Programming Methodology I	3.50
COEN 244	Programming Methodology II	3.00
COEN 311	Computer Organization and Software	3.50
COMP 228*	System Hardware	3.00
COMP 232*	Mathematics for Computer Science	3.00
COMP 233	Probability and Statistics for Computer Science	3.00
COMP 248*	Object-Oriented Programming I	3.50
COMP 249	Object-Oriented Programming II	3.50
ELEC 242	Continuous-Time Signals and Systems	3.00

ELEC 251	Fundamentals of Applied Electromagnetics	3.00
ELEC 273	Basic Circuit Analysis	3.50
ELEC 275	Principles of Electrical Engineering	3.75
ENCS 282	Technical Writing and Communication	3.00
ENGR 201	Professional Practice and Responsibility	1.50
ENGR 202	Sustainable Development and Environmental Stewardship	1.50
ENGR 213	Applied Ordinary Differential Equations	3.00
ENGR 233	Applied Advanced Calculus	3.00
ENGR 242	Statics	3.00
ENGR 243	Dynamics	3.00
ENGR 244	Mechanics of Materials	3.75
ENGR 245	Mechanical Analysis	3.00
ENGR 251	Thermodynamics I	3.00
ENGR 301	Engineering Management Principles and Economics	3.00
INDU 211	Introduction to Production and Manufacturing Systems	3.00
INDU 330	Engineering Management	3.00
MIAE 211	Mechanical Engineering Drawing	3.50
MIAE 215*	Programming for Mechanical and Industrial Engineers	3.50
MIAE 313	Machine Drawing and Design	3.50
SOEN 228*	System Hardware	4.00
SOEN 287	Web Programming	3.00

*Students cannot receive credits for both BLDG 212 and CIVI 212; COMP 228 and SOEN 228; COEN 231 and COMP 232; COEN 243 and COMP 248; COEN 243 and MECH 215; COMP 248 and MIAE 215.

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING

Section 71.30

Faculty

Chair

YOUSEF R. SHAYAN, PhD *Concordia University, PEng; Professor*

Associate Chair, Undergraduate Studies

SHAHIN HASHTRUDI ZAD, PhD *University of Toronto, PEng; Associate Professor*

Associate Chair, Graduate Studies

RASTKO R. SELMIC, PhD *University of Texas at Arlington, PEng; Professor*

Professors

ANJALI AGARWAL, PhD *Concordia University, PEng*

AMIR G. AGHDAM, PhD *University of Toronto, PEng; Provost's Distinction*

M. OMAIR AHMAD, PhD *Concordia University, PEng; Provost's Distinction*

OTMANE AIT MOHAMED, PhD *Université Henri Poincaré, Nancy I, ing.*

MARIA AMER, PhD *Université du Québec, ing.*

HABIB BENALI, PhD *Rennes 1 University, Provost's Distinction*

JUN CAI, PhD *University of Waterloo, PEng*

GLENN COWAN, PhD *Columbia University, PEng*

WALAA HAMOUDA, PhD *Queen's University, PEng*

ABDELWAHAB HAMOU-LHADJ, PhD *University of Ottawa, ing.*

M. ZAHANGIR KABIR, PhD *University of Saskatchewan, PEng*

MOJTABA KAHRIKI, PhD *Concordia University, ing.*

FERHAT KHENDEK, PhD *Université de Montréal, ing.*

KHASHAYAR KHORASANI, PhD *University of Illinois, PEng*

AHMED A. KISHK, PhD *University of Manitoba; Provost's Distinction*

LUIZ A. LOPES, PhD *McGill University, ing.*

WILLIAM E. LYNCH, PhD *Princeton University, ing.*

MUSTAFA K. MEHMET ALI, PhD *Carleton University, PEng*

ROBERT PAKNYS, PhD *Ohio State University, ing.*

PRAGASEN PILLAY, PhD *Virginia Polytechnic Institute and State University, PEng; Provost's Distinction*

RABIN RAUT, PhD *Concordia University, PEng*

LUIS RODRIGUES, PhD *Stanford University, PEng*

ABDEL R. SEBAK, PhD *University of Manitoba, PEng; Provost's Distinction*

MOHAMMED REZA SOLEYMANI, PhD *Concordia University, ing.*

SOFIÈNE TAHR, PhD *University of Karlsruhe, ing.*

CHRISTOPHER W. TRUEMAN, PhD *McGill University, ing.*

CHUNYAN WANG, PhD *Université Paris Sud, ing.*

JOHN X. ZHANG, PhD *Technical University of Denmark, PEng*

WEIPING ZHU, PhD *Southeast University, PEng*

Research Professor

M.N.S. SWAMY, PhD *University of Saskatchewan, ing.; Provost's Distinction*

Distinguished Professors Emeriti

ASIM J. AL-KHALILY, PhD *University of Strathclyde, PEng*

EUGENE I. PLOTKIN, PhD *Electrical Engineering Institute of Communication Engineering, St. Petersburg*

VENKATANARAYANA RAMACHANDRAN, PhD *Indian Institute of Science, PEng; Provost's Distinction*

Professors Emeriti

AHMED K. ELHAKEM, PhD *Southern Methodist University, PEng*

J. CHARLES GIGUÈRE, PhD *Nova Scotia Technical College*

KRISHNAYAN THULASIRAMAN, PhD *Indian Institute of Technology, Madras*

Associate Professors

NAWWAF N. KHARMA, PhD *University of London, PEng*

SEBASTIEN LE BEUX, PhD *Lille University of Science and Technology*

YAN LIU, PhD *University of Sydney, PEng*

DONGYU QIU, PhD *Purdue University*, PEng
AKSHAY KUMAR RATHORE, PhD *University of Victoria*
HASSAN RIVAZ, PhD *Johns Hopkins University*, PEng
KRZYSZTOF SKONIECZNY, PhD *Carnegie Mellon University*
POUYA VALIZADEH, PhD *University of Michigan*, PEng

Assistant Professors

RODOLFO W. L. COUTINHO, PhD *University of Ottawa/Federal University of Minas Gerais*
CHUNYAN LAI, PhD *University of Windsor*
STEVE SHIH, PhD *University of Toronto*, PEng

Lecturer

BAHAREH GOODARZI, PhD *Concordia University*

Affiliate Professors

SAIF ALZAHIR, PhD *University of Pittsburgh*
AMIR ASIF, PhD *Carnegie Mellon University*, PEng
ALI GHRAYEB, PhD *University of Arizona*
MARIA TOEROE, PhD *Technical University of Budapest*
YEGUI XIAO, PhD *Hiroshima University*

Affiliate Associate Professors

ANADER BENYAMIN-SEYYAR, PhD *Concordia University*
KE-LIN DU, PhD *Huazhong University of Science and Technology*
PAUL MARTINEAU, PhD *McGill University*
NADER MESKIN, PhD *Concordia University*
KAMRAN SAYRAFIAN, PhD *University of Maryland, College Park*
DONGYA SHEN, MA *University of Electronic Science and Technology of China*

Affiliate Assistant Professors

FARZANEH ABDOLLAHI, PhD *Concordia University*
ABDELMOHSEN ALI, PhD *Concordia University*
MOHAMED AYMAN SAIED, PhD *Université de Montréal*
STEPHANE BLOUIN, PhD *Queen's University*
RUPERT BROOKS, PhD *McGill University*
MEHDI DADGARPOUR, PhD *Université du Québec*
KEJIA DING, PhD *Concordia University*
GUODONG FENG, PhD *Sun Yat-sen University*
AMJAD GAWANMEH, PhD *Concordia University*
OSMAN HASAN, PhD *Concordia University*
JOHN KARIGIANNIS, PhD *National Technical University of Athens*
NAJMEH KHALILI-MAHANI, PhD *McGill University*
IMAN MOAZZEN, PhD *University of Victoria*
JULES MOUALEU, PhD *University of KwaZulu-Natal*
ESMAEIL NADERI, PhD *Concordia University*
MOHAMED AYMEN SAIED, PhD *Université de Montréal*
SHOKRY SHAMSELDIN, PhD *Concordia University*
BOWEI ZHANG, PhD *Concordia University*

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus
Engineering, Computer Science and Visual Arts Complex, Room: EV 005.139
514-848-2424, ext. 3100

Department Objectives

The Department of Electrical and Computer Engineering offers three distinct undergraduate programs: BEng in Electrical Engineering, BEng in Computer Engineering, and BEng in Aerospace Engineering. Electrical Engineering is concerned primarily with energy and information, their conversion and transmission in the most efficient and reliable manner. This vast field of endeavour includes many specialties and electrical engineers may be involved in one or more of these throughout their careers. A partial list includes electronics, integrated circuit design, very large scale integrated

(VLSI) circuit design, layout and testing, controls, robotics, system simulation, telecommunications, signal processing, computer hardware design, software design, power devices, power and control systems, electromechanical systems, micro electromechanical devices, electromagnetics, antennas, waveguides, lasers, and optoelectronics.

Computer Engineering is the driving force of the information revolution and its transformation of society. Over the course of their careers, computer engineers will be called upon to meet a number of challenges, most of which cannot be imagined today. A partial list of current specialties includes computer architecture, digital electronics, digital circuits, very large scale integrated (VLSI) circuit design, layout and testing, digital circuit testing and reliability, software systems engineering, embedded systems, digital communication and computer networks.

The Aerospace Engineering program is offered jointly with the Department of Mechanical, Industrial and Aerospace Engineering. It is concerned with the engineering science that governs the design and construction of aircraft and spacecraft. This includes the mechanisms behind flight and propulsion in the atmosphere and space, including aerodynamics, lift and drag, as well as the design and control of aircrafts. Aerospace systems rely significantly on electrical and computer engineering content, including topics such as avionic navigation systems, communication networks, and flight control systems. More details about the Aerospace Engineering program can be found in §71.55.

The four-year programs consist of the Engineering Core, taken by all Engineering students, program cores and electives. The Electrical Engineering Core provides a solid introduction to all aspects of the discipline, to programming methodology and to the design of large software systems. Technical electives are scheduled to enable students to register for sets of related technical courses. Current sets of electives include: Communications and Signal Processing, Electronics and VLSI, Power, Control Systems and Avionics, Waves and Electromagnetics, Computer Systems, and Biological and Biomedical Engineering. The Computer Engineering Core provides a thorough grounding in all aspects of computer hardware and software. Technical electives allow students to acquire further knowledge in various aspects of hardware or software. The Aerospace Engineering Core provides a solid introduction to Flight and Aerospace Systems, Modelling and Control Systems, Mechanics of Materials, Thermodynamics, and Fluid Mechanics. Technical electives allow students to gain more knowledge in a variety of topics related to flight control and navigation systems. A mandatory final-year design project gives students in all three programs the opportunity to apply the knowledge they have acquired to the design and testing of a working prototype.

Nine Quebec universities have joined together with Hydro-Québec to create the Institute for Electrical Power Engineering whose primary mission is to meet the anticipated shortfall in this area. Students accepted by the Institute are expected to complete six courses offered by participating universities. Some of these courses are offered in English and others in French. Students register for courses at their home universities.

71.30.1 Course Requirements (BEng in Electrical Engineering)

The program in Electrical Engineering consists of the Engineering Core, the Electrical Engineering Core, and Electives. The minimum length of the program is 120 credits.

Students in the Electrical Engineering program are required to complete at least one work term administered by either the CIADI (§71.10.9) or co-op (§71.10.8) offices. Only work terms undertaken after successfully completing 75 credits in the Electrical Engineering program, including ELEC 390, would satisfy this requirement.

In order to fulfill the work term, students must successfully complete one of the courses managed through CIADI or the Institute for Co-operative Education.

It should be noted that ultimately it is the responsibility of the student to find an approved work-term placement.

For information on co-op fees, see concordia.ca/academics/co-op/students/fees.

Engineering Core (30.5 credits)

See §71.20.5.

Electrical Engineering Core		Credits
COEN 212	Digital Systems Design I	3.50
COEN 231	Introduction to Discrete Mathematics	3.00
COEN 243	Programming Methodology I	3.50
COEN 244	Programming Methodology II	3.00
COEN 311	Computer Organization and Software	3.50
COEN 313	Digital Systems Design II	3.50
COEN 352	Data Structures and Algorithms	3.00
ELEC 242	Continuous-Time Signals and Systems	3.00
ELEC 251	Fundamentals of Applied Electromagnetics	3.00
ELEC 311	Electronics I	3.50
ELEC 312	Electronics II	3.50
ELEC 321	Introduction to Semiconductor Materials and Devices	3.50
ELEC 331	Fundamentals of Electrical Power Engineering	3.50
ELEC 342	Discrete-Time Signals and Systems	3.50
ELEC 351	Electromagnetic Waves and Guiding Structures	3.00
ELEC 366	Telecommunication Networks	3.50
ELEC 367	Introduction to Digital Communications	3.50

ELEC 372	Fundamentals of Control Systems	3.50
ELEC 390	Electrical Engineering Product Design Project	3.00
ELEC 490	Capstone Electrical Engineering Design Project*	4.00
ENGR 290	Introductory Engineering Team Design Project	3.00
		70.00

*Note: Students may replace ELEC 490 with ENGR 490 if they are interested in a multidisciplinary project that requires collaboration with students from other engineering departments. In order for students to register in ENGR 490, their projects must be approved by the ENGR 490 Design Committee before the start of the fall term.

Electrical Engineering Electives

Students must complete at least 19.5 credits from the Electrical Engineering Electives list below. Courses are listed in groups to facilitate course selection. With adequate academic justification and with permission of the Department, students may take one technical elective course from the Computer Engineering Electives list.

A. Telecommunication Networks and Signal Processing Credits

COEN 446	Internet of Things	3.00
COEN 447	Software-Defined Networking	3.00
ELEC 442	Digital Signal Processing	3.00
ELEC 464	Wireless Communications	3.00
ELEC 465	Networks Security and Management	3.50
ELEC 466	Introduction to Optical Communication Systems	3.50
ELEC 470	Broadcast Signal Transmission	3.00
ELEC 472	Advanced Telecommunication Networks	3.50

B. Microdevices, Electronics and VLSI Credits

COEN 415	Digital Electronics	3.50
COEN 451	VLSI Circuit Design	4.00
ELEC 413	Mixed-Signal VLSI for Communication Systems	4.00
ELEC 421	Solid State Devices	3.50
ELEC 422	Design of Integrated Circuit Components	3.50
ELEC 423	Introduction to Analog VLSI	4.00
ELEC 424	VLSI Process Technology	3.50
ELEC 425	Optical Devices for High-Speed Communications	3.50
ELEC 441	Modern Analog Filter Design	3.50

C. Power and Renewable Energy Systems Credits

ELEC 430	Electrical Power Equipment*	3.50
ELEC 431	Electrical Power Systems	3.50
ELEC 432	Control of Electrical Power Conversion Systems*	3.50
ELEC 433	Power Electronics	3.50
ELEC 434	Behaviour of Power Systems*	3.50
ELEC 435	Electromechanical Energy Conversion Systems	3.50
ELEC 436	Protection of Power Systems*	3.50
ELEC 437	Renewable Energy Systems	3.00
ELEC 438	Industrial Electrical Systems*	3.50
ELEC 439	Hybrid Electric Vehicle Power System Design and Control	3.00
ELEC 440	Controlled Electric Drives	3.50
ELEC 443	Electric Power Distribution Networks*	3.00
ELEC 446	Electrical Power Generation	3.00

*Note: ELEC 430, 432, 434, 436, 438 and 443 are usually offered in the French language.

D. Controls, Robotics and Avionics Credits

AERO 417	Standards, Regulations, and Certification	3.00
AERO 480	Flight Control Systems	3.50
AERO 482	Avionic Navigation Systems	3.00
AERO 483	Integration of Avionics Systems	3.00
COEN 422	Cyber-Physical Systems	3.00
ELEC 473	Autonomy for Mobile Robots	3.00

ELEC 481	Linear Systems	3.50
ELEC 482	System Optimization	3.50
ELEC 483	Real-Time Computer Control Systems	3.50
ENGR 472	Robot Manipulators	3.50
E. Waves and Electromagnetics		<i>Credits</i>
ELEC 453	Microwave Engineering	3.50
ELEC 455	Acoustics	3.00
ELEC 456	Antennas	3.50
ELEC 457	Design of Wireless RF Systems	3.00
ELEC 458	Techniques in Electromagnetic Compatibility	3.00
F. Computer Systems		<i>Credits</i>
COEN 316	Computer Architecture and Design	3.50
COEN 317	Microprocessor-Based Systems	3.50
COEN 320	Introduction to Real-Time Systems	3.00
COEN 346	Operating Systems	3.50
COEN 413	Hardware Functional Verification	3.00
COEN 421	Embedded Systems Design	4.00
COEN 424	Programming on the Cloud	3.00
COEN 448	Software Testing and Validation	3.50
SOEN 341	Software Process and Practices	3.00
G. Biological and Biomedical Engineering		<i>Credits</i>
COEN 432	Applied Evolutionary and Learning Algorithms	3.00
COEN 433	Biological Computing and Synthetic Biology	3.00
COEN 434	Microfluidic Devices for Synthetic Biology	3.00
ELEC 444	Medical Image Processing	3.00
ELEC 445	Biological Signal Processing	3.00
H. Other		<i>Credits</i>
ELEC 498	Topics in Electrical Engineering	3.00
ENGR 411	Special Technical Report	1.00

71.30.2 Course Requirements (BEng in Computer Engineering)

The program in Computer Engineering consists of the Engineering Core, the Computer Engineering Core, and one of three choices as set out below. The minimum length of the program is 120 credits.

Students in the Computer Engineering program are required to complete at least one work term administered by either the CIADI (§71.10.9) or co-op (§71.10.8) offices. Only work terms undertaken after successfully completing 75 credits in the Computer Engineering program, including COEN 390, would satisfy this requirement.

In order to fulfill the work term, students must successfully complete one of the courses managed through CIADI or the Institute for Co-operative Education.

It should be noted that ultimately it is the responsibility of the student to find an approved work-term placement.

For information on co-op fees, see concordia.ca/academics/co-op/students/fees.

Engineering Core: (30.5 credits)

See §71.20.5.

Computer Engineering Core		<i>Credits</i>
COEN 212	Digital Systems Design I	3.50
COEN 231	Introduction to Discrete Mathematics	3.00
COEN 243	Programming Methodology I	3.50
COEN 244	Programming Methodology II	3.00
COEN 311	Computer Organization and Software	3.50
COEN 313	Digital Systems Design II	3.50
COEN 316	Computer Architecture and Design	3.50
COEN 317	Microprocessor-Based Systems	3.50
COEN 320	Introduction to Real-Time Systems	3.00
COEN 346	Operating Systems	3.50

COEN 352	Data Structures and Algorithms	3.00
COEN 366	Communication Networks and Protocols	3.50
COEN 390	Computer Engineering Product Design Project	3.00
COEN 490	Capstone Computer Engineering Design Project*	4.00
ELEC 242	Continuous-Time Signals and Systems	3.00
ELEC 311	Electronics I	3.50
ELEC 342	Discrete-Time Signals and Systems	3.50
ELEC 372	Fundamentals of Control Systems	3.50
ENGR 290	Introductory Engineering Team Design Project	3.00
SOEN 341	Software Process and Practices	3.00
	Science Electives	6.00

If a student takes 6.5 credits of Science Electives, the additional 0.5 credits will be counted towards the credits in Computer Engineering Electives list.

72.50

*Note: Students may replace COEN 490 with ENGR 490 if they are interested in a multidisciplinary project that requires collaboration with students from other engineering departments. In order for students to register in ENGR 490, their projects must be approved by the ENGR 490 Design Committee before the start of the fall term.

Science Electives	Credits	
BIOL 206	Elementary Genetics	3.00
BIOL 261	Molecular and General Genetics	3.00
BIOL 266	Cell Biology	3.00
CHEM 217	Introductory Analytical Chemistry I	3.00
CHEM 221	Introductory Organic Chemistry I	3.00
ELEC 321	Introduction to Semiconductor Materials and Devices	3.50
MIAE 221	Materials Science	3.00
PHYS 252	Optics	3.00
PHYS 284	Introduction to Astronomy	3.00
PHYS 367	Modern Physics and Relativity	3.00
PHYS 443	Quantitative Human Systems Physiology	3.00
PHYS 445	Principles of Medical Imaging	3.00

Students may choose one of the following options:

- I. Biological and Biomedical Engineering (BME) Option
- II. Pervasive Computing Option

Otherwise, students must follow III.

I. Biological and Biomedical Engineering (BME) Option	Credits
Students must complete a minimum of 17 credits of electives from the Biological and Biomedical Engineering (BME) Option Electives and the Computer Engineering Electives lists subject to the following rules. At least 15 credits must be taken from the Biological and Biomedical Engineering Option Electives. At least two courses must be chosen from the following four courses: COEN 433, 434, ELEC 444, 445. Not more than one science course (BIOL or PHYS) may be taken.	17.00

17.00

Biological and Biomedical Engineering (BME) Option Electives	Credits	
BIOL 367	Molecular Biology	3.00
COEN 432	Applied Evolutionary and Learning Algorithms	3.00
COEN 433	Biological Computing and Synthetic Biology	3.00
COEN 434	Microfluidic Devices for Synthetic Biology	3.00
ELEC 442	Digital Signal Processing	3.00
ELEC 444	Medical Image Processing	3.00
ELEC 445	Biological Signal Processing	3.00
PHYS 260	Introductory Biophysics	3.00

II. Pervasive Computing Option	Credits
Students must complete a minimum of 17 credits of electives from the Pervasive Computing Option Electives and the Computer Engineering Electives lists subject to the following rules.	17.00
At least 15 credits must be taken from the Pervasive Computing Option Electives.	
At least two courses must be chosen from the following four courses: COEN 421, 422, 424, 446.	

17.00

Pervasive Computing Option Electives	Credits
COEN 421 Embedded Systems Design	4.00
COEN 422 Cyber-Physical Systems	3.00
COEN 424 Programming on the Cloud	3.00
COEN 446 Internet of Things	3.00
COEN 447 Software-Defined Networking	3.00
ELEC 367 Introduction to Digital Communications	3.50
ELEC 472 Advanced Telecommunication Networks	3.50
SOEN 321 Information Systems Security	3.00

III. For students NOT selecting an option:	Credits
General Stream	
Total number of Elective credits: At least 3 of these credits must be taken from the General Stream Electives list. The rest may be chosen from the Computer Engineering Electives list.	17.00

17.00

General Stream Electives	Credits
COEN 413 Hardware Functional Verification	3.00
COEN 448 Software Testing and Validation	3.50
SOEN 321 Information Systems Security	3.00

Computer Engineering Electives

Courses are listed in groups to facilitate course selection. With adequate academic justification and with permission of the Department, students may take one technical elective course from the Electrical Engineering Electives list.

A. Hardware/Electronics/VLSI	Credits
COEN 413 Hardware Functional Verification	3.00
COEN 415 Digital Electronics	3.50
COEN 451 VLSI Circuit Design	4.00
ELEC 312 Electronics II	3.50
ELEC 413 Mixed-Signal VLSI for Communication Systems	4.00
ELEC 423 Introduction to Analog VLSI	4.00

B. Software and System Design	Credits
COEN 421 Embedded Systems Design	4.00
COEN 422 Cyber-Physical Systems	3.00
COEN 432 Applied Evolutionary and Learning Algorithms	3.00
COEN 448 Software Testing and Validation	3.50
SOEN 321 Information Systems Security	3.00
SOEN 342 Software Requirements and Deployment	3.00
SOEN 343 Software Architecture and Design	3.00
SOEN 344 Advanced Software Architecture and Design	3.00
SOEN 357 User Interface Design	3.00
SOEN 448 Management of Evolving Systems	3.00

C. Biological and Biomedical Engineering		<i>Credits</i>
COEN 432	Applied Evolutionary and Learning Algorithms	3.00
COEN 433	Biological Computing and Synthetic Biology	3.00
COEN 434	Microfluidic Devices for Synthetic Biology	3.00
ELEC 444	Medical Image Processing	3.00
ELEC 445	Biological Signal Processing	3.00
D. Computer Science and Programming		<i>Credits</i>
COEN 424	Programming on the Cloud	3.00
COEN 432	Applied Evolutionary and Learning Algorithms	3.00
COMP 335	Introduction to Theoretical Computer Science	3.00
COMP 353	Databases	4.00
COMP 371	Computer Graphics	4.00
COMP 426	Multicore Programming	4.00
COMP 428	Parallel Programming	4.00
COMP 442	Compiler Design	4.00
COMP 451	Database Design	4.00
COMP 465	Design and Analysis of Algorithms	3.00
COMP 472	Artificial Intelligence	4.00
COMP 474	Intelligent Systems	4.00
E. Telecommunication Networks and Signal Processing		<i>Credits</i>
COEN 446	Internet of Things	3.00
COEN 447	Software-Defined Networking	3.00
ELEC 367	Introduction to Digital Communications	3.50
ELEC 442	Digital Signal Processing	3.00
ELEC 465	Networks Security and Management	3.50
ELEC 470	Broadcast Signal Transmission	3.00
ELEC 472	Advanced Telecommunication Networks	3.50
F. Controls, Robotics and Avionics		<i>Credits</i>
AERO 417	Standards, Regulations and Certification	3.00
AERO 480	Flight Control Systems	3.50
AERO 482	Avionic Navigation Systems	3.00
AERO 483	Integration of Avionics Systems	3.00
ELEC 473	Autonomy for Mobile Robots	3.00
ELEC 481	Linear Systems	3.50
ELEC 482	System Optimization	3.50
ELEC 483	Real-Time Computer Control Systems	3.50
ENGR 472	Robot Manipulators	3.50
G. Other		<i>Credits</i>
COEN 498	Topics in Computer Engineering	3.00
ENGR 411	Special Technical Report	1.00

DEPARTMENT OF MECHANICAL, INDUSTRIAL AND AEROSPACE ENGINEERING

Section 71.40

Faculty

Chair

MARTIN D. PUGH, PhD *University of Leeds*, PEng; Professor, Provost's Distinction

Associate Chair

MING YUAN CHEN, PhD *University of Manitoba*, APEGS; Professor

Professors

A.K. WAIZUDDIN AHMED, PhD *Concordia University*, PEng; Provost's Distinction

ALI AKGUNDUZ, PhD *University of Illinois at Chicago*, PEng

NADIA BHUIYAN, PhD *McGill University*, ing.

AKIF ASIL BULGAK, PhD *University of Wisconsin-Madison*, PEng

ZEZHONG CHEN, PhD *University of Victoria*, PEng

JAVAD DARGAHI, PhD *Caledonian University (U.K.)*, PEng

KUDRET DEMIRLI, PhD *University of Toronto*, PEng

ALI DOLATABADI, PhD *University of Toronto*, PEng; Provost's Distinction

ROBIN A.L. DREW, PhD *University of Newcastle upon Tyne*, ing.; Provost's Distinction

M. NABIL ESMAIL, PhD *Moscow State University*, ing.; Provost's Distinction

RAJAMOHAN GANESAN, PhD *Indian Institute of Science*, PEng

GERARD J. GOUW, PhD *Queen's University*, ing.

SUONG VAN HOA, PhD *University of Toronto*, ing.; Provost's Distinction

MEHDI HOJJATI, PhD *Concordia University*, PEng

LYES KADEM, PhD *Université d'Aix-Marseille II/Université Laval*, ing.

MAMOUN MEDRAJ, PhD *McGill University*, PEng

CHRISTIAN MOREAU, PhD *Université Laval*; Provost's Distinction

SIVAKUMAR R. NARAYANSWAMY, PhD *Nanyang Technological University*, PEng

HOI DICK NG, PhD *McGill University*, ing.; Provost's Distinction

MUTHUKUMARAN PACKIRISAMY, PhD *Concordia University*, PEng; Provost's Distinction

MARIUS PARASCHIVOIU, PhD *Massachusetts Institute of Technology*, ing.; Provost's Distinction

SUBHASH RAKHEJA, PhD *Concordia University*; Provost's Distinction

RAMIN SEDAGHATI, PhD *University of Victoria*, PEng; Provost's Distinction

ION STIARU, PhD *Polytechnic Institute of Bucharest*, PEng; Provost's Distinction

CHUN-YI SU, PhD *South China University of Technology*

GEORGIOS H. VATISTAS, PhD *Concordia University*; Provost's Distinction

ROLF WÜTHRICH, DSc *École Polytechnique Fédérale de Lausanne*, ing.

WENFANG XIE, PhD *Hong Kong Polytechnic University*, PEng

YOUMIN ZHANG, PhD *Northwestern Polytechnical University*, PEng

Distinguished Professors Emeriti

RICHARD M.H. CHENG, PhD *University of Birmingham*

SUI LIN, Dring *University of Karlsruhe*

Professors Emeriti

RAMA B. BHAT, PhD *Indian Institute of Technology, Madras*, ing.; Provost's Distinction

WAHID S. GHALY, PhD *Massachusetts Institute of Technology*, ing.

VOJISLAV N. LATINOVIC, DEng *Concordia University*

Associate Professors

IVAN CONTRERAS, PhD *Technical University of Catalonia, Spain*

BRANDON W. GORDON, PhD *Massachusetts Institute of Technology*, APEGGA

AYHAN INCE, PhD *University of Waterloo*, PEng

MASOUMEH KAZEMI ZANJANI, PhD *Université Laval*, ing.

ONUR KUZGUNKAYA, PhD *University of Windsor*, PEng

JONATHAN LISCOUËT, PhD *Université de Toulouse (INSA)*

SUSAN LISCOUËT-HANKE, PhD *Université de Toulouse (INSA)*, ing.

DARIA TEREKHOV, PhD *University of Toronto*

BRIAN VERMEIRE, PhD *McGill University*, PEng

Associate Professors Emeriti
HENRY HONG, PhD *Concordia University, ing.*
RAFIK A. NEEMEH, PhD *McGill University*

Assistant Professors
HOSSEIN HASHEMI DOULABI, PhD *École Polytechnique de Montréal, PEng*
IDA KARIMFAZLI, PhD *University of British Columbia*
MOJTABA KHEIRI, PhD *McGill University*
CHARLES BASENGA KIYANDA, PhD *University of Illinois at Urbana-Champaign, ing.*
TSZ-HO KWOK, PhD *Chinese University of Hong Kong*
FARJAD SHADMEHRI, PhD *Concordia University, PEng*
BEHROOZ YOUSEFZADEH, PhD *University of British Columbia*

Senior Lecturers
JOHN CHEUNG, PhD *Cranfield University, PEng*
ASHOK KAUSHAL, PhD *Concordia University, PEng*

Lecturers
CAROLE EL AYOUBI, PhD *Concordia University, ing.*
HANY GOMAA, PhD *Concordia University, PEng*
SORIN VOICULESCU, PhD *University of Angers*

Affiliate Professors
FARHAD AGHILI, PhD *McGill University*
ANIRBAN GHOSH, PhD *Jawaharlal Nehru University*
ROGERIO SOARES LIMA, PhD *State University of New York at Stony Brook*
PIERRE MARCOTTE, PhD *Virginia Polytechnic Institute and State University*
JOHN MARIS, PhD *Embry-Riddle Aeronautical University, ing.*

Affiliate Associate Professors
ALI BONAKDAR, PhD *Concordia University*
YONG CHEN, PhD *Nanjing University of Aeronautics and Astronautics*

Affiliate Assistant Professor
JAYAN OZHI KANDATHIL, PhD *Concordia University*

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus
Engineering, Computer Science and Visual Arts Complex, Room: EV 004.139
514-848-2424, ext. 3125

Department Objectives

The Department of Mechanical, Industrial and Aerospace Engineering offers three distinct undergraduate programs: BEng in **Mechanical Engineering**, BEng in **Industrial Engineering** and BEng in **Aerospace Engineering**.
Mechanical Engineering is concerned with all forms of power generation (hydro-electric, steam, internal combustion, nuclear, jet rocket, and fuel cells), the design of mechanisms and machines, transportation systems, controls and automation, vibration analysis, environmental control (heating, ventilation, and refrigeration), materials handling, and precision measurement. The Mechanical Engineering curriculum consists of a combination of core courses with a series of technical electives that allow students to obtain some specialization in a particular area of the field depending on their interests and expected future professional activity. Current groups of electives include: Aerospace, Design and Manufacturing, Systems and Mechatronics, Thermo-Fluids and Propulsion, Vehicle Systems and Stress Analysis.

Industrial Engineering is concerned with the design, organization, analysis, and integration of people and industrial systems components in order to achieve or enhance effectiveness. These components include whole machines, transportation and conveyance elements, physical plant, organizational frameworks, schedules, and budgets. The Industrial Engineering curriculum is therefore designed to give students the background needed to define and solve problems related to the conception, improvement, integration, and implementation of industrial systems.

The Aerospace Engineering program is offered jointly with the Department of Electrical and Computer Engineering. The detailed description of this program can be found in §71.55.

71.40.1 Course Requirements (BEng in Mechanical Engineering)

The program in Mechanical Engineering consists of the Engineering Core, the Mechanical Engineering Core, and elective credits as shown below. The minimum length of the program is 120 credits.

Engineering Core (27 credits)

See §71.20.5.

Mechanical Engineering Core		Credits
ENGR 242	Statics	3.00
ENGR 243	Dynamics	3.00
ENGR 244	Mechanics of Materials	3.75
ENGR 251	Thermodynamics I	3.00
ENGR 311	Transform Calculus and Partial Differential Equations	3.00
ENGR 361	Fluid Mechanics I	3.00
MECH 321	Properties and Failure of Materials	3.50
MECH 343	Theory of Machines	3.50
MECH 344	Machine Element Design	3.00
MECH 351	Thermodynamics II	3.50
MECH 352	Heat Transfer I	3.50
MECH 361	Fluid Mechanics II	3.50
MECH 368	Electronics for Mechanical Engineers	3.50
MECH 370	Modelling and Analysis of Dynamic Systems	3.50
MECH 371	Analysis and Design of Control Systems	3.75
MECH 375	Mechanical Vibrations	3.50
MECH 390	Mechanical Engineering Design Project	3.50
MECH 490	Capstone Mechanical Engineering Design Project*	4.00
MIAE 211	Mechanical Engineering Drawing	3.50
MIAE 215	Programming for Mechanical and Industrial Engineers	3.50
MIAE 221	Materials Science	3.00
MIAE 311	Manufacturing Processes	3.00
MIAE 312	Engineering Design and Manufacturing Processes Lab	1.00
MIAE 313	Machine Drawing and Design	3.50
MIAE 380	Product Design and Development	3.00
		81.50

*Note: Students may replace MECH 490 with ENGR 490 if they are interested in a multidisciplinary project that requires collaboration with students from other engineering departments. In order for students to register in ENGR 490, their projects must be approved by the ENGR 490 Design Committee before the start of the fall term.

Electives

Students in the Mechanical Engineering program must complete at least 11.50 elective credits from the list of courses below. Courses are listed in groups to facilitate the selection of courses in a particular area of the field.

Aerospace		Credits
AERO 417	Standards, Regulations and Certification	3.00
AERO 446	Aerospace Vehicle Performance	3.00
AERO 455	Computational Fluid Dynamics for Aerospace Applications	3.75
AERO 462	Turbomachinery and Propulsion	3.00
AERO 464	Aerodynamics	3.00
AERO 465	Gas Turbine Design	3.50
AERO 480	Flight Control Systems	3.50
AERO 482	Avionic Navigation Systems	3.00
AERO 485	Introduction to Space Systems	3.00
AERO 486	Aircraft Stress Analysis	3.00
AERO 487	Design of Aircraft Structures	3.00
ENGR 411	Special Technical Report	1.00
ENGR 412	Honours Research Project	3.00
MECH 498	Topics in Mechanical Engineering	3.00

Design and Manufacturing		<i>Credits</i>
ENGR 411	Special Technical Report	1.00
ENGR 412	Honours Research Project	3.00
INDU 372	Quality Control and Reliability	3.00
INDU 410	Safety Engineering	3.00
INDU 411	Computer Integrated Manufacturing	3.50
MECH 412	Computer-Aided Mechanical Design	3.50
MECH 414	Computer Numerically Controlled Machining	3.50
MECH 421	Mechanical Shaping of Metals and Plastics	3.50
MECH 422	Mechanical Behaviour of Polymer Composite Materials	3.00
MECH 423	Casting, Welding, Heat Treating, and Non-Destructive Testing	3.50
MECH 424	MEMS – Design and Fabrication	3.50
MECH 425	Manufacturing of Composites	3.50
MECH 468	Wind Turbine Engineering	3.00
MECH 476	Generative Design and Manufacturing in Engineering	3.00
MECH 498	Topics in Mechanical Engineering	3.00
Systems and Mechatronics		<i>Credits</i>
AERO 480	Flight Control Systems	3.50
AERO 482	Avionic Navigation Systems	3.00
ENGR 411	Special Technical Report	1.00
ENGR 412	Honours Research Project	3.00
MECH 411	Instrumentation and Measurements	3.50
MECH 415	Advanced Programming for Mechanical and Industrial Engineers	3.00
MECH 463	Fluid Power Control	3.50
MECH 471	Microcontrollers for Mechatronics	3.50
MECH 472	Mechatronics and Automation	3.50
MECH 473	Control System Design	3.50
MECH 474	Mechatronics	3.75
MECH 498	Topics in Mechanical Engineering	3.00
Thermo-Fluids and Propulsion		<i>Credits</i>
AERO 455	Computational Fluid Dynamics for Aerospace Applications	3.75
AERO 462	Turbomachinery and Propulsion	3.00
AERO 465	Gas Turbine Design	3.50
ENGR 411	Special Technical Report	1.00
ENGR 412	Honours Research Project	3.00
MECH 411	Instrumentation and Measurements	3.50
MECH 415	Advanced Programming for Mechanical and Industrial Engineers	3.00
MECH 452	Heat Transfer II	3.50
MECH 453	Heating, Ventilation and Air Conditioning Systems	3.00
MECH 461	Gas Dynamics	3.50
MECH 463	Fluid Power Control	3.50
MECH 468	Wind Turbine Engineering	3.00
MECH 498	Topics in Mechanical Engineering	3.00
Vehicle Systems		<i>Credits</i>
ENGR 411	Special Technical Report	1.00
ENGR 412	Honours Research Project	3.00
MECH 411	Instrumentation and Measurements	3.50
MECH 415	Advanced Programming for Mechanical and Industrial Engineers	3.00
MECH 444	Guided Vehicle Systems	3.00
MECH 447	Fundamentals of Vehicle System Design	3.00
MECH 454	Vehicular Internal Combustion Engines	3.00
MECH 473	Control System Design	3.50
MECH 498	Topics in Mechanical Engineering	3.00
Stress Analysis		<i>Credits</i>
AERO 431	Principles of Aeroelasticity	3.00
AERO 486	Aircraft Stress Analysis	3.00

ENGR 411	Special Technical Report	1.00
ENGR 412	Honours Research Project	3.00
MECH 411	Instrumentation and Measurements	3.50
MECH 412	Computer-Aided Mechanical Design	3.50
MECH 415	Advanced Programming for Mechanical and Industrial Engineers	3.00
MECH 422	Mechanical Behaviour of Polymer Composite Materials	3.00
MECH 426	Stress and Failure Analysis of Machinery	3.00
MECH 460	Finite Element Analysis	3.75
MECH 498	Topics in Mechanical Engineering	3.00

71.40.2 Course Requirements (BEng in Industrial Engineering)

The program in Industrial Engineering consists of the Engineering Core, the Industrial Engineering Core, and elective credits as shown below. Students must select one course from the list of Basic and Natural Science courses as part of the Industrial Engineering Core courses. The minimum length of the program is 120 credits.

Engineering Core (27 credits)

See §71.20.5.

Industrial Engineering Core		Credits
ENGR 245	Mechanical Analysis	3.00
ENGR 251	Thermodynamics I	3.00
ENGR 311	Transform Calculus and Partial Differential Equations	3.00
INDU 211	Introduction to Production and Manufacturing Systems	3.00
INDU 311	Simulation of Industrial Systems	3.50
INDU 320	Production Engineering	3.00
INDU 321	Lean Manufacturing	3.00
INDU 323	Operations Research I	3.50
INDU 324	Operations Research II	3.50
INDU 330	Engineering Management	3.00
INDU 342	Logistics Network Models	3.00
INDU 371	Stochastic Models in Industrial Engineering	3.00
INDU 372	Quality Control and Reliability	3.00
INDU 411	Computer Integrated Manufacturing	3.50
INDU 412	Human Factors Engineering	3.50
INDU 421	Facilities Design and Material Handling Systems	3.50
INDU 423	Inventory Control	3.50
INDU 490	Capstone Industrial Engineering Design Project*	4.00
MIAE 211	Mechanical Engineering Drawing	3.50
MIAE 215	Programming for Mechanical and Industrial Engineers	3.50
MIAE 221	Materials Science	3.00
MIAE 311	Manufacturing Processes	3.00
MIAE 312	Engineering Design and Manufacturing Processes Lab	1.00
MIAE 313	Machine Drawing and Design	3.50
MIAE 380	Product Design and Development	3.00
One Basic and Natural Science course from the list below.		3.00
		82.00

*Note: Students may replace INDU 490 with ENGR 490 if they are interested in a multidisciplinary project that requires collaboration with students from other engineering departments. In order for students to register in ENGR 490, their projects must be approved by the ENGR 490 Design Committee before the start of the fall term.

Basic and Natural Science Courses

Students must complete one course from the following list:

Basic and Natural Science Courses		Credits
BIOL 206	Elementary Genetics	3.00
BIOL 261	Molecular and General Genetics	3.00
CHEM 217	Introductory Analytical Chemistry I	3.00
CHEM 221	Introductory Organic Chemistry I	3.00
CIVI 231	Geology for Civil Engineers	3.00
GEOL 206	Earthquakes, Volcanoes, and Plate Tectonics	3.00

GEOL 208	The Earth, Moon and the Planets	3.00
PHYS 252	Optics	3.00
PHYS 260	Introductory Biophysics	3.00
PHYS 273	Energy and Environment	3.00
PHYS 284	Introduction to Astronomy	3.00
PHYS 385	Astrophysics	3.00

Electives

Students must complete a minimum of 11 credits from the following courses, including at least three INDU courses. With permission of the Department, students may take one technical elective course from another program or Faculty.

INDU Courses

Students must take at least three INDU courses from the following list:

INDU 410	Safety Engineering	3.00
INDU 431	Quantitative Methods in Health-care Systems	3.00
INDU 441	Introduction to Six Sigma	3.00
INDU 466	Decision Models in Service Sector	3.00
INDU 475	Advanced Concepts in Quality Improvement	3.00
INDU 480	Cases in Industrial Engineering	3.00
INDU 498	Topics in Industrial Engineering	3.00

Other Elective Courses

Students may take no more than one course from the following list:

		<i>Credits</i>
BSTA 478	Data Mining Techniques	3.00
BTM 430	Enterprise Resource Planning and Information Technology Integration	3.00
BTM 480	Project Management	3.00
ENGR 361	Fluid Mechanics I	3.00
ENGR 411	Special Technical Report	1.00
ENGR 412	Honours Research Project	3.00
MANA 300	Entrepreneurship: Launching Your Business	3.00
MECH 321	Properties and Failure of Materials	3.50
MECH 370	Modelling and Analysis of Dynamic Systems	3.50
MECH 412	Computer-Aided Mechanical Design	3.50
MECH 415	Advanced Programming for Mechanical and Industrial Engineers	3.00
MECH 421	Mechanical Shaping of Metals and Plastics	3.50
MECH 423	Casting, Welding, Heat Treating and Non-Destructive Testing	3.50
MECH 425	Manufacturing of Composites	3.50

DEPARTMENT OF BUILDING, CIVIL AND ENVIRONMENTAL ENGINEERING

Section 71.50

Faculty

Chair

ASHUTOSH BAGCHI, PhD *Carleton University, PEng; Professor*

Associate Chair

HUA GE, PhD *Concordia University, APEG (B.C.); Associate Professor*

Professors

HASHEM AKBARI, PhD *University of California, Berkeley*

ANDREAS K. ATHENITIS, PhD *University of Waterloo, ing.; Provost's Distinction*

ZHI CHEN, PhD *University of Regina, APEGS*

URSULA EICKER, PhD *Heriot Watt University*

MARIA ELEKTOROWICZ, PhD *Warsaw Technical University, ing.; Provost's Distinction*

KHALED GALAL, PhD *McMaster University, PEng*

KINH H. HA, DEng *Sir George Williams University, ing.*

FARIBORZ HAGHIGHAT, PhD *University of Waterloo, PEng; Provost's Distinction*

ADEL M. HANNA, PhD *Technical University of Nova Scotia, ing.; Provost's Distinction*

SAMUEL LI, PhD *Norwegian Institute of Technology, APEG (B.C.)*

OSAMA MOSELHI, PhD *Concordia University, ing.; Provost's Distinction*

CATHERINE MULLIGAN, PhD *McGill University, ing.; Provost's Distinction*

MICHELLE NOKKEN, PhD *University of Toronto, PEng; Provost's Distinction*

THEODORE STATHOPOULOS, PhD *University of Western Ontario, ing.; Provost's Distinction*

MOHAMMED ZAHEERUDDIN, PhD *University of Alberta, PEng*

RADU G. ZMEUREANU, PhD *Concordia University, ing.*

Distinguished Professors Emeriti

DOREL FELDMAN, PhD *University of Iasi*

RICHARD W. GUY, PhD *University of Liverpool, PEng*

OSCAR A. PEKAU, PhD *University of Waterloo, ing.; Provost's Distinction*

AMRUTHUR S. RAMAMURTHY, PhD *Purdue University, ing.; Provost's Distinction*

Professors Emeriti

SABAH TOMA ALKASS, PhD *Loughborough University, PEng; Provost's Distinction*

BALA ASHTAKALA, PhD *University of Waterloo*

HORMOZ B. POOROOSHASB, PhD *University of Cambridge*

Associate Professors

CIPRIAN ALECSANDRU, PhD *Louisiana State University, PEng*

LUIS AMADOR, PhD *University of New Brunswick, PEng*

ANJAN BHOWMICK, PhD *University of Alberta, APPEGA*

LAN LIN, PhD *University of Ottawa*

FUZHAN NASIRI, PhD *University of Regina, APEGS*

ALI NAZEMI, PhD *University of Birmingham, APEGS*

MD. SAIFUR RAHAMAN, PhD *University of British Columbia*

LUCIA TIRCA, PhD *Technical University of Civil Engineering, Bucharest, ing.*

LIANGZHU WANG, PhD *Purdue University*

ATTILA M. ZSAKI, PhD *University of Toronto, PEng*

Assistant Professors

CHUNJIANG AN, PhD *University of Regina, APEGS*

REBECCA DZIEDZIC, PhD *University of Toronto*

EMRE ERKMEN, PhD *University of Ottawa, PEng*

GHAZANFARAH (FARAH) HAFEEZ, PhD *University of Ottawa*

SANG HYEOK HAN, PhD *University of Alberta*

BRUNO LEE, PhD *Eindhoven University of Technology, PEng*

JOONHEE LEE, PhD *University of Nebraska*

BIAO LI, PhD *University of Calgary*

MAZDAK NIK-BAKHT, PhD *University of Toronto*, PEng
MOHAMED OUF, PhD *University of Manitoba*, PEng
AHMED SOLIMAN, PhD *Western University*, PEng

Senior Lecturer
JASSIM HASSAN, PhD *University of Calgary*

Lecturer
SHAHIN KARIMIDORABATI, PhD *University of Waterloo*

Affiliate Professors
MICHAEL LACASSE, PhD *Concordia University*
KENNETH LEE, PhD *University of Toronto*
MOHAMED MARZOUK, PhD *Concordia University*

Affiliate Associate Professors
ALI BAHLOUL, PhD *Université du Havre*
JOSÉ AGUSTIN CANDANEDO, PhD *Concordia University*
LALEH YERUSHALMI, PhD *McGill University*
ZHENHUA ZHU, PhD *Georgia Institute of Technology*

Affiliate Assistant Professors
KATHERINE D'AVIGNON, PhD *École Polytechnique de Montréal*
SHAMEEN JAUFFUR, PhD *McGill University*
FERESHTEH MAFAKHERI, PhD *HEC Montréal, Université de Montréal*

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus
Engineering, Computer Science and Visual Arts Complex, Room: EV 006.139
514-848-2424, ext. 3200
514-848-2424, ext. 7800

Objectives

Building Engineering, as a discipline, encompasses the body of knowledge which pertains to all phases in the life-cycle of a constructed facility, namely conception, planning, design, construction, operation, and disposal. Concordia has a unique undergraduate program leading to a BEng in Building Engineering designed to meet the needs of the construction industry for engineers familiar with the overall design of built facilities. In addition to the basic engineering sciences, the program emphasizes the fundamentals of building materials, structural analysis and design, building services (acoustical, heating, lighting, air conditioning), economics, and project management. The student also has available certain electives which will be of use in the design of various phases of a building. Students who complete all but one of their 200- and 300-level courses with a sufficiently high standing may apply through the Associate Dean, Student Academic Services to enter a combined program leading to the joint award of both a BEng and an MEng degree in Building Engineering. It is expected that those who aspire to leadership roles within the building industry will enter such a combined program. The combined program requires a further 12 months of full-time study, after which graduates will not only have obtained further grounding in the basics, but will also have specialized in one of four branches: Building Science, Building Environment, Building Structures, Construction Management. For details of the graduate component, refer to the School of Graduate Studies Calendar.

71.50.1 Course Requirements (BEng in Building Engineering)

The program in Building Engineering consists of the Engineering Core, the Building Engineering Core, and one of the options listed below. The normal length of the program is 119 credits.

Engineering Core for Building Engineering (29 credits)*

See §71.20.5. Students in BEng (Bldg) must successfully complete BLDG 482 instead of ENGR 392.

*Note: The Engineering Core credits for students in the Building Engineering program are reduced from 30.5 credits to 29 credits since Building Engineering students are not required to take ENGR 202 (1.5 credits) in their program.

Building Engineering Core		Credits
BCEE 231	Structured Programming and Applications for Building and Civil Engineers	3.00
BCEE 342	Structural Analysis I	3.00
BCEE 344	Structural Design of Steel and Wood Elements	3.00
BCEE 345	Structural Design of Reinforced Concrete Elements	3.00
BCEE 371*	Surveying	3.00
BCEE 451	Construction Engineering	3.00
BLDG 212	Building Engineering Drawing and Introduction to Design	3.00
BLDG 341	Building Engineering Systems	3.00
BLDG 365	Building Science	3.50
BLDG 371	Building Service Systems	3.50
BLDG 390	Building Engineering Design Project	3.50
BLDG 432	Geology and Soil Mechanics	3.50
BLDG 463	Building Envelope Design	3.00
BLDG 471	HVAC System Design	4.00
BLDG 476	Thermal Analysis of Buildings	3.00
BLDG 490	Capstone Building Engineering Design Project**	4.00
CIVI 321	Engineering Materials	3.75
ENGR 242	Statics	3.00
ENGR 243	Dynamics	3.00
ENGR 244	Mechanics of Materials	3.75
ENGR 251	Thermodynamics I	3.00
ENGR 311	Transform Calculus and Partial Differential Equations	3.00
ENGR 361	Fluid Mechanics I	3.00
		74.50

*Summer course to be taken before entering second year of BEng program.

**Note: Students may replace BLDG 490 with ENGR 490 if they are interested in a multidisciplinary project that requires collaboration with students from other engineering departments. In order for students to register in ENGR 490, their projects must be approved by the Department and the ENGR 490 Design Committee before the start of the fall term.

Option Course Requirements

Students must complete a minimum of 15.5 credits from one of the following options: A or B. Option A is designed for students interested in careers in building energy efficiency, HVAC systems and indoor environment. Option B is tailored for students wishing to pursue careers in building design, building structures, and construction engineering and management.

1. Option A — Building Energy and Environment

Students must complete a minimum of 15.5 credits from the Option Electives.

Option A – Electives		Credits
BLDG 366	Acoustics and Lighting	3.50
BLDG 465	Fire and Smoke Control in Buildings	3.00
BLDG 472	Building Energy Conservation Technologies	3.00
BLDG 473	Building Acoustics	3.00
BLDG 474	Building Illumination and Daylighting	3.00
BLDG 475	Indoor Air Quality	3.00
BLDG 477	Control Systems in Buildings	3.00
BLDG 479	Commissioning of HVAC Systems in Buildings	3.00
BLDG 483	Integrated Solar Systems: Design and Operation	3.00
BLDG 484	Diagnostics and Rehabilitation of Building Envelope	3.00
BLDG 498	Topics in Building Engineering	3.00
ENGR 411	Special Technical Report	1.00
ENGR 412	Honours Research Project	3.00

Note: Students from Option A may choose one course from Option B electives.

2. Option B — Building Structures and Construction

Students must complete a minimum of 15.5 credits from the Option Electives.

Option B – Electives		Credits
BCEE 343	Structural Analysis II	3.00
BCEE 455	Introduction to Structural Dynamics	3.00
BCEE 478	Project Management for Construction	3.00

BCEE 492	Construction Processes	3.00
BLDG 462	Modern Building Materials	3.00
BLDG 480	Building Information Modelling in Construction	3.00
BLDG 481	Fundamentals of Facility Management	3.00
BLDG 498	Topics in Building Engineering	3.00
CIVI 435	Foundation Design	3.00
CIVI 453	Design of Reinforced Concrete Structures	3.50
CIVI 454	Design of Steel Structures	3.50
ENGR 411	Special Technical Report	1.00
ENGR 412	Honours Research Project	3.00

Note: Students from Option B may choose one course from Option A electives.

Objectives

Civil Engineering is concerned with the creation of systems of constructed facilities which play an important role in sound economic growth of society. It is also concerned with the development of technologies to combat pollution of air, water, and soil. Civil engineers are responsible for the design of foundations and superstructures of common structures such as buildings, bridges, dams, tunnels, wharves, as well as many unusual structures such as rocket installations, containment vessels for nuclear reactors, supports for radio telescopes, frameworks for aircraft. In addition, they are concerned with the engineering aspects of water resources; transportation facilities; planning metropolitan areas, and conducting and managing their public facilities. In dealing with environmental problems, civil engineers perform vital functions such as monitoring and controlling air, water, and soil quality, assessing the impact of technological changes on the environment, and developing innovative waste reduction technologies.

71.50.2 Course Requirements (BEng in Civil Engineering)

The program in Civil Engineering consists of the Engineering Core, the Civil Engineering Core, and one of the options listed below. The normal length of the program is 119 credits.

Engineering Core (30.5 credits)

Civil Engineering Core	Credits
BCEE 231 Structured Programming and Applications for Building and Civil Engineers	3.00
BCEE 342 Structural Analysis I	3.00
BCEE 343 Structural Analysis II	3.00
BCEE 344 Structural Design of Steel and Wood Elements	3.00
BCEE 345 Structural Design of Reinforced Concrete Elements	3.00
BCEE 371* Surveying	3.00
BCEE 451 Construction Engineering	3.00
CIVI 212 Civil Engineering Drawing and Introduction to Design	3.00
CIVI 231 Geology for Civil Engineers	3.00
CIVI 321 Engineering Materials	3.75
CIVI 341 Civil Engineering Systems	3.00
CIVI 361 Introduction to Environmental Engineering	3.50
CIVI 372 Transportation Engineering	3.00
CIVI 381 Hydraulics	3.50
CIVI 390 Civil Engineering Design Project	3.50
CIVI 432 Soil Mechanics	3.50
CIVI 490 Capstone Civil Engineering Design Project**	4.00
ENGR 242 Statics	3.00
ENGR 243 Dynamics	3.00
ENGR 244 Mechanics of Materials	3.75
ENGR 251 Thermodynamics I	3.00
ENGR 311 Transform Calculus and Partial Differential Equations	3.00
ENGR 361 Fluid Mechanics I	3.00

73.50

*Summer course to be taken before entering second year of BEng program.

**Note: Students may replace CIVI 490 with ENGR 490 if they are interested in a multidisciplinary project that requires collaboration with students from other engineering departments. In order for students to register in ENGR 490, their projects must be approved by the Department and the ENGR 490 Design Committee before the start of the fall term.

Option Course Requirements

Students must complete a minimum of 15 credits from one of the following options: A, B or C. Option A is designed for students interested in careers in structural, geotechnical, and transportation engineering. Option B is tailored for students wishing to pursue careers in environmental engineering. Option C is designed for students interested in construction engineering and management.

	Option A – Civil Infrastructure	<i>Credits</i>
BCEE 452	Fundamentals of Finite Element Analysis of Structures	3.00
BCEE 455	Introduction to Structural Dynamics	3.00
CIVI 435	Foundation Design	3.00
CIVI 437*	Advanced Geotechnical Engineering	3.00
CIVI 453	Design of Reinforced Concrete Structures	3.50
CIVI 454	Design of Steel Structures	3.50
CIVI 471	Highway and Pavement Design	3.00
CIVI 474*	Transportation Planning and Design	3.00
CIVI 498	Topics in Civil Engineering	3.00
ENGR 411	Special Technical Report	1.00
ENGR 412	Honours Research Project	3.00

Note: Students may choose one course marked with * from Option B or C.

	Option B – Environmental	<i>Credits</i>
CIVI 382*	Water Resources Engineering	3.50
CIVI 464*	Environmental Impact Assessment	3.00
CIVI 465	Water Pollution and Control	3.50
CIVI 466	Engineering Aspects of Chemical and Biological Processes	3.00
CIVI 467*	Air Pollution and Emission Control	3.00
CIVI 468	Waste Management	3.00
CIVI 469*	Geo-Environmental Engineering	3.50
CIVI 483*	Hydrology	3.00
CIVI 484*	Hydraulic Engineering	3.50
CIVI 498	Topics in Civil Engineering	3.00
ENGR 411	Special Technical Report	1.00
ENGR 412	Honours Research Project	3.00

Note: Students may choose one course marked with * from Option A or C.

	Option C – Construction Engineering and Management (CEM)	<i>Credits</i>
BCEE 464	Project Cost Estimating	3.00
BCEE 465	Construction Planning and Control	3.00
BCEE 466	Simulations and Design of Construction Operations	3.00
BCEE 478*	Project Management for Construction	3.00
BCEE 491	Labour and Industrial Relations in Construction	3.00
BCEE 492	Construction Processes	3.00
BCEE 493	Legal Issues in Construction	3.00
CIVI 440*	Computer Applications in Civil Engineering Practice	3.00
CIVI 498	Topics in Civil Engineering	3.00
ENGR 411	Special Technical Report	1.00
ENGR 412	Honours Research Project	3.00

Note: Students may choose one course marked with * from Option A or B.

AEROSPACE ENGINEERING

Section 71.55

Faculty

Undergraduate Program Director

CAROLE EL AYOUBI, PhD Concordia University, ing.; Lecturer

The Aerospace Engineering program is offered jointly by the Department of Mechanical, Industrial and Aerospace Engineering and the Department of Electrical and Computer Engineering. For a complete list of faculty members, please consult the Departments' websites.

Location

Sir George Williams Campus

Engineering, Computer Science and Visual Arts Complex, Room: EV 004.139
514-848-2424, ext. 3125

Program Objectives

Aerospace Engineering is concerned with the engineering science governing flight and the design and construction of aircraft and spacecraft. This includes the mechanisms behind flight and propulsion in the atmosphere and space including aerodynamics, lift and drag as well as the design and control of aircraft such as airplanes, helicopters, unmanned aerial vehicles (UAVs) and rockets. The Aerospace Engineering curriculum comprises fundamental engineering courses followed by technical electives which allow students to obtain some specialization in a particular area of the field depending on their interests and expected future professional activity. Three options are available: Aerodynamics and Propulsion; Aerospace Structures and Materials; and Avionics and Aerospace Systems.

Aerodynamics and Propulsion is strongly related to the “flying” aspect of aircraft and includes topics such as aerodynamics, gas dynamics, aerospace vehicle performance, turbo-machinery and propulsion. Aerospace Structures and Materials is related to the design and manufacture of aircraft and spacecraft and includes topics such as aircraft stress analysis, aeroelasticity and vibrations, composite materials and aircraft design. Avionics and Aerospace Systems has significant electrical and computer engineering content in order to provide the necessary background for the avionics and systems engineering required to control modern aircraft and includes topics such as avionic navigation systems, communication networks, spacecraft mission design and flight control systems.

Course Requirements (BEng in Aerospace Engineering)

The program in Aerospace Engineering consists of the Engineering Core, the Aerospace Engineering Core, and option requirements as shown below. The minimum length of the program is 120 credits.

Engineering Core (27 credits)

See §71.20.5.

Aerospace Engineering Core		Credits
AERO 201	Introduction to Flight and Aerospace Systems	4.00
AERO 290	Introduction to Aircraft Design	3.00
AERO 371	Modelling and Control Systems	3.50
AERO 390	Aerospace Engineering Design Project	3.00
AERO 417	Standards, Regulations and Certification	3.00
AERO 490	Capstone Aerospace Engineering Design Project*	4.00
ENGR 242	Statics	3.00
ENGR 243	Dynamics	3.00
ENGR 244	Mechanics of Materials	3.75
ENGR 251	Thermodynamics I	3.00
ENGR 361	Fluid Mechanics I	3.00
		36.25

*Note: Students may replace AERO 490 with ENGR 490 if they are interested in a multidisciplinary project that requires collaboration with students from other engineering departments. In order for students to register in ENGR 490, their projects must be approved by the ENGR 490 Design Committee before the start of the fall term.

Option Requirements

Students in the Aerospace Engineering program must complete at least 56.75 elective credits from within one of options A, B, or C.

1. Option A — Aerodynamics and Propulsion

Students must complete the following compulsory courses from the Option Core and at least 6.5 credits from the Option Electives, with no more than one of the courses marked *. Students having a GPA of 3.0 or more may submit a request to take a graduate course as an elective.

Option A Core		<i>Credits</i>
AERO 446	Aerospace Vehicle Performance	3.00
AERO 455	Computational Fluid Dynamics for Aerospace Applications	3.75
AERO 462	Turbomachinery and Propulsion	3.00
AERO 464	Aerodynamics	3.00
AERO 465	Gas Turbine Design	3.50
AERO 481	Materials Engineering for Aerospace	3.50
ENGR 311	Transform Calculus and Partial Differential Equations	3.00
MECH 343	Theory of Machines	3.50
MECH 351	Thermodynamics II	3.50
MECH 352	Heat Transfer I	3.50
MECH 361	Fluid Mechanics II	3.50
MECH 461	Gas Dynamics	3.50
MIAE 211	Mechanical Engineering Drawing	3.50
MIAE 215	Programming for Mechanical and Industrial Engineers	3.50
MIAE 221	Materials Science	3.00
		50.25

Option A Electives		<i>Credits</i>
AERO 431	Principles of Aeroelasticity	3.00
AERO 471	Aircraft Hydro-Mechanical and Fuel Systems	3.50
AERO 472	Aircraft Pneumatic and Electrical Power Systems	3.50
AERO 480	Flight Control Systems	3.50
AERO 482	Avionic Navigation Systems	3.00
AERO 485	Introduction to Space Systems	3.00
AERO 486*	Aircraft Stress Analysis	3.00
ENGR 411	Special Technical Report	1.00
ENGR 412	Honours Research Project	3.00
INDU 372	Quality Control and Reliability	3.00
MECH 368	Electronics for Mechanical Engineers	3.50
MECH 375*	Mechanical Vibrations	3.50
MECH 411	Instrumentation and Measurements	3.50
MECH 426*	Stress and Failure Analysis of Machinery	3.00
MECH 452	Heat Transfer II	3.50
MECH 453	Heating, Ventilation and Air Conditioning Systems	3.00
MECH 460*	Finite Element Analysis	3.75
MECH 498	Topics in Mechanical Engineering	3.00

2. Option B — Aerospace Structures and Materials

Students must complete the following compulsory courses from the Option Core and at least 2.50 credits from the Option Electives. Students having a GPA of 3.0 or more may submit a request to take a graduate course as an elective.

Option B Core		<i>Credits</i>
AERO 431	Principles of Aeroelasticity	3.00
AERO 481	Materials Engineering for Aerospace	3.50
AERO 486	Aircraft Stress Analysis	3.00
AERO 487	Design of Aircraft Structures	3.00
ENGR 311	Transform Calculus and Partial Differential Equations	3.00
MECH 343	Theory of Machines	3.50
MECH 352	Heat Transfer I	3.50
MECH 375	Mechanical Vibrations	3.50
MECH 411	Instrumentation and Measurements	3.50
MECH 412	Computer-Aided Mechanical Design	3.50

MECH 460	Finite Element Analysis	3.75
MIAE 211	Mechanical Engineering Drawing	3.50
MIAE 215	Programming for Mechanical and Industrial Engineers	3.50
MIAE 221	Materials Science	3.00
MIAE 311	Manufacturing Processes	3.00
MIAE 312	Engineering Design and Manufacturing Processes Lab	1.00
MIAE 313	Machine Drawing and Design	3.50
		54.25

Option B Electives	Credits	
AERO 455	Computational Fluid Dynamics for Aerospace Applications	3.75
AERO 471	Aircraft Hydro-Mechanical and Fuel Systems	3.50
AERO 472	Aircraft Pneumatic and Electrical Power Systems	3.50
AERO 480	Flight Control Systems	3.50
AERO 482	Avionic Navigation Systems	3.00
ENGR 411	Special Technical Report	1.00
ENGR 412	Honours Research Project	3.00
INDU 372	Quality Control and Reliability	3.00
MECH 344	Machine Element Design	3.00
MECH 351	Thermodynamics II	3.50
MECH 361	Fluid Mechanics II	3.50
MECH 368	Electronics for Mechanical Engineers	3.50
MECH 422	Mechanical Behaviour of Polymer Composite Materials	3.00
MECH 425	Manufacturing of Composites	3.50
MECH 426	Stress and Failure Analysis of Machinery	3.00
MECH 476	Generative Design and Manufacturing in Engineering	3.00
MECH 498	Topics in Mechanical Engineering	3.00

3. Option C — Avionics and Aerospace Systems

Students must complete the following compulsory courses from the Option Core and at least 14.75 credits from the Option Electives. Students having a GPA of 3.0 or more may submit a request to take a graduate course as an elective.

Option C Core	Credits	
AERO 482	Avionics Navigation Systems	3.00
AERO 483	Integration of Avionics Systems	3.00
COEN 212	Digital Systems Design I	3.50
COEN 231	Introduction to Discrete Mathematics	3.00
COEN 243	Programming Methodology I	3.50
COEN 244	Programming Methodology II	3.00
COEN 311	Computer Organization and Software	3.50
COEN 352	Data Structures and Algorithms	3.00
ELEC 242	Continuous-Time Signals and Systems	3.00
ELEC 273	Basic Circuit Analysis	3.50
ELEC 342	Discrete-Time Signals and Systems	3.50
ELEC 483	Real-Time Computer Control Systems	3.50
SOEN 341	Software Process and Practices	3.00
	42.00	

Option C Electives	Credits	
AERO 471	Aircraft Hydro-Mechanical and Fuel Systems	3.50
AERO 472	Aircraft Pneumatic and Electrical Power Systems	3.50
AERO 480	Flight Control Systems	3.50
COEN 313	Digital Systems Design II	3.50
COEN 317	Microprocessor-Based Systems	3.50
COEN 320	Introduction to Real-Time Systems	3.00
COEN 346	Operating Systems	3.50
COEN 366	Communication Networks and Protocols	3.50
COEN 413	Hardware Functional Verification	3.00
COEN 421	Embedded Systems Design	4.00

COEN 498	Topics in Computer Engineering	3.00
ELEC 251	Fundamentals of Applied Electromagnetics	3.00
ELEC 311	Electronics I	3.50
ELEC 331	Fundamentals of Electrical Power Engineering	3.50
ELEC 351	Electromagnetic Waves and Guiding Structures	3.00
ELEC 367	Introduction to Digital Communications	3.50
ELEC 433	Power Electronics	3.50
ELEC 442	Digital Signal Processing	3.00
ELEC 458	Techniques in Electromagnetic Compatibility	3.00
ELEC 464	Wireless Communications	3.00
ELEC 481	Linear Systems	3.50
ELEC 482	System Optimization	3.50
ELEC 498	Topics in Electrical Engineering	3.00
ENGR 411	Special Technical Report	1.00
SOEN 342	Software Requirements and Deployment	3.00
SOEN 343	Software Architecture and Design	3.00

ENGINEERING AND COMPUTER SCIENCE

ENCS 272 *Composition and Argumentation for Engineers* (3 credits)

Prerequisite: Completion of all ESL courses required on admission. Fundamentals of English composition and argumentation: grammar; reasoning and persuasion; persuasive proofs; argumentation; structuring and outlining; the problem statement; the body; and the conclusions. Language and persuasion for effective communication in professional engineering. Cultivation of a writing style firmly based on clear and critical thinking skills. Lectures: three hours per week. Tutorial: one hour per week.

NOTE: Students who pass this course with C- or higher will fulfill the GCS writing skills requirement, and will be eligible to enrol in ENCS 282.

NOTE: This course cannot be used for credit in any GCS degree or certificate program.

ENCS 282 *Technical Writing and Communication* (3 credits)

Prerequisite: Students must have satisfied the requirements in §71.20.7 by passing the Engineering Writing Test (EWT), or by passing ENCS 272 with a grade of C- or higher. Technical writing form and style. Technical and scientific papers, abstracts, reports. Library research and referencing methods for engineers and computer scientists. Technical communication using information technology: document processing software, computer-assisted presentation, analysis and design of web presentation, choice and use of appropriate tools. Students will prepare an individual major report and make an oral presentation. Lectures: three hours per week. Tutorial: two hours per week.

ENCS 333 *Research Methods, Ethics, Law and Regulation for Computational Biology* (3 credits)

Prerequisite: ENCS 282 or equivalent; minimum of 27 credits taken as part of the BCompSc in Health and Life Sciences or BSc in Systems and Information Biology programs; or permission of the Department. The course is comprised of three modules: Research Methods; Ethics; and Intellectual Property, Law and Regulation. Lectures: one and a half hours per week, over two terms, fall and winter.

ENCS 393 *Social and Ethical Dimensions of Information and Communication Technologies* (3 credits)

Prerequisite: ENCS 282; 40 credits in BCompSc program. Ethics in an information society; surveillance and privacy; economic globalization and intellectual property in a digital world: the digital divide; computer-based profiling and hacking; electronic democracy; computer-mediated experience; and information productivity and the work/life balance. Lectures: three hours per week.

ENCS 483 *Creativity, Innovation and Critical Thinking in Science and Technology* (3 credits)

Prerequisite: Minimum of 60 credits in an engineering program or minimum of 45 credits in a non-engineering program. Understanding, thinking, arguing, and creativity in science and technology; analyzing and critiquing complex problems using multidisciplinary theories of creativity; exploring the processes of invention and innovation and their impact on economics, popular media, and social and cultural structures; case studies of why some inventions fail and others succeed. Students will be evaluated on case studies, assignments, and a project. Lectures: three hours per week.

NOTE: Students who have received credit for ENCS 283 may not take this course for credit.

ENCS 484 *Development and Global Engineering* (3 credits)

Prerequisite: Minimum of 60 credits in an engineering program or minimum of 45 credits in a non-engineering program. International development and global engineering: globalization; development projects; planning and analysis; and participatory data gathering. A project. Lectures: three hours per week.

NOTE: Students who have received credit for this topic under an ENCS 498 number may not take this course for credit.

ENCS 485 *Field Course in Engineering and Sustainable Development* (3 credits)

Prerequisite: Minimum of 24 credits completed towards an undergraduate program offered by the Gina Cody School of Engineering and Computer Science; minimum GPA of 2.50. This is a complementary field course for undergraduate students interested in areas of international development and global engineering. The course consists of lectures at Concordia University followed by a trip to a designated location where development is underway. Topics include location and context-specific history and evolution of development, globalization, sustainability initiatives, technological planning and analysis, and participatory data gathering. Students are required to complete a project-based research paper on a topic approved by the course instructor.

NOTE: Students from other Faculties may register for this course with permission from the course instructor.

ENCS 498 *Topics in Engineering and Computer Science* (3 credits)

Prerequisite: Permission of the GCS. This course may be offered in a given year upon the authorization of the GCS. The course content may vary from offering to offering.

ENGINEERING

ENGR 108 *Engineering C.Edge Option Reflective Learning I* (3 credits)

Prerequisite: Permission of the GCS. This course is a reflective learning module for students in their related field which is based on their academic requirements and their first C.Edge term.

ENGR 201 *Professional Practice and Responsibility* (1.5 credits)

Health and safety issues for engineering projects; Quebec and Canadian legislation; safe work practices; general laboratory safety common to all engineering disciplines, and specific laboratory safety pertaining to particular engineering disciplines. Review of the legal framework in Quebec, particularly the Professional Code and the Engineers Act, as well as professional ethics. Lectures: one and a half hours per week. Tutorial: one hour per week, alternate weeks.

ENGR 202 *Sustainable Development and Environmental Stewardship* (1.5 credits)

Introduction to the concept of sustainable development and the approaches for achieving it. Relationships with economic, social, and technological development. Methods for evaluating sustainability of engineering projects, including utilization of relevant databases and software. Impact of engineering design and industrial development on the environment. Case studies. Lectures: one and a half hours per week.

ENGR 208 *Engineering C.Edge Option Reflective Learning II* (3 credits)

Prerequisite: ENGR 108 and permission of the GCS. This course expands on the students' second C.Edge term in their related field of study to further develop their knowledge and work-related skills.

ENGR 213 *Applied Ordinary Differential Equations* (3 credits)

Prerequisite: MATH 204 (Cegep Mathematics 105) previously or concurrently; MATH 205 (Cegep Mathematics 203). This course introduces Engineering students to the theory and application of ordinary differential equations. Definition and terminology, initial-value problems, separable differential equations, linear equations, exact equations, solutions by substitution, linear models, orthogonal trajectories, complex numbers, form of complex numbers: powers and roots, theory: linear equations, homogeneous linear equations with constant coefficients, undetermined coefficients, variation of parameters, Cauchy-Euler equation, reduction of order, linear models: initial value, review of power series, power series solutions, theory, homogeneous linear systems, solution by diagonalisation, non-homogeneous linear systems. Eigenvalues and eigenvectors. Lectures: three hours per week. Tutorial: two hours per week.

ENGR 233 *Applied Advanced Calculus* (3 credits)

Prerequisite: MATH 204 (Cegep Mathematics 105); MATH 205 (Cegep Mathematics 203). This course introduces Engineering students to the theory and application of advanced calculus. Functions of several variables, partial derivatives, total and exact differentials, approximations with differentials. Tangent plane and normal line to a surface, directional derivatives, gradient. Double and triple integrals. Polar, cylindrical, and spherical coordinates. Change of variables in double and triple integrals. Vector differential calculus; divergence, curl, curvature, line integrals, Green's theorem, surface integrals, divergence theorem, applications of divergence theorem, Stokes' theorem. Lectures: three hours per week. Tutorial: two hours per week.

ENGR 242 *Statics* (3 credits)

Prerequisite: ENGR 213 previously or concurrently; PHYS 204; MATH 204. Resultant of force systems; equilibrium of particles and rigid bodies; distributed forces; statically determinate systems; trusses; friction; moments of inertia; virtual work. Shear and bending moment diagrams. Lectures: three hours per week. Tutorial: two hours per week.

ENGR 243 *Dynamics* (3 credits)

Prerequisite: ENGR 213, 242. Kinematics of a particle and rigid body; forces and accelerations; work and energy; impulse and momentum; dynamics of a system of particles and rigid bodies, introduction to vibrations. Lectures: three hours per week. Tutorial: two hours per week.

ENGR 244 *Mechanics of Materials* (3.75 credits)

Prerequisite: ENGR 213; ENGR 242 or 245; ENGR 233 previously or concurrently. Mechanical behaviour of materials; stress; strain; shear and bending moment diagrams; introduction to inelastic action. Analysis and design of structural and machine elements subjected to axial, torsional, and flexural loadings. Combined stresses and stress transformation. Deflections. Introduction to elastic stability. Lectures: three hours per week. Tutorial: two hours per week. Laboratory: three hours per week, alternate weeks.

ENGR 245 *Mechanical Analysis* (3 credits)

Prerequisite: PHYS 204; ENGR 213 previously or concurrently. Forces in a plane and in space, moments of forces, Varignon's theorem, rigid bodies in equilibrium, free-body diagram. Centroids, centres of gravity. Distributed forces, moments of inertia. Principle of virtual work. Kinematics of particles and rigid bodies. Forces and accelerations: work and energy; impulse and momentum. Kinetics of particles and rigid bodies. Lectures: three hours per week. Tutorial: one hour per week.

ENGR 251 *Thermodynamics I* (3 credits)

Prerequisite: MATH 203 (Cegep Mathematics 103). Basic principles of thermodynamics and their application to various systems composed of pure substances and their homogeneous non-reactive mixtures. Simple power production and utilization cycles. Lectures: three hours per week. Tutorial: two hours per week.

ENGR 290 *Introductory Engineering Team Design Project* (3 credits)

Prerequisite: ENCS 282; ENGR 213, 233. The introductory team design project introduces students to teamwork, project management, engineering design for a complex problem, technical writing and technical presentation in a team environment. Students work in teams and each team designs and builds a prototype defined by the Department. Students present their design and demonstrate that their design works in a competition at the end of the term. The students are also introduced to the basic principles of mechanics including the description of translational motion, rotational motion, forces and moments, work and energy, and they build a mechanical prototype to which the electronics and software are then added. A significant team project is required in this course. Lectures: three hours per week. Tutorial: two hours per week.

NOTE: All written documentation must follow the Concordia Form and Style guide. Students are responsible for obtaining this document before beginning the project.

ENGR 301 *Engineering Management Principles and Economics* (3 credits)

Introduction to project delivery systems. Principles of project management; role and activity of a manager; enterprise organizational charts; cost estimating; planning and control. Company finances; interest and time value of money; discounted cash flow; evaluation of projects in private and public sectors; depreciation methods; business tax regulations; decision tree; sensitivity analysis. Lectures: three hours per week. Tutorial: one hour per week.

ENGR 308 *Engineering C.Edge Option Reflective Learning III* (3 credits)

Prerequisite: ENGR 208 and permission of the GCS. This course further expands on the students' third C.Edge term in their related field of study to further develop their knowledge and work-related skills.

ENGR 311 *Transform Calculus and Partial Differential Equations* (3 credits)

Prerequisite: ENGR 213, 233. Elements of complex variables. The Laplace transform: Laplace transforms and their properties, solution of linear differential equations with constant coefficients. Further theorems and their applications. The Fourier transform: orthogonal functions, expansion of a function in orthogonal functions, the Fourier series, the Fourier integral, the Fourier transform, the convolution theorem. Partial differential equations: physical foundations of partial differential equations, introduction to boundary value problems. Lectures: three hours per week. Tutorial: two hours per week.

ENGR 361 *Fluid Mechanics I* (3 credits)

Prerequisite: ENGR 213, 233, 251. Basic concepts and principles of fluid mechanics. Classification of fluid flow. Hydrostatic forces on plane and curved surfaces, buoyancy and stability, fluids in rigid body motion. Mass, momentum, and energy conservation integral equations. Bernoulli equation. Basic concepts of pipe and duct flow. Introduction to Navier-Stokes equations. Similarity and model studies. Lectures: three hours per week. Tutorial: one hour per week.

ENGR 371 *Probability and Statistics in Engineering* (3 credits)

Prerequisite: ENGR 213, 233. Axioms of probability theory. Events. Conditional probability. Bayes theorem. Random variables. Mathematical expectation. Discrete and continuous probability density functions. Transformation of variables. Probabilistic models, statistics, and elements of hypothesis testing (sampling distributions and interval estimation). Introduction to statistical quality control. Applications to engineering problems. Lectures: three hours per week. Tutorial: one hour per week.

ENGR 391 *Numerical Methods in Engineering* (3 credits)

Prerequisite: ENGR 213, 233; COMP 248 or COEN 243 or MECH 215 or MIAE 215 or BCEE 231. This course focuses on roots of algebraic and transcendental equations; function approximation; numerical differentiation; numerical integration; solution of simultaneous algebraic equations; numerical integration of ordinary differential equations. Lectures: three hours per week. Tutorial: one hour per week.

ENGR 392 *Impact of Technology on Society* (3 credits)

Prerequisite: ENCS 282; ENGR 201, 202. Social history of technology and of science including the industrial revolution and modern times. Engineering and scientific creativity, social and environmental problems created by uncontrolled technology, appropriate technology. Lectures: three hours per week.

ENGR 411 *Special Technical Report* (1 credit)

Prerequisite: ENCS 282; permission of the Department. Students must submit a report on a topic related to the students' discipline and approved by the Department. The report must present a review of a current engineering problem, a proposal for a design project, or a current engineering practice.

NOTE: Students who have received credit for ENGR 410 may not take this course for credit.

ENGR 412 *Honours Research Project* (3 credits)

Prerequisite: ENCS 282; minimum 75 credits in the BEng program with a cumulative GPA of 3.00 or better; permission of the Department. Students work on a research project in their area of concentration, selected in consultation with and conducted under the supervision of a faculty member of the Department. The student's work must culminate in a final report, as well as an oral presentation. Students planning to register for this course should consult with the Department prior to term of planned registration. Intended for students with potential interest in graduate programs.

NOTE: Must be approved by the Department prior to registration.

ENGR 472 Robot Manipulators (3.5 credits)

Prerequisite: ELEC 372 or MECH 371. Spatial descriptions and transformations. Manipulator forward and inverse kinematics. Jacobians: velocities and static forces. Manipulator dynamics. Trajectory generation. Position control of manipulators. Force control of manipulators. Robot programming languages. Lectures: three hours per week. Laboratory: 15 hours total.

ENGR 490 Multidisciplinary Capstone Design Project (4 credits)

Prerequisite: Eligibility to register in one of these courses: AERO 490; BLDG 490; CIVI 490; COEN 490; ELEC 490; INDU 490; MECH 490; SOEN 490 or COMP 490. Students work on a supervised team project to solve a complex interdisciplinary design problem. The project is completed by a team of students from at least two different departments in GCS. The project must provide clear goals for each discipline-specific task and each student must have sufficient exposure to subjects in their program of study. Student eligibility and project topics for this course are subject to approval by the ENGR 490 Design Committee, which includes a member from each department in GCS that offers undergraduate programs. This committee vets each project to ensure the clarity and scope of the goals and its relevance to the learning outcomes of students from each discipline. The project is carried out over both fall and winter terms. Students are expected to provide a preliminary project proposal, a progress and a final report (as a group); take part in group discussions in audit sessions during the design phase; and participate in a poster session involving individual oral presentations at the end of the winter term. In addition to the technical aspects, students are expected to learn how to evaluate their designs for compliance to regulations, environmental and societal expectations and economic issues. Students learn how to work in a multidisciplinary environment and receive exposure to entrepreneurial skills. Lectures: one hour per week, two terms. Equivalent laboratory time: three hours per week, two terms.

NOTE: Students work in groups under direct supervision of a faculty member.

ENGR 498 Topics in Engineering (3 credits)

Prerequisite: Permission of the GCS. This course may be offered in a given year upon the authorization of the GCS. The course content may vary from offering to offering.

AEROSPACE ENGINEERING

AERO 201 Introduction to Flight and Aerospace Systems (4 credits)

Prerequisite: ENGR 213 previously or concurrently. Introduction to flight vehicles in the atmosphere and in space; elements of aerodynamics, airfoils and wings; aerospace technologies including structures, materials and propulsion systems; elements of aircraft performance; basic principles of flight stability, control and systems integration; aspects of aircraft conceptual design. Lectures: three hours per week. Laboratory: four hours per week, alternate weeks.

NOTE: Permission of the Department is required for non-Aerospace Engineering students.

AERO 290 Introduction to Aircraft Design (3 credits)

Prerequisite: AERO 201; ENCS 282 previously or concurrently. Students taking this course will work as part of a multidisciplinary team to solve an assigned aerospace conceptual design problem. The course provides introductory, design-related knowledge on aerospace design topics including structural layout, powerplant integration, integrated systems requirements (such as avionics, electrical, flight controls, hydraulic, fuel, air, pressurization) and preliminary performance predictions. Lectures instruct students on the conceptual design process; aircraft sizing including take-off weight, empty weight and fuel-fraction estimates; mission analysis and trade studies; airfoil selection; constraint diagrams for thrust-to-weight and wing loading estimation; fuselage layout, engines and control surface sizing; structural and systems layout; introductory stability, control and performance; and cost analysis methods. Lectures: three hours per week. Tutorial: two hours per week.

AERO 371 Modelling and Control Systems (3.5 credits)

Prerequisite: PHYS 205; ENGR 213, 243; ENGR 311 or ELEC 342 or ELEC 364 previously or concurrently. Definition and classification of dynamic systems and components. Modelling of system components using ordinary differential equations: mechanical, electrical, electromechanical, and electrohydraulic subsystems in an airplane. Modelling of systems using transfer function models, block diagrams and signal flow graphs. Linearization of non-linear systems. Transient and steady-state characteristics of dynamic systems. Systems analyses using time domain methods, root-locus methods, and frequency response methods. Characteristics and performance of linear feedback control systems. System stability. Proportional, integral and derivative controllers. Simulation technique using Matlab/Simulink. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.

NOTE: Students who have received credit for ELEC 372 or MECH 371 may not take this course for credit.

AERO 390 Aerospace Engineering Design Project (3 credits)

Prerequisite: AERO 290, 371; ENCS 282. This course focuses on general design philosophy and the design process. The following topics are covered: design factors such as product safety, reliability, life cycle costs and manufacturability; design in the aerospace context (vehicle and system design with regard to mission requirements, configuration, sizing, loads, etc.); mathematical modelling, analysis, and validation; introduction to Computer-Aided Design and Engineering (CAD and CAE); design documentation. A team-based project in which an aerospace system/subsystem is designed, implemented, documented and presented is an intrinsic part of this course. Lectures: three hours per week. Tutorial: two hours per week.

AERO 417 Standards, Regulations and Certification (3 credits)

Prerequisite: ENGR 201. Overview of DoT and other international aviation standards (e.g. FAA), regulations and certification procedures; regulatory areas, namely, pilot training/testing, air traffic procedures, aircraft systems design and airworthiness;

development process for new regulations and criteria for certification. Lectures: three hours per week.

NOTE: Students who have received credit for ENGR 417 or for this topic under an ENGR 498 number may not take this course for credit.

AERO 431 Principles of Aeroelasticity (3 credits)

Prerequisite: ENGR 243, 361; MECH 375. This course covers the following topics: aerodynamic loading of elastic airfoils; phenomenon of divergence; effect of flexible control surface on divergence of main structure; divergence of one- and two-dimensional wing models; phenomenon of flutter; flutter of two- and three-dimensional wings; flutter prevention and control; panel flutter in high-speed vehicles, flutter of turbomachine bladings, galloping vortex-induced oscillations, bridge buffeting. Lectures: three hours per week.

NOTE: Students who have received credit for MECH 431 may not take this course for credit.

AERO 446 Aerospace Vehicle Performance (3 credits)

Prerequisite: MECH 361. Introduction to fixed-wing aircraft operation. Flying environment and its measurement by aircraft instrumentation. Computation of lift and drag, effects of viscosity and compressibility. Review of piston, turboprop, turbojet and turbofan power plants. Operational performance of aircraft in climb, cruise, descent and on ground. Advanced aircraft systems. Operational considerations in aircraft design. Projects on selected topics. Lectures: three hours per week. Tutorial: one hour per week.

AERO 455 Computational Fluid Dynamics for Aerospace Applications (3.75 credits)

Prerequisite: ENGR 311, 391; MECH 361. Introduction to computational methods in fluid dynamics using commercial CFD codes; aspects of geometry modelling, structured and unstructured grid generation, solution strategy, and post-processing; conversion of CAD to CFD models; an overview of basic numerical methods for the Navier-Stokes equations with emphasis on accuracy evaluation and efficiency. Elements of turbulence closure modelling. User-defined function for customized physical models into commercial CFD codes. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

AERO 462 Turbomachinery and Propulsion (3 credits)

Prerequisite: MECH 351, 361. Aircraft design process, preliminary sizing and thrust requirements. Rotary and fixed wing aerodynamics and stability. Helicopter configurations. Structure and fatigue design considerations. Review of the gas turbine cycle and components arrangement. Turbo-propulsion: turboprop, turbofan, turbojet and turboshafts. Energy transfer in turbomachines: Euler equation, velocity triangles. Dimensional analysis of turbomachines. Flow in turbomachines. Three-dimensional flow in turbomachines. Mechanisms of losses in turbomachines. Axial-flow turbines and compressors. Centrifugal compressors. Compressor and turbine performance maps; surge and stall. Lectures: three hours per week. Tutorial: one hour per week.

NOTE: Students who have received credit for MECH 462 or MECH 468 may not take this course for credit.

AERO 464 Aerodynamics (3 credits)

Prerequisite: MECH 361. Flow conservation equations, incompressible Navier-Stokes equations, inviscid irrotational and rotational flows: the Euler equations, the potential and stream function equations. Dynamics of an incompressible inviscid flow field: the Kelvin, Stokes, and Helmholtz theorems. Elementary flows and their superposition, panel method for non-lifting bodies. Airfoil and wing characteristics, aerodynamic forces and moments coefficients. Incompressible flows around thin airfoils, Biot-Savart law, vortex sheets. Incompressible flow around thick airfoils, the panel method for lifting bodies. Incompressible flow around wings, Prandtl's lifting line theory, induced angle and down-wash, unswept wings, swept wings. Compressible subsonic flow: linearized theory, Prandtl-Glauert equation and other compressibility correction rules, the area rule. Transonic flow: Von Karman's transonic small disturbance equation, transonic full potential equation, super-critical airfoils. Lectures: three hours per week. Tutorial: one hour per week.

NOTE: Students who have received credit for MECH 464 may not take this course for credit.

AERO 465 Gas Turbine Design (3.5 credits)

Prerequisite: AERO 462. Review of turbo-propulsion types and energy transfer in turbomachines. Two- and three-dimensional flow. Lift and drag for airfoils. Cascade tests and correlations. Aerodynamic losses: physics, mechanisms, control of viscous effects. Preliminary and detailed design of turbines and compressors. Structural and thermal design requirements. Failure considerations: creep, fatigue and corrosion. Performance matching. Combustion and gearbox design. Air and oil systems design requirements. Installations and acoustics. Evolution of design. Recent trends in technologies. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

NOTE: Students who have received credit for MECH 465 may not take this course for credit.

AERO 471 Aircraft Hydro-Mechanical and Fuel Systems (3.5 credits)

Prerequisite: AERO 201 or permission of the Department. This course focuses on design principles and sizing of the following aircraft systems: hydraulic system, primary and secondary flight control actuation systems, landing gear systems, and fuel system. Traditional and new technology implementations in aircraft, helicopters and other aerospace vehicles are considered. Associated standards and regulations are described. Principles of architecture development and integration, as well as engineering tools for system sizing and simulation, are covered. Lectures: three hours per week. Laboratory: 12 hours total.

AERO 472 Aircraft Pneumatic and Electrical Power Systems (3.5 credits)

Prerequisite: AERO 201; ENGR 361. This course focuses on design principles and sizing of the following aircraft systems: electrical power system, auxiliary and emergency power systems, environmental control system, ice and rain protection system, and

pneumatic power system. Traditional and new technology implementations in aircraft, helicopters and other aerospace vehicles are considered. Associated standards and regulations are described. Principles of architecture development and integration, as well as engineering tools for system sizing and simulation, are covered. A project is required, including a laboratory component. Lectures: three hours per week. Laboratory: 12 hours total.

AERO 480 *Flight Control Systems* (3.5 credits)

Prerequisite: AERO 371 or ELEC 372 or MECH 371 or SOEN 385. Basic flight control and flight dynamics principles. Aircraft dynamic equations and performance data. Implementation of aircraft control: control surfaces and their operations, development of thrust and its control; autopilot systems, their algorithms, dynamics and interaction problems. Flight instruments, principles of operation and dynamics. Cockpit layouts — basic configuration, ergonomic design, control field forces; advanced concepts in instruments, avionics and displays; HUD; flight management systems, and communication equipment. Introduction to flight simulation: overview of visual, audio and motion simulator systems; advanced concepts in flight simulators. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

NOTE: Students who have received credit for ELEC 415 or MECH 480 may not take this course for credit.

AERO 481 *Materials Engineering for Aerospace* (3.5 credits)

Prerequisite: MECH 221 or MIAE 221. Different types of materials used in aerospace. Metals, composites, ceramics, polymers. Failure prediction and prevention. Modes of material failure, fracture, fatigue, creep, corrosion, impact. Effect of high temperature and multiaxial loadings. High temperature materials. Cumulative damage in fatigue and creep. Materials selection. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

NOTE: Students who have received credit for MECH 321 or 481 may not take this course for credit.

AERO 482 *Avionic Navigation Systems* (3 credits)

Prerequisite: ENGR 371 or COMP 233; AERO 371 or ELEC 372 or MECH 370 or SOEN 385. Basics of modern electronic navigation systems, history of air navigation, earth coordinate and mapping systems; basic theory and analysis of modern electronic navigation instrumentation, communication and radar systems, approach aids, airborne systems, transmitters and antenna coverage; noise and losses, target detection, digital processing, display systems and technology; demonstration of avionic systems using flight simulator. Lectures: three hours per week.

NOTE: Students who have received credit for ELEC 416 or MECH 482 may not take this course for credit.

AERO 483 *Integration of Avionics Systems* (3 credits)

Prerequisite: AERO 482. Introduction to the basic principles of integration of avionics systems; review of Earth's geometry and Newton's laws; inertial navigation sensors and systems (INS); errors and uncertainty in navigation; Global Positioning System (GPS); differential and carrier tracking GPS applications; terrestrial radio navigation systems; Kalman filtering; integration of navigation systems using Kalman filtering; integration of GPS and INS using Kalman filtering. Lectures: three hours per week.

NOTE: Students who have received credit for ENGR 418 may not take this course for credit.

AERO 485 *Introduction to Space Systems* (3 credits)

Prerequisite: MECH 351, 361. Classification of space propulsion systems; Tsiolkovskij's equation; ideal rocket and nozzle design; flight performance; basic orbital mechanics; chemical propellant rocket performance analysis; fundamentals of liquid and solid propellant rocket motors; electric, solar, fusion thruster. Lectures: three hours per week.

NOTE: Students who have received credit for MECH 485 or for this topic under a MECH 498 number may not take this course for credit.

AERO 486 *Aircraft Stress Analysis* (3 credits)

Prerequisite: ENGR 243, 244. Definition of load paths in typical aircraft structures. Derivation of analysis procedures to enable the designer to size preliminary designs. Internal shear flow distributions that balance external loads. Stress analysis of open and closed cell beams; statically indeterminate beams and frames; single and multi cell torque boxes; symmetric heavy fuselage frames. Structural instability of columns, beams, plates and flanges in compression and shear. Centres of twist and flexure; structural warping; margins of safety; concepts of optimum design; lug analysis and mechanical joints; matrix analysis methods leading to the Finite Element method. Stress analysis of thin-walled metallic structures. Lectures: three hours per week.

NOTE: Students who have received credit for MECH 486 may not take this course for credit.

AERO 487 *Design of Aircraft Structures* (3 credits)

Prerequisite: AERO 486. Design process for aircraft structures. Aero/performance aspects of aircraft structures. Airworthiness and design considerations. Materials. Static, vibratory and aeroelastic loadings. Propulsion-induced loadings. Functions and fabrication of structural components. Design for buckling of aircraft structures: local buckling, instability of stiffened panels, flexural torsional buckling. Design for fracture and fatigue failures. Stress analysis and design of wings, fuselages, stringers, fuselage frames, wing ribs, cut-outs in wings and fuselages, and laminated structures. Design using Finite Element Method. Concept of Optimum Design of Aircraft Structures. Design case studies. Lectures: three hours per week.

NOTE: Students who have received credit for MECH 487 may not take this course for credit.

AERO 490 *Capstone Aerospace Engineering Design Project* (4 credits)

Prerequisite: 75 credits in the program; AERO 390; ENGR 301. This course includes a supervised design, simulation or experimental capstone design project including a preliminary project proposal with complete project plan and a technical report at the end of the fall term; a final report by the group and presentation at the end of the winter term. Lectures: one hour per week,

one term. Equivalent laboratory time: three hours per week, two terms.

NOTE: Students will work in groups under direct supervision of a faculty member.

NOTE: With permission of the Department, students may enrol in MECH 490 instead of AERO 490 on the condition that they choose to complete an aerospace-oriented project.

BUILDING, CIVIL AND ENVIRONMENTAL ENGINEERING

BCEE 231 **Structured Programming and Applications for Building and Civil Engineers** (3 credits)

Prerequisite: MATH 204; ENGR 242 previously or concurrently. Elements of procedural programming: variables, primitive data types, scope, operators and expressions, control structures, functions, derived data types and basic data structures. Program structure and development: specifications, analysis of requirements, flow charting, incremental development, testing, validation and program documenting. Application of procedural programming, graphics and numerical tool box to mathematics and building, civil and environmental engineering. Lectures: three hours per week. Tutorial: two hours per week.

BCEE 342 **Structural Analysis I** (3 credits)

Prerequisite: ENGR 244. Analysis of statically determinate structures: deflections, strain energy concepts, virtual work principles. Mueller Breslau principle, influence lines. Approximate methods for statically indeterminate structures. Collapse load analysis. Cables and Arches. Computer applications. Lectures: three hours per week. Tutorial: two hours per week.

BCEE 343 **Structural Analysis II** (3 credits)

Prerequisite: BCEE 342. Analysis of statically indeterminate structures: the methods of consistent deformations, slope deflection, and moment distribution. Application of virtual work principles. Introduction to matrix methods. Computer applications. Lectures: three hours per week. Tutorial: two hours per week.

BCEE 344 **Structural Design of Steel and Wood Elements** (3 credits)

Prerequisite: BCEE 342. This course covers the following topics: basis for limit states design, code requirements, structural steel design: tension and compression members, beams and beam-columns, connections, design of timber members. Lectures: three hours per week. Tutorial: two hours per week.

BCEE 345 **Structural Design of Reinforced Concrete Elements** (3 credits)

Prerequisite: BCEE 342. This course covers the behaviour of reinforced concrete elements in flexure, compression, shear and bond. Other topics covered in the course are limit states design of reinforced concrete beams, one-way slabs, columns, and footings; serviceability limits states; introduction to prestressed concrete and masonry structures. Lectures: three hours per week. Tutorial: two hours per week.

BCEE 371 **Surveying** (3 credits)

Prerequisite: BLDG 212 or CIVI 212. Elementary operations employed in engineering surveying: use, care, and adjustment of instruments; linear and angular measurements; traversing; earthwork calculations; theory of errors; horizontal and vertical curves and curve layout; slope stakes and grades, application of surveying methods to city, topographic surveying, and introduction to advanced surveying techniques; use of digital computers in surveying calculations. Summer school taken before entering second year of study in the BEng program. Lectures and fieldwork: eight hours per day; six days per week for three weeks.

BCEE 451 **Construction Engineering** (3 credits)

Prerequisite: BLDG 341 or CIVI 341. The nature of construction and the environment in which the industry works; organizational structures for project delivery; construction contracts and documents; introduction to construction processes: excavation and site works, foundation layout, concrete form design, concrete, steel, timber, and masonry construction; project planning, scheduling, and control; construction safety. Lectures: three hours per week.

BCEE 452 **Fundamentals of Finite Element Analysis of Structures** (3 credits)

Prerequisite: ENGR 213, 233; BCEE 231, 343. Matrix formulation of the force and of the displacement methods of analysis. Direct stiffness approach; finite element methods for structural analysis. Truss, beam, plane strain, plane stress, shell and solid elements. Computer applications. Lectures: three hours per week.

BCEE 455 **Introduction to Structural Dynamics** (3 credits)

Prerequisite: ENGR 243, 391; BCEE 342. Theory of vibration. Dynamic response of simple structural systems. Effects of blast, wind, traffic, and machinery vibrations. Basic concepts in earthquake resistant design. Computer applications. Lectures: three hours per week.

BCEE 464 **Project Cost Estimating** (3 credits)

Prerequisite: ENGR 301. Techniques and procedures used for estimating cost of construction projects. Cost estimation process; elements of project cost; conceptual and detailed cost estimation methods; risk assessment and range estimating; case studies; computer-aided estimating.

BCEE 465 **Construction Planning and Control** (3 credits)

Prerequisite: BCEE 478 or equivalent. This course covers the following topics: methods of delivering construction, contractual relationships and organizational structures, phases of project development, estimating resource requirements, costs and durations, bidding strategies, network analysis using CPM and PERT, time-cost trade-off, resource allocation, cash flow analysis, earned-value concept for integrated time and cost control, quality control, and value engineering. Lectures: three hours per week.

BCEE 466 *Simulations and Design of Construction Operations* (3 credits)

Prerequisite: BCEE 451. Principles of modelling and simulation. Classification and validation of simulation models. Analysis of input data and outputs. Object Oriented Simulation (OOS). Simulation languages. Application of discrete event simulation in construction operations including earthmoving operations, building construction operations, and tunnelling operations.

BCEE 478 *Project Management for Construction* (3 credits)

Prerequisite: BLDG 341 or CIVI 341. This course introduces project management techniques in construction, including project delivery methods, construction contracts, cost estimating and bidding planning and scheduling, cash flow analysis, project tracking, control and computer applications. Lectures: three hours per week.

NOTE: Students who have received credit for BLDG 478 may not take this course for credit.

BCEE 491 *Labour and Industrial Relations in Construction* (3 credits)

Prerequisite: ENGR 301. The study of labour legislation is covered, with special emphasis on the construction industry, union organization, the theory and practice of negotiations, mediation, contract administration, and arbitration. Moreover, the review of actual contracts and future trends are discussed. Lectures: three hours per week.

NOTE: Students who have received credit for BLDG 491 may not take this course for credit.

BCEE 492 *Construction Processes* (3 credits)

Prerequisite: BCEE 451 or ENGR 451. This course is a study of current construction methods and techniques. The subjects include site preparation and earth-work, wood framing, masonry, concrete forming, slip forming, precast construction, industrialized building, deep excavation shoring and underpinning. Other topics covered in the course are design, erection, and removal of temporary construction work, current field practice and safety considerations and site visits. Lectures: three hours per week.

NOTE: Students who have received credit for BLDG 492 may not take this course for credit.

BCEE 493 *Legal Issues in Construction* (3 credits)

Prerequisite: ENGR 301. Legal concepts and processes applicable to the development of constructed facilities and to the operation of the construction firm are covered. Emphasis is given to Quebec law and institutions. Lectures: three hours per week.

NOTE: Students who have received credit for BLDG 493 may not take this course for credit.

BUILDING ENGINEERING

BLDG 212 *Building Engineering Drawing and Introduction to Design* (3 credits)

Fundamentals of technical drawing, dimensioning practices, orthographic projections, auxiliary and sectional views of buildings. Theory and applications of descriptive geometry in building design. Computer-aided building drawing. Building sub-systems and related graphics standards; architectural and building engineering drawing at preliminary and final stages. Introduction to the design of light-frame buildings. Project: representation of a building and its sub-systems. Introduction to conceptual design. Lectures: three hours per week. Tutorial: two hours per week.

BLDG 341 *Building Engineering Systems* (3 credits)

Prerequisite: BCEE 231 previously or concurrently. Introduction to systematic solution of building engineering problems. Techniques treated include linear programming, network analysis, nonlinear programming. Introduction to decision analysis and simulation. Application of optimization methods for solution of design problems in building science, building environment, building structures, and construction management, taking into account sustainability issues. Lectures: three hours per week.

BLDG 365 *Building Science* (3.5 credits)

Prerequisite: ENGR 251. General introduction to the thermal environment and sustainable development issues. Topics include heat, temperature, one-dimensional steady-state processes. Convection: natural and forced. Radiation. Combined radiative and convective surface transfer. Psychrometrics. Thermal comfort. Air quality. Condensation: surface and interstitial. Introduction to compressible viscous flow, friction, and flow in pipes; boundary layer and wind effects. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.

BLDG 366 *Acoustics and Lighting* (3.5 credits)

Prerequisite: ENGR 243. General introduction to the aural and visual environment. Psychological impact of environment. Subjective and objective scales of measurement. Introduction to vibration. The hearing mechanism. Transmission of sound, passive control of noise in buildings, transmission loss, absorption and reverberation time. Room acoustic assessment. Active control of the aural environment. Visual perception. Photometry, brightness, luminance, and illumination. Concept of natural lighting in building. Artificial lighting; light sources; luminaries. Calorimetry. Calculation methods for artificial lighting. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.

BLDG 371 *Building Service Systems* (3.5 credits)

Prerequisite: BLDG 365 previously or concurrently. Principles of building service systems, including electrical, gas, communications, service-water supply and distribution; introduction to plans, codes, and standards for utility distribution systems. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

BLDG 390 *Building Engineering Design Project* (3.5 credits)

Prerequisite: BLDG 341; ENCS 282; BCEE 344 previously or concurrently. The project of each team will encompass various stages of design of a medium-size building. Students learn building engineering design process, methodology, identification of objectives,

building codes, formulation of design problems, and estimation of loads on buildings. The design topics encompass the development and evaluation of sustainable building design alternatives; conceptual building design of spatial requirements, design of space layout; and building design accounting for the synthesis and design of structures, enclosure systems, and services (HVAC, lighting, electrical distribution) using computer-aided design tools. Additionally, performance evaluation using modelling, sensitivity analysis and cost estimation is presented. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

BLDG 432 *Geology and Soil Mechanics* (3.5 credits)

Prerequisite: ENGR 244. Basic principles of physical geology are covered, with emphasis on topics related to soil mechanics. Furthermore, this course covers the study of minerals, index properties and classification of soils, weight-volume relationships, soil structures and moisture-density relationships. Permeability, deformation, and strength of soils, principle of total and effective stresses, steady state seepage through isotropic soil media, stress distribution due to external loads and analysis of total settlements, and outline of theory of consolidation are covered. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.

BLDG 462 *Modern Building Materials* (3 credits)

Prerequisite: CIVI 321. Engineering properties of building materials such as: plastics, synthetic fibres, adhesives, sealants, caulking compounds, foams, sandwich panels, composites, polymer concrete systems, fibre-reinforced concretes, plastic mortars, polymers for flooring, roofing, synthetic wall papers. Their structural, thermal, and acoustical properties. Consideration of corrosion, bio- and thermal-degradation, stability to ultraviolet and solar radiation. Laboratory sessions to illustrate synthesis, application, testing, deterioration, and protection. Lectures: three hours per week.

BLDG 463 *Building Envelope Design* (3 credits)

Prerequisite: BLDG 365. Technical influences in the design of building envelope, including the control of heat flow, air and moisture penetration, building movements, and deterioration are covered. Other topics covered by the course are the application of air/vapour barrier and rain-screen systems, performance assessment and building codes through case studies and design projects, sustainable design principles, design of walls, roofs, joints and assemblies. Students also learn cause of deterioration and preventive measures, on-site investigation and relevant building codes and standards. Lectures: three hours per week.

BLDG 465 *Fire and Smoke Control in Buildings* (3 credits)

Prerequisite: BLDG 365. Topics treated include fire and smoke control; failure mechanisms of building enclosure illustrated by case studies; code requirements for enclosure systems; systems approach for fire safety. Lectures: three hours per week.

BLDG 471 *HVAC System Design* (4 credits)

Prerequisite: BLDG 371; BLDG 476 previously or concurrently. Principles of HVAC system design and analysis; sustainable design issues and impact on environment: component and system selection criteria including room air distribution, fans and air circulation, humidifying and dehumidifying processes, piping and ducting design. Air quality standards. Control systems and techniques; operational economics; computer applications. Lectures: three hours per week. Laboratory: two hours per week.

BLDG 472 *Building Energy Conservation Technologies* (3 credits)

Prerequisite: BLDG 471 previously or concurrently. Standards of energy efficiency in buildings. Trends in energy consumption. Energy audit: evaluation of energy performance of existing buildings, weather normalization methods, measurements, disaggregation of total energy consumption, use of computer models, impact of people behaviour. Energy efficiency measures in buildings: approaches, materials and equipments, operating strategies, evaluation methods of energy savings. Renewable energy sources: passive or active solar systems, geothermal systems, free-cooling. Optimum selection of energy sources. Impact of emerging technologies. Case studies. Lectures: three hours per week.

BLDG 473 *Building Acoustics* (3 credits)

Prerequisite: BLDG 366. Noise control criteria and regulations, instrumentation, noise sources, room acoustics, walls, barriers and enclosures, acoustical materials and structures, vibration and noise control systems for buildings. Lectures: three hours per week.

BLDG 474 *Building Illumination and Daylighting* (3 credits)

Prerequisite: BLDG 366. Production, measurement and control of light. Photometric quantities, visual perception and colour theory. Daylight and artificial illumination systems. Radiative transfer, fixture and lamp characteristics, control devices and energy conservation techniques. Design of lighting systems. Solar energy utilization and daylighting. Integration of lighting systems with mechanical systems for energy conservation and sustainable development. Lectures: three hours per week.

BLDG 475 *Indoor Air Quality* (3 credits)

Prerequisite: BLDG 371 previously or concurrently. Elements of indoor air quality, physical/chemical characteristics of contaminants, health effects, standard requirements. Estimation of the levels of indoor air contaminants in buildings. Design of ventilation systems for pollutant control. Air pollution due to outdoor air supply through ventilation systems. Effect of outdoor air pollution on indoor air quality. Lectures: three hours per week.

BLDG 476 *Thermal Analysis of Buildings* (3 credits)

Prerequisite: BLDG 365; ENGR 361. Two- and three-dimensional steady-state and transient conductive heat transfer together with convection and radiation as applied to building materials and geometries. Heating and cooling load analysis, including building shapes, construction type, solar radiation, infiltration, occupancy effects, and daily load variations. Computer applications for thermal load analysis. Introduction to heat exchangers. Lectures: three hours per week. Tutorial: one hour per week.

BLDG 477 *Control Systems in Buildings* (3 credits)

Prerequisite: BLDG 371 previously or concurrently. Introduction to automatic control systems. Control issues related to energy conservation, indoor air quality and thermal comfort in buildings. Classification of HVAC control systems. Control system hardware: selection and sizing of sensors, actuators and controllers. Practical HVAC control systems; elementary local loop and complete control systems. Designing and tuning of controllers. Building automation systems. Case studies. Lectures: three hours per week.

BLDG 479 *Commissioning of HVAC Systems in Buildings* (3 credits)

Prerequisite: BLDG 471 previously or concurrently. This course covers the following topics: introduction; scope of commissioning of Heating, Ventilating and Air Conditioning (HVAC) systems including commissioning, retro-commissioning, recommissioning, continuous commissioning, and ongoing commissioning; process vs. technical commissioning; instrumentation for the monitoring of HVAC operation and performance; uncertainty analysis of experimental data; mathematical models of different classes of virtual sensors; data mining techniques applied to measurements from HVAC systems; development of benchmarking models of the normal HVAC operation including correlation-based models, Artificial Neural Networks, and calibrated models; methods for the automated faults detection and diagnostic (FDD); forecasting models of the energy demand in buildings; recommissioning measures for HVAC systems; methods of estimation of energy and cost savings due to the commissioning of HVAC systems. Lectures: three hours per week.

BLDG 480 *Building Information Modelling in Construction* (3 credits)

This course covers the following topics: introduction to Building Information Modelling (BIM) technologies; BIM implementation at different project stages (pre-construction, construction, and facility management); BIM-Aided design alternatives (constructability analysis, and development of space-time-cost models); BIM for visualization (trade coordination and processes monitoring). A project is required. Lectures: three hours per week.

BLDG 481 *Fundamentals of Facility Management* (3 credits)

The course provides a study of the fundamental practices concomitant with facility management. The subjects include facility management industry backgrounds, management of outsourced services, financial analysis, asset management as it relates to building systems and controls. The course has a focus on sustainability, finance, maintenance and operations of facilities and considers solutions to facility management challenges. Lectures: three hours per week.

BLDG 482 *Impact of Technology on Society and Architecture* (3 credits)

Prerequisite: 20 courses in the BEng program. History of architecture as the confluence of social and technological evolution. Methodology and thought processes in the theory and design of cities and the human habitat. Impact of technology on society. Energy conservation, environmental constraints and sustainability issues. Lectures: three hours per week.

BLDG 483 *Integrated Solar Systems: Design and Operation* (3 credits)

This course covers the following topics: energy modelling; analysis and design of solar buildings with passive and hybrid building-integrated systems; and photovoltaic systems. Students learn both fundamentals and applications, including use of software in Mathcad, TRNSYS and Retscreen. A project is required. Lectures: three hours per week.

BLDG 484 *Diagnostics and Rehabilitation of Building Envelope* (3 credits)

Prerequisite: BLDG 463 previously or concurrently. This course covers the following topics: modes of failures including wood decay, mould growth, freeze-thaw, corrosion, chemical reaction, and movements; common failures in building envelopes including contemporary and traditional walls, windows, roofs and below-grade structures; performance assessment protocols including diagnostics procedures, laboratory and field test methods; remedy strategies and maintenance plan; relevant building codes and standards. A project is required. Lectures: three hours per week.

BLDG 490 *Capstone Building Engineering Design Project* (4 credits)

Prerequisite: Minimum of 75 credits in the BEng (Bldg) program including ENCS 282; BCEE 344, 345; BLDG 371, 390; ENGR 301. The project of each team encompasses the integrated design of at least three sub-systems of a new or retro-fitted building to achieve high performance and efficiency at reasonable cost; sustainable design and environmental impact issues are addressed in all projects. In the process, students learn, through case studies and literature survey, the information gathering and decision/design process, problem-resolution as well as aspects related to management, teamwork and communication. Students registering for this course must contact the course coordinator for the detailed procedure. Lectures: two hours per week, two terms.

BLDG 490A *Capstone Building Engineering Design Project* (4 credits)

Prerequisite: Minimum of 75 credits in the BEng (Bldg) program including ENCS 282; BCEE 344, 345; BLDG 371, 390; ENGR 301. The project of each team encompasses the integrated design of at least three sub-systems of a new or retro-fitted building to achieve high performance and efficiency at reasonable cost; sustainable design and environmental impact issues are addressed in all projects. In the process, students learn, through case studies and literature survey, the information gathering and decision/design process, problem-resolution as well as aspects related to management, teamwork and communication. Students registering for this course must contact the course coordinator for the detailed procedure. Lectures: two hours per week, two terms.

BLDG 490B *Capstone Building Engineering Design Project* (4 credits)

Prerequisite: Minimum of 75 credits in the BEng (Bldg) program including ENCS 282; BCEE 344, 345; BLDG 371, 390; ENGR 301. The project of each team encompasses the integrated design of at least three sub-systems of a new or retro-fitted building to achieve high performance and efficiency at reasonable cost; sustainable design and environmental impact issues are addressed in

all projects. In the process, students learn, through case studies and literature survey, the information gathering and decision/design process, problem-resolution as well as aspects related to management, teamwork and communication. Students registering for this course must contact the course coordinator for the detailed procedure. Lectures: two hours per week, two terms.

BLDG 498 *Topics in Building Engineering* (3 credits)

Prerequisite: Permission of the Department. This course may be offered in a given year upon the authorization of the Department. The course content may vary from offering to offering and will be chosen to complement the available elective courses. Lectures: three hours per week.

CIVIL ENGINEERING

CIVI 212 *Civil Engineering Drawing and Introduction to Design* (3 credits)

Fundamentals of technical drawing, orthographic projections, sectional views. Computer-aided drawing: slabs, beams, and columns; steel structures; building trusses and bridges, wood and masonry structures. Working drawing and dimensioning practice. Introduction to the design process. Lectures: three hours per week. Tutorial: two hours per week.

CIVI 231 *Geology for Civil Engineers* (3 credits)

Basic principles of physical and structural geology with emphasis on topics related to civil engineering, study of minerals, rocks and soil types, load formation, techniques of air-photo interpretations, and geological mapping. Geological site investigation. Preparation and interpretation of engineering geology reports. Lectures: three hours per week. Tutorial: one hour per week.

CIVI 321 *Engineering Materials* (3.75 credits)

Prerequisite: CHEM 205 or equivalent. Linear and nonlinear material behaviour, time-dependent behaviour; structural and engineering properties of structural metals; behaviour of wood; production and properties of concrete; bituminous materials, ceramics, plastics; introduction to composite materials. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

CIVI 341 *Civil Engineering Systems* (3 credits)

Prerequisite: BCEE 231 previously or concurrently. Development of concepts and techniques commonly associated with systems engineering which are applicable to design and operation of systems that concern civil engineers. Design and planning process; problem formulation, optimization concepts, linear programming, decision analysis; system simulation; network planning and project scheduling; computer applications. The techniques developed are used to solve problems in transportation, water resources, structures, and construction management. Lectures: three hours per week.

CIVI 361 *Introduction to Environmental Engineering* (3.5 credits)

Prerequisite: ENGR 361. Ecosystems considerations, food chain, natural decomposition, and recycling; environmental problems and impact of engineering activities. Various modes of pollution, water, air, and soil contamination, noise pollution; pollution measurement and quantification. Water and waste-water physical, chemical and biological characteristics; turbidity and colour, dissolved oxygen, hardness, pH, alkalinity, organic content, sampling and analysis, chemical and biochemical oxygen demand. Basic processes of treatment: flocculation and coagulation, sedimentation, filtration. Lectures: three hours per week. Tutorial: two hours per week, alternate weeks. Laboratory: two hours per week, alternate weeks.

CIVI 372 *Transportation Engineering* (3 credits)

Prerequisite: BCEE 371; CIVI 341. Fields of transportation engineering; transportation's roles in society; planning and design of road, rail, air, and water-way system components: terminals, right-of-way; control systems: evaluation of alternative modes and decision-making process; introduction to computer-aided design and management of systems. Lectures: three hours per week. Tutorial: one hour per week.

CIVI 381 *Hydraulics* (3.5 credits)

Prerequisite: ENGR 361, 391. Basic hydrodynamics; boundary layer theory, principle of energy losses. Steady flow in open channel; uniform flow, specific energy and critical flow, transition; gradually varied flow in channels and conduits, water surface profiles, computer applications. Flow measurement in open channel, weirs, overflow spillways. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.

CIVI 382 *Water Resources Engineering* (3.5 credits)

Prerequisite: CIVI 381; ENGR 391 or EMAT 391. Sources of water: surface water, groundwater, water quantities and requirements. Water use cycle. Characteristics of water and wastewater. Demand forecast, water use prediction and planning. Groundwater withdrawal and well hydraulics. Water supply network analysis, design of distribution systems, storage, pumping. Sanitary and storm water quantities, urban hydrology. Design of sewer systems, interceptors, gravity sewer, computer applications. Sustainable use of water resources. Design case studies. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.

CIVI 390 *Civil Engineering Design Project* (3.5 credits)

Prerequisite: CIVI 361 previously or concurrently; ENCS 282; BCEE 344 or 345 previously or concurrently. The project of each team will encompass the various stages of design of a medium-size civil engineering project. Students learn civil engineering design process, methodology, identification of objectives, codes, formulation of design problems, and estimation of loads on

structures. The topics of design include the development and evaluation of sustainable design alternatives; and the computer-aided design tools. Additionally, performance evaluation using modelling, sensitivity analysis, and cost estimation is presented. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

CIVI 432 *Soil Mechanics* (3.5 credits)

Prerequisite: ENGR 244. Index properties and classification of soils. Weight-volume relationships. Soil structures. Moisture-density relationships. Permeability, deformation, and strength of soils. Principle of total and effective stresses. Steady stage seepage through isotropic soil media. Stress distribution due to external loads and analysis of total settlements. Outline of theory of consolidation. Fundamentals of stability of earth retaining walls, slopes, and footings. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.

CIVI 435 *Foundation Design* (3 credits)

Prerequisite: CIVI 432. Site investigation. Shallow and deep foundations. Bearing capacity and settlement of foundations. Earth-retaining structures, sheet piles, cofferdams, anchors. Foundations subjected to dynamic loading. Foundations on difficult soils, soil improvement and underpinning. Lectures: three hours per week. Tutorial: two hours per week.

CIVI 437 *Advanced Geotechnical Engineering* (3 credits)

Prerequisite: CIVI 432. Mechanical properties of rocks and rock formations. Underground openings in rocks. Slope stability of stratified formations. Foundations on rocks. Rock bolting. Introduction of soil dynamics. Wave propagation in one and two dimensions in elastic media. Seismic waves. Foundations subjected to dynamic loading. Theory of liquefaction. Lectures: three hours per week.

CIVI 440 *Computer Applications in Civil Engineering Practice* (3 credits)

Prerequisite: BCEE 231; 75 credits in the program. General purpose IT tools for civil engineering applications: database programming and web-based tools. Introduction to remote sensing and GIS. Application of major software packages in selected areas of civil engineering practice with emphasis on modelling, data integration, and work-flow. Case studies in structural design, geotechnical engineering, transportation, and environmental engineering. Lectures: two hours per week. Laboratory: two hours per week.

CIVI 453 *Design of Reinforced Concrete Structures* (3.5 credits)

Prerequisite: BCEE 345; CIVI 390 or BLDG 390 previously or concurrently. This course covers a wide variety of topics on reinforced concrete including two-way slab systems (flat plate, flat slab and slab-on-beams); slender columns; columns subjected to biaxial bending; lateral loads resisting systems (moment-resisting frames, shear walls and coupled shear walls); prestressed concrete (losses, design requirements for flexure, shear, bond, anchorage and deflections). Design project. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.

CIVI 454 *Design of Steel Structures* (3.5 credits)

Prerequisite: BCEE 344; CIVI 390 or BLDG 390 previously or concurrently. This course covers a wide variety of topics on steel structures: trends and developments in structural-steel design, framing systems, floor systems such as composite construction and plate girders, braced frames, and moment-resisting frames. The subject includes connections and P-Delta effects. A design project is required. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.

CIVI 464 *Environmental Impact Assessment* (3 credits)

Prerequisite: CIVI 361. Engineering activities and the environment; environmental ethics. Prediction and estimation of impact on air, water, soil quality, and biological, socio-economic, cultural environments. Water and air pollution laws, solid and hazardous waste laws. Environmental inventories, assessment preparation, and review. Federal and provincial laws and regulations on environmental assessment. Strategies for environmental compliance, resolution of environmental conflicts. Case studies. Lectures: three hours per week.

CIVI 465 *Water Pollution and Control* (3.5 credits)

Prerequisite: CIVI 361. Physical, chemical, and biological characteristics of water, water quality standards, reaction kinetics and material balances, eutrophication. Containment of reactive contaminants. Natural purification processes in water systems, adsorption, absorption; diffusion and dispersion, oxidation. Large-scale transport of contaminants, single and multiple source models; modelling of transport processes, computer simulation. Introduction to ground-water pollution, sea-water intrusion. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

CIVI 466 *Engineering Aspects of Chemical and Biological Processes* (3 credits)

Prerequisite: CIVI 361. Introduction to water purification, chemical treatment, coagulation, disinfection, special purification methods. Primary and secondary waste-water treatment, solution and surface chemistry, microbiological consideration; reaction kinetics, diffusion processes, membrane processes, re-aeration. Biological treatment, activated sludge process, treatment and disposal; biological reactors; aerated lagoons; trickling filter; biological nutrient removal. Tertiary waste-water treatment. Lectures: three hours per week.

CIVI 467 *Air Pollution and Emission Control* (3 credits)

Prerequisite: CIVI 361. Types of air pollutants. Sources of air pollutants, effects of air pollutants on health, vegetation, materials, and the atmosphere; emission standards. Meteorological considerations, dispersion of pollutants in the atmosphere, distribution

and cleansing of particle matter, atmospheric photochemical reactions. Particulate pollutant control, source correction, cooling treatment; control of gaseous pollutant, point sources, odour control; measurement techniques; computer applications. Lectures: three hours per week.

CIVI 468 *Waste Management* (3 credits)

Prerequisite: CIVI 361. Solid waste; source and generation, sampling and analysis, collection, transport, and storage. Waste recycling, physical and chemical reduction; drying; energy recovery; disposal of solid waste. Sanitary and secure landfill planning, site selection, design and operation; chemical and biological reactions. Hazardous waste, chemical and physical characteristics, handling, processing, transportation, and disposal. Resource recovery alternatives, material exchanges, hazardous waste management facilities, incinerators, landfills. Lectures: three hours per week.

CIVI 469 *Geo-Environmental Engineering* (3.5 credits)

Prerequisite: CIVI 361. Structure and surface chemistry of soil, ion exchange, hydrolysis equilibrium, adsorption. Biochemical degradation, toxic contaminants. Mechanical and thermodynamic equilibrium in soil. Geotechnical considerations in environmental design; soil decontamination. Barrier technologies and soil interaction. Landfill covers and leachate collection systems; subsurface investigation, soil-gas survey. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

CIVI 471 *Highway and Pavement Design* (3 credits)

Prerequisite: BCEE 371; CIVI 321. This course covers the following topics: design criteria, including capacity and level of service, route alignment and right-of-way considerations, geometric design, earthworks and construction practices; pavement materials and tests; flexible and rigid pavement design procedures including subgrade, base, and surfacing characteristics, loads, stresses in pavement systems, material characterization, pavement response models, effects of natural forces, and construction practices; pavement management; computer applications; geometric and pavement design projects. Lectures: three hours per week. Tutorial: two hours per week.

CIVI 474 *Transportation Planning and Design* (3 credits)

Prerequisite: CIVI 372. Transportation planning process; data collection and demand analysis; trip generation, trip distribution, modal split and route assignment; forecasting travel patterns. Design of transportation facilities: street sections, intersections, and parking areas. Computer applications and design projects. Lectures: three hours per week. Tutorial: two hours per week, alternate weeks.

CIVI 483 *Hydrology* (3 credits)

Prerequisite: CIVI 381. Weather elements; precipitation, stage-discharge relations; evapo-transpiration; ground-water flow; stream-flow hydrography, unit hydrography, synthetic hydrographs; laminar flow; hydrologic routing; instantaneous hydrograph; hydraulic routing, method of characteristics, kinematic routing; statistical analysis, confidence intervals, stochastic generator, autoregressive model; applications of hydrology. Lectures: three hours per week. Tutorial: two hours per week.

CIVI 484 *Hydraulic Engineering* (3.5 credits)

Prerequisite: CIVI 381. Development of surface water resource; basic measurements in hydraulic engineering; storage reservoirs; practical problems; run-off characteristics of natural streams; probabilistic models; control structures; economic analysis; production function; project optimization; energy dissipators; sediment transportation; elements of river engineering; navigation; control of floods; computer modelling application. Design examples. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.

CIVI 490 *Capstone Civil Engineering Design Project* (4 credits)

Prerequisite: Minimum of 75 credits in BEng (Civil) including ENGR 301; CIVI 361, 390; BCEE 344, 345. The project of each team will encompass the integrated design of at least two sub-disciplines of civil engineering to achieve high performance at reasonable cost. Through case studies and literature survey, students learn the information gathering and decision/design process, problem resolution, and aspects related to management, teamwork, and communication. Students registering for this course must contact the course coordinator for the detailed procedure. Lectures: two hours per week, two terms.

NOTE: Students will work in groups under direct supervision of a faculty member.

CIVI 498 *Topics in Civil Engineering* (3 credits)

Prerequisite: Permission of the Department. This course may be offered in a given year upon the recommendation of the Department and approval of GCS Council. The course content may vary from offering to offering and will be chosen to complement the available elective courses. Lectures: three hours per week.

COMPUTER ENGINEERING

COEN 212 *Digital Systems Design I* (3.5 credits)

Prerequisite: MATH 204 (Cegep Mathematics 105). Modulo arithmetic: representations of numbers in binary, octal and hexadecimal formats; binary arithmetic. Boolean algebra: theorems and properties, functions, canonical and standard forms. Logic gates and their use in the realization of Boolean algebra statements; logic minimization, multiple output circuits. Designing with MSI and LSI chips, decoders, multiplexers, adders, multipliers, programmable logic devices. Introduction to sequential circuits; flip-flops. Completely specified sequential machines. Machine equivalence and minimization. Implementation of clock mode sequential circuits. Lectures: three hours per week. Tutorial: two hours per week. Laboratory: 15 hours total.

NOTE: Students who have received credit for COEN 312 may not take this course for credit.

COEN 231 *Introduction to Discrete Mathematics* (3 credits)

Prerequisite: MATH 204 (Cegep Mathematics 105). Fundamentals of logic: basic connectives and truth tables; logical equivalence; the laws of logic; logical implication; rules of inference; the use of quantifiers; proofs of theorems. Sets: the laws of set theory. Boolean algebra. Relation of Boolean algebra to logical and set theoretic operations. Modulo arithmetic: division algorithm. Induction and recursion: induction on natural numbers; recursive definitions. Functions and relations: cartesian products and relations; functions; function composition and inverse functions; equivalence relations. Elements of graph theory: basic definitions of graph theory; paths, reachability and connectedness; computing paths from their matrix representation; traversing graphs represented as adjacency lists; trees and spanning trees. Finite-state machines (FSM) deterministic and nondeterministic machines; regular languages; FSM with output; composition of FSM. Lectures: three hours per week. Tutorial: one hour per week.

COEN 243 *Programming Methodology I* (3.5 credits)

Prerequisite: MATH 204 (Cegep Mathematics 105). This course is an introduction to computers and programming paradigms. Essential topics from procedural programming languages are discussed such as key elements, reserved words and identifiers, data types and declarations, statements, arithmetic expressions, and different modes of execution. The course covers flow control using If-Else and Switch statements, repetition using loops, recursive functions, pointers, references and dynamic data structures and function pointer. The course material also includes Lambda expression, data structures, built-in arrays, template arrays and vectors, n-dimensional vectors, sorting and searching. Students learn object-oriented programming, user-defined classes, class attributes and methods, object creation, use and destruction. Students are also introduced to exception handling and UML class diagrams. Lectures: three hours per week. Tutorial: two hours per week. Laboratory: 15 hours total.

NOTE: Students who have received credit for COMP 248, MIAE 215 or MECH 215 may not take this course for credit.

COEN 244 *Programming Methodology II* (3 credits)

Prerequisite: COEN 243 or MECH 215 or MIAE 215. This course covers advanced topics in computer programming. The course reviews object-oriented programming and further concepts, and revisits pointers. The following topics are covered: operator overloading (regular and advanced usage), fundamentals of file and stream processing. The course also covers class composition and inheritance (regular and advanced usage), virtual functions, polymorphism, static and dynamic binding and abstract classes. A case study of a small-scale object-oriented project along with simplified analysis, design and implementation are discussed. Other topics in the course include files and streams, exception handling (advanced usage), templates (class templates, template instantiation and type binding), sequence containers and STL algorithms, UML modelling and an introduction to open software repository. Lectures: three hours per week. Tutorial: two hours per week.

NOTE: Students who have received credit for COMP 249 may not take this course for credit.

COEN 311 *Computer Organization and Software* (3.5 credits)

Prerequisite: COEN 212, 243. Introduction and terminology. Review of data representation and arithmetic. Floating-point representation and arithmetic. Functional units: CPU, memory, I/O, computer operation. Machine programming fundamentals: instruction structure, addressing modes, the assembly process, examples of architectures. Case study of a microprocessor architecture: programming model, assembler and addressing modes, instruction set and formats; programming examples. Stacks, subroutines, macros, exceptions, interrupts. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: 15 hours total.

COEN 313 *Digital Systems Design II* (3.5 credits)

Prerequisite: COEN 212, 231. Two-level and multi-level logic optimization techniques. Hardware description languages (VHDL) for synthesis and simulation. Asynchronous design. Algorithmic state machines. Clocking and clock skew. Metastability. Self-timed concepts. Finite state machine (FSM) optimization. State reduction. FSM partitioning. Programmable logic devices and field programmable gate arrays. Data path and control design for processors. Testing issues. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: 15 hours total.

COEN 316 *Computer Architecture and Design* (3.5 credits)

Prerequisite: COEN 311, 313. Review of basic computer architecture designs. Fundamentals of computer design and performance. Cost issues. Instruction set design principles. Memory hierarchies: registers, caches, and virtual memories. Basic processor implementation issues. High performance computing issues such as pipelining, superscalar, and vector processing. Input/output subsystem designs. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: 15 hours total.

COEN 317 *Microprocessor-Based Systems* (3.5 credits)

Prerequisite: COEN 311 or COMP 228 or SOEN 228; COEN 313. This course covers the following topics: introduction to microprocessor interfacing; bus functions, bus interconnections, synchronous and asynchronous bus; signal flow, data transfer and memory Interfacing; parallel, serial, high-speed, analog interfacing; secure Digital Card Interface; the interrupt system; bus arbitration and DMA; data Acquisition Systems Network Interfacing. Lectures: three hours per week. Tutorials: one hour per week. Laboratory: 15 hours total.

NOTE: Students who have received credit for COEN 417 may not take this course for credit.

COEN 320 *Introduction to Real-Time Systems* (3 credits)

Prerequisite: COEN 346 or COMP 346. Fundamentals of real-time systems: definitions, requirements, design issues and applications. Real-time operating systems (RTOS) feature: multi-tasking, process management, scheduling, interprocess communication and synchronization, real-time memory management, clocks and timers, interrupt and exception handling, message queues, asynchronous input/output. Concurrent programming languages: design issues and examples, POSIX threads and semaphores.

Introduction to real-time uniprocessor scheduling policies: static vs. dynamic, pre-emptive vs. non-pre-emptive, specific techniques — rate-monotonic algorithm, earliest-deadline-first, deadline monotonic, least-laxity-time-first; clock-driven scheduling. Design and specification techniques — Finite state machine based State-chart, Dataflow diagram, Petri nets. Reliability and fault-tolerance. Case studies of RTOS — QNX, VxWorks, and research prototypes. Lectures: three hours per week. Tutorial: one hour per week.

COEN 346 *Operating Systems* (3.5 credits)

Prerequisite: COEN 311; COMP 352 or COEN 352. The evolution, architecture, and use of modern operating systems (OS). Multi-tasking, concurrency and synchronization, IPC, deadlock, resource allocation, scheduling, multi-threaded programming, memory and storage managements, file systems, I/O techniques, buffering, protection and security, the client/server paradigm and communications. Introduction to real time operating systems. Students write substantial programs dealing with concurrency and synchronization in a multi-tasking environment. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: 15 hours total.

NOTE: Students who have received credit for COMP 346 may not take this course for credit.

COEN 352 *Data Structures and Algorithms* (3 credits)

Prerequisite: COEN 231, 244. Mathematical introduction: mathematical induction, program analysis, and algorithm complexity. Fundamental data structures: lists, stacks, queues, and trees. Fundamental algorithms: hashing and sorting. Graph structures and algorithms. Overview of algorithm design techniques, including greedy algorithms, divide and conquer strategies, recursive and backtracking algorithms, and heuristics. Application of data structures and algorithms to engineering. Lectures: three hours per week. Tutorial: one hour per week.

NOTE: Students who have received credit for COMP 352 may not take this course for credit.

COEN 366 *Communication Networks and Protocols* (3.5 credits)

Prerequisite: COEN 346. The main objectives of the course are an introduction to computer networks, architectures, protocols, and their fundamentals. Topics covered in the course include communications protocols basics, flow control, error detection and error control techniques, network topologies including local area networks (LANs) and wide area networks (WANs), layered architecture standards (OSI and TCP/IP), standard protocols, and their fundamentals, application and socket programming. Lectures: three hours per week. Laboratory: 15 hours total.

NOTE: Students who have received credit for ELEC 366, ELEC 463 or COEN 445 may not take this course for credit.

COEN 390 *Computer Engineering Product Design Project* (3 credits)

Prerequisite: Minimum of 45 credits in BEng (Computer): COEN 311, 352; ENGR 290. The Product Design Project reinforces skills introduced in ENGR 290, which include teamwork, project management, engineering design for a complex problem, technical writing, and technical presentation in a team environment. It also introduces students to product development. Students are assigned to teams and each team develops, defines, designs and builds a system and/or device under broad constraints set by the Department. Students present their product definition and design, and demonstrate that their system/device works at the end of the term. Tutorial: two hours per week. Equivalent laboratory time: six hours per week.

NOTE: All written documentation must follow the Concordia Form and Style guide. Students are responsible for obtaining this document before beginning the project.

COEN 413 *Hardware Functional Verification* (3 credits)

Prerequisite: COEN 313. Review of hardware design languages. Introduction to functional verification. Design for verification. Writing test benches, simulation engines, and coverage metrics. Introduction to verification languages. Verification plan: strategies, test cases, test benches. Modelling verification environments. Modelling input relations, intervals, events. Introduction to formal verification tools. Lectures: three hours per week.

COEN 415 *Digital Electronics* (3.5 credits)

Prerequisite: ELEC 311. This course covers analysis and simulation of basic digital circuit blocks, in particular, CMOS, BiCMOS and ECL technologies. The focus is on the electronics aspect of digital circuits. Combinational and sequential circuit units, including logic gates, flip-flops, signal generators, static and dynamic memories, and interconnections are discussed. Other topics include performance analysis in terms of switching speeds, power dissipation, noise immunity, and fan-in and fan-out. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: 15 hours total.

NOTE: Students who have received credit for COEN 315 may not take this course for credit.

COEN 421 *Embedded Systems Design* (4 credits)

Prerequisite: COEN 317, 320; SOEN 341. Embedded systems, foundations for cyber-physical systems design. Embedded HW architectures, sensors, actuators, processors. IO and peripherals, memory architectures, interfacing memory and peripheral. Hardware-software partitioning, software transformations, floating to fixed point conversion, loop transformations, code compaction, low-power design and embedded system testing. Lectures: three hours per week. Laboratory: 30 hours total.

COEN 422 *Cyber-Physical Systems* (3 credits)

Prerequisite: COEN 320; ELEC 372. Models of computation for cyber-physical systems. Models for computation and physical systems. Discrete event dynamic models, finite-state machines (FSMs). Extended FSMs, statecharts, petri nets. Continuous variable models. Scheduling and optimization of process networks, hybrid models. Specification, simulation and performance analysis of cyber-physical systems. Relationship of program execution with physical time constants. Lectures: three hours per week.

COEN 424 *Programming on the Cloud* (3 credits)

Prerequisite: COEN 346. Autonomy of cloud computing, service and business models, data centres and virtualization. CAP theorem, REST API and data models. Map reduce and programming model of distributed data processing on computer clusters. Distributed file systems for computer clusters, development environments and tools on clouds. Cloud-based data access and query. Cloud application design principles. Lectures: three hours per week.

COEN 432 *Applied Evolutionary and Learning Algorithms* (3 credits)

Prerequisite: COEN 352 or COMP 352. Heuristic learning algorithms applied to real-world problems of design, classification, prediction and abstraction. Genetic algorithms, genetic programming, evolutionary strategies, generative and developmental systems, artificial life approaches, swarm intelligence, self-modifying programs, tabu search, simulated annealing and support vector machines, introduction to deep learning architectures. Examples of practical applications and challenges focused on biological and biomedical engineering. Lectures: three hours per week.

COEN 433 *(also listed as BIOL 475)*

Biological Computing and Synthetic Biology (3 credits)

Prerequisite: COEN 212, 244. Introduction to the cell and the genome. Foundations of synthetic biology and ethics. Synthetic genomes and metabolic engineering. Model organisms, such as *E. coli* bacteria and synthetic cells, self-replicating cells man-made from cloned genes, a cellular membrane and the basic elements of RNA and protein synthesis. Designing computational devices for implementation in biological cells. Introduction to modelling and computer simulation of gene regulatory networks. Methods of building and testing gene regulatory networks within and without cells. Expanding functionality via inter-cellular signaling. Basic interfacing to electronic sensors and actuators. Landmark and interesting applications of synthetic biology in computer engineering and other disciplines. Lectures: three hours per week.

NOTE: Students who have received credit for BIOL 475 or for this topic under a BIOL 498 number may not take this course for credit.

COEN 434 *(also listed as BIOL 476)*

Microfluidic Devices for Synthetic Biology (3 credits)

Prerequisite: COEN 244 and ENGR 290; or BIOL 261 and COMP 249. This course introduces students to microfluidic components (pumps, valves, automation) programming microfluidics, paradigms, and applications for chemical and biological analysis. Introduction to synthetic biology; biological parts and their properties, network structure and pathway engineering, synthetic networks, manipulating DNA and measuring responses, basic behaviour of genetic circuits, building complex genetic networks; integration of microfluidics and synthetic biology; economic implications. Lectures: three hours per week.

NOTE: Students who have received credit for BIOL 476 or for this topic under a BIOL 498 number may not take this course for credit.

COEN 446 *Internet of Things* (3 credits)

Prerequisite: COEN 366 or 445 or ELEC 366 or 463. This course covers the essential principles and techniques for the design and applications of IoT. The topics include IoT concepts and its relations to Internet and devices; business models and applications including health monitoring and smart cities; devices and their connection including wireless sensor networks (WSN); constraints and requirements; network access protocols; routing protocols (RPL), transport layer and message queuing telemetry transport (MQTT); constrained application protocol (CoAP) and efficient XML interchange (EXI); protocol stack and contrast with Internet stack; security threats. Other topics include introduction to IoT analytics; platforms and tools. Lectures: three hours per week.

COEN 447 *Software-Defined Networking* (3 credits)

Prerequisite: COEN 317; COEN 366 or 445 or ELEC 366 or 463. This course equips students with an understanding of the principles and techniques underpinning the design of software-defined networks. Topics include control and data planes, centralized vs. distributed control; network operating systems, network function virtualization; programmable data planes, network processors, programmable switch pipelines; high-level data-plane programming with P4 and data-plane development kit. This course includes a software-defined network emulation project. Lectures: three hours per week.

COEN 448 *Software Testing and Validation* (3.5 credits)

Prerequisite: SOEN 341. This course starts with an overview of the three phases and deliverables of a project, and then discusses validation vs. verification, reviews and walk-through. Topics also include acceptance testing, integration testing, module testing. The course covers writing stubs, performance testing, the role of formal methods, code inspection, defect tracking and causality analysis. It concludes with software metrics and quality management. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: 15 hours total.

NOTE: Students who have received credit for COEN 345 may not take this course for credit.

COEN 451 *VLSI Circuit Design* (4 credits)

Prerequisite: COEN 212; ELEC 311. Analysis and design of electronic circuits using Very Large Scale Integration (VLSI) technologies. Physical design of MOS digital circuits. CMOS circuit schematic and layout. CMOS processing technology, design rules and CAD issues. Physical layers and parasitic elements of CMOS circuits. Characterization and performance evaluation. Constraints on speed, power dissipation and silicon space consumption. Design and implementation of CMOS logic structures, interconnections and I/O structures. Circuit design project using a specified CMOS technology. Lectures: three hours per week. Laboratory: 30 hours total.

COEN 490 *Capstone Computer Engineering Design Project* (4 credits)

Prerequisite: Minimum of 75 credits in BEng (Computer) or permission of the Department; ENGR 301, 371; COEN 390; SOEN 341. Students are assigned to groups, and work together under faculty supervision to solve a complex interdisciplinary design problem

— typically involving communications, control systems, electromagnetics, power electronics, software design, and/or hardware design. The project fosters teamwork between group members and allows students to develop their project management, technical writing, and technical presentation skills. Tutorial: one hour per week, two terms. Equivalent laboratory time: four hours per week, two terms.

NOTE: All written documentation must follow the Concordia Form and Style guide. Students are responsible for obtaining this document before beginning the project.

COEN 498 *Topics in Computer Engineering* (3 credits)

Prerequisite: Permission of the Department. The course, when offered, will include topics which complement elective courses in computer engineering and computer science. Lectures: three hours per week.

ELECTRICAL ENGINEERING

ELEC 242 *Continuous-Time Signals and Systems* (3 credits)

Prerequisite: ELEC 273; ENGR 213. This course covers continuous-time signals and systems theory including properties of continuous-time systems, linear time-invariant (LTI) systems, impulse response and convolution and systems based on linear constant-coefficient differential equations. The following transforms are introduced: Fourier series representation of periodic signals, the Fourier transform representation of signals and systems, the inverse Fourier transform, bilateral Laplace transform, unilateral Laplace transform and inverse Laplace transform. Other topics include zero-state and zero-input responses of linear constant-coefficient differential equation models, transfer function and block diagram representation of LTI systems, and time and frequency domain characteristics of ideal and non-ideal filters. Computer simulation using MATLAB is also introduced. Lectures: three hours per week. Tutorial: two hours per week.

NOTE: Students who have received credit for ELEC 264 may not take this course for credit.

ELEC 251 *Fundamentals of Applied Electromagnetics* (3 credits)

Prerequisite: ELEC 273 or ENGR 273; ENGR 233 previously or concurrently. Electric charge, Coulomb's law, electrostatic forces, electric field, Gauss' law, electric potential, stored energy. Dielectrics, properties of materials in electric fields. Electric current, conduction in a vacuum and in material media, displacement current, magnetic field of a current, force on a current-carrying wire, magnetic induction, electromotive force, energy stored in a magnetic field. Magnetism in material media, magnetic circuits. Time-varying fields. Capacitance, resistance, inductance, elements of electric circuits. Lectures: three hours per week. Tutorial: one hour per week.

ELEC 273 *Basic Circuit Analysis* (3.5 credits)

Prerequisite: ENGR 213 previously or concurrently; PHYS 205. Units: current, voltage, power, and energy. Elementary wave-forms. Time averages. Ohm's law. KVL and KCL. Ideal sources. Mesh and node analysis of resistive circuits. Network theorems. Inductors and capacitors and their response to the application of elementary waveforms. Transient response of simple circuits. Natural frequency and damping. Initial conditions. Steady state AC analysis: resonance, impedance, power factor. Delta and Y connections. Ideal operational amplifiers. Lectures: three hours per week. Tutorial: two hours per week. Laboratory: 15 hours total.

ELEC 275 *Principles of Electrical Engineering* (3.5 credits)

Prerequisite: ENGR 213 previously or concurrently; PHYS 205. Fundamentals of electric circuits: Kirchoff's laws, voltage and current sources, Ohm's law, series and parallel circuits. Nodal and mesh analysis of DC circuits. Superposition theorem, Thevenin and Norton Equivalents. Use of operational amplifiers. Transient analysis of simple RC, RL and RLC circuits. Steady state analysis: Phasors and impedances, power and power factor. Single and three phase circuits. Magnetic circuits and transformers. Power generation and distribution. Lectures: three hours per week. Tutorial: two hours per week. Laboratory: 15 hours total.

ELEC 311 *Electronics I* (3.5 credits)

Prerequisite: ELEC 273. Diodes: terminal characteristics of junction diodes; analysis of diode circuits; the small signal model and its application; operation in the reverse-breakdown region — Zener diodes; rectifiers, limiting and clamping circuits. Principle of signal amplification: small signal models; linearity; loading effects; cascaded amplifiers. MOSFETs: structure and physical operation; current-voltage characteristics; MOSFET as switch, DC analysis; biasing considerations; small signal analysis, models and parameters; three basic configurations: common gate, common source, common drain, or amplification. Overview of BJT circuits: structure and physical operation of BJT; DC analysis; biasing considerations: small signal analysis and parameters; basic configurations for amplification. PSPICE: laboratory pre-labs and extensive simulation exercises. Lectures: three hours per week. Tutorial: two hours per week. Laboratory: 15 hours total.

ELEC 312 *Electronics II* (3.5 credits)

Prerequisite: ELEC 311; ELEC 242 or 364. Differential and multi-stage amplifiers: differential pair; differential gain; common-mode gain and common-mode rejection ratio (CMRR) current mirrors. High frequency models: s-domain analysis, transfer functions; common gate, common source, common drain configurations; common base, common emitter, common collector configurations; wide-band amplifiers. Feedback: general feedback structure; properties of negative feedback; the four basic feedback configurations; loop gain and stability problems. Power amplifiers: classification and output stages; class A, B, C, and AB amplifiers; biasing the class AB amplifier. Introduction to filters, tuned amplifiers, oscillators and mixers. PSPICE: Laboratory pre-labs and extensive simulation exercises. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: 15 hours total.

ELEC 321 *Introduction to Semiconductor Materials and Devices* (3.5 credits)

Prerequisite: CHEM 205; ENGR 213. Fundamentals underlying optical and electronic devices. The structure and growth of crystals. The energy band model for elemental and compound semiconductors. Electronic and optical properties of semiconductors. Electroluminescence and photoluminescence. The semiconductor in equilibrium. Carrier transport and non-equilibrium phenomena. Introductions to junctions and devices. The laboratory demonstrates the basic electrical and optical properties of semiconductor materials. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: 15 hours total.

ELEC 331 *Fundamentals of Electrical Power Engineering* (3.5 credits)

Prerequisite: ELEC 251, 273. Review of fundamentals of AC circuit analysis. Overview of power systems. Three-phase circuits: balanced three-phase circuits with star and delta connected loads, power measurements. Magnetic circuits. Transformers. Power conversion techniques: single phase AC/DC rectifiers, DC/DC choppers and DC/AC converters. DC machines: Operating principle, separately excited DC motor, torque speed characteristics and control methods using rectifiers and choppers. Induction machines: Theory of three-phase induction machines, equivalent circuit parameters, efficiency, torque speed characteristics and control methods using inverters. Overview of power distribution systems. Safety codes. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: 15 hours total.

ELEC 342 *Discrete-Time Signals and Systems* (3.5 credits)

Prerequisite: ELEC 242 or 264. Basic material includes discrete vs. continuous-time signals, discrete-time signals, elementary signals and signal operations, discrete-time systems, properties of discrete-time systems and interconnections of systems. Time-domain analysis of discrete-time systems is covered including finite difference equation representation of systems, linear time-invariant (LTI) systems, unit impulse response and convolution, sliding tape method for convolution, periodic convolution, properties of convolution, and properties of LTI systems. The next area is Fourier domain analysis including Discrete-Time Fourier Series (DTFS), Discrete-Time Fourier Transform (DTFT), properties of DTFS and DTFT, frequency response of LTI systems, and continuous and discrete-time Fourier transforms. Conversion of continuous-time to discrete-time signals is covered including ideal impulse train sampling, the sampling theorem, effect of sampling in the frequency and time domains graphically and algebraically, anti-aliasing pre-filter, reconstruction of band limited signal from its samples, discrete-time processing of continuous-time signals, quantization, uniform quantization, quantization noise, granular vs. overload noise, and design of uniform quantizers. The Discrete Fourier Transform (DFT) is developed along with the relationship between the DFT and the DTFT. Also covered is the relationship between the DFT and the Fast Fourier Transform (FFT). The z-transform (ZT) is covered with topics including properties, poles and zeros of rational ZTs, inverse and unilateral z-transforms (UZT), Region of Convergence (ROC), and relationship between ZT and DTFT. Filtering topics include LTI systems as frequency-selective filters, ideal filters, Finite Impulse Response (FIR) vs. Infinite Impulse Response (IIR) filters, linear phase FIR filters, filter specification, and designing filters with MATLAB. The course closes with FIR filter design with windowing. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: 15 hours total.

NOTE: Students who have received credit for ELEC 364 may not take this course for credit.

ELEC 351 *Electromagnetic Waves and Guiding Structures* (3 credits)

Prerequisite: ELEC 251, 242; ENGR 233. This course covers the following topics: partial differential equations, Maxwell's equations; differential forms of the laws of electromagnetism; boundary conditions; power and energy; uniform plane waves; transmission line theory; rectangular waveguides; antennas. Lectures: three hours per week. Tutorial: one hour per week.

ELEC 365 *Complex Variables and Partial Differential Equations* (3 credits)

Prerequisite: ENGR 213, 233. Review of complex arithmetic. Analytic functions. Taylor and Laurent series. Residue theory. Fourier series. Partial differential equations. Applications to Laplace, heat, and wave equations. Bessel and Legendre functions. Lectures: three hours per week. Tutorial: one hour per week.

NOTE: Students who have received credit for ELEC 261 or 362 may not take this course for credit.

ELEC 366 *Telecommunication Networks* (3.5 credits)

Prerequisite: COEN 352; ELEC 342 or 364; ENGR 371. The course introduces communication network functions/services and the circuit and packet-switching approaches for network design. It covers transmission systems, multiplexing, switches, signaling and traffic control in circuit-switched networks including cellular networks. It introduces the layered network architecture for packet-switching: peer-to-peer ARQ protocols and data-link controls; TCP/IP architecture: Internet and transport protocols. It covers multiple access communications: Aloha, CSMA, reservation schemes, polling, token passing rings, wireless LANs and LAN bridges. It includes application and socket programming. Lectures: three hours per week. Laboratory: 15 hours total.

NOTE: Students who have received credit for COEN 366 or COEN 445 or ELEC 463 may not take this course for credit.

ELEC 367 *Introduction to Digital Communications* (3.5 credits)

Prerequisite: ELEC 342 or 364; ENGR 371. Analog communications and frequency multiplexing; pulse-code-modulation and time multiplexing; additive white Gaussian noise; matched filter and correlator receiver; maximum likelihood receiver and error probability; intersymbol interference, pulse shaping filter; Signal Space Analysis; Union Bound on the probability of error; Pass-band communication Systems; coherent and non-coherent communication systems. Introduction to synchronization. Lectures: three hours per week. Laboratory: 15 hours total. Tutorial: one hour per week.

NOTE: Students who have received credit for ELEC 462 may not take this course for credit.

ELEC 372 *Fundamentals of Control Systems* (3.5 credits)

Prerequisite: ELEC 242 or 364. Mathematical models of control systems. Characteristics, performance, and stability of linear feedback control systems. Root-locus methods. Frequency response methods. Stability in the frequency domain. Design and compensation of feedback control systems. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: 15 hours total.

NOTE: Students who have received credit for AERO 371 or ENGR 372 or MECH 371 may not take this course for credit.

ELEC 390 Electrical Engineering Product Design Project (3 credits)

Prerequisite: Minimum of 45 credits in BEng (Electrical); COEN 352; ELEC 311; ENGR 290. The Product Design Project reinforces skills introduced in ENGR 290, which include teamwork, project management, engineering design for a complex problem, technical writing, and technical presentation in a team environment. It also introduces students to product development. Students are assigned to teams and each team develops, defines, designs and builds a system and/or device under broad constraints set by the Department. Students present their product definition and design, and demonstrate that their system/device works at the end of the term. Tutorial: two hours per week. Equivalent laboratory time: six hours per week.

NOTE: All written documentation must follow the Concordia Form and Style guide. Students are responsible for obtaining this document before beginning the project.

ELEC 413 Mixed-Signal VLSI for Communication Systems (4 credits)

Prerequisite: ELEC 312, 372. Overview of wireline communication links, mechanisms of signal degradation, modulation formats, TX/RX synchronization options, IC technology limitations, transmitter front-end circuits, receiver front-end circuits, decision circuits, clock and data recovery systems, phase-locked loops, jitter, continuous-time and discrete-time equalizers, system metrics. Lectures: three hours per week. Laboratory: 30 hours total.

NOTE: Students who have received credit for this topic under an ELEC 498 number may not take this course for credit.

ELEC 421 Solid State Devices (3.5 credits)

Prerequisite: ELEC 321. Junction theory (PN junctions, Schottky and ohmic contacts, hetero-junctions). Structures and characteristics of diodes, solar cells, bipolar transistors, and fundamentals of MOSFETs. Planar silicon junctions and transistors will be designed, fabricated and evaluated in the laboratory, including resistivity measurements, semiconductor cleaning, oxidation, diffusion, photolithography, etching, metallization, and comparison of design with experimental results. Lectures: three hours per week. Laboratory: 15 hours total.

ELEC 422 Design of Integrated Circuit Components (3.5 credits)

Prerequisite: ELEC 421. Structures, characteristics and design of MOS capacitors and MOSFETs. FinFETs, SOI FETs, velocity-modulation transistors, and HFETs. Role of strain in operation of modern FETs. Planar MOS devices, including capacitors and MOSFETs will be designed, fabricated, and evaluated in the laboratory. Lectures: three hours per week. Laboratory: 15 hours total.

ELEC 423 Introduction to Analog VLSI (4 credits)

Prerequisite: ELEC 312. CMOS transistor layout considerations, design rules, circuit extraction. MOSFET modelling, I-V equations, AC equivalent circuits for high-frequency operation, computer-based simulation. Analysis and design of small-scale integrated circuit building blocks including MOS switch, active resistor, current source, current mirror, voltage amplifiers, voltage-reference circuits, multipliers. Analysis and design of medium-scale integrated circuit building blocks including op-amps, fully-differential op-amp and common mode feedback circuits, transconductance amplifiers, transimpedance amplifiers, comparators. Noise analysis. Mismatch analysis and modelling, offset removal techniques. Analog VLSI system examples. Lectures: three hours per week. Laboratory: 30 hours total.

ELEC 424 VLSI Process Technology (3.5 credits)

Prerequisite: ELEC 311, 321. Introduction to basic VLSI technologies; crystal growth, thermal oxidation, diffusion, ion implantation, chemical vapour deposition, wet and dry etching, and lithography. Layout, yield, and VLSI process integration. The lab demonstrates a semiconductor device fabrication process. Lectures: three hours per week. Laboratory: 15 hours total.

ELEC 425 Optical Devices for High-Speed Communications (3.5 credits)

Prerequisite: ELEC 321, 351. Optical properties of semiconductors. Fundamental principles for understanding and applying optical fibre technology. Fundamental behaviour of the individual optical components and their interactions with other devices. Lasers, LEDs, optical fibres, light detectors, optical switches. Concepts of WDM and DWDM. Components required for WDM and DWDM. A comprehensive treatment of the underlying physics: noise and distortion in optical communications, light polarization, modulation and attenuation. Lectures: three hours per week. Laboratory: 15 hours total.

ELEC 430 Electrical Power Equipment (3.5 credits)

Prerequisite : ELEC 331. Components of a transmission system. Transmission line; modelling and parameters. Transformers: equivalent circuits, losses, connections and protection. Breakers: operation and design. Compensation equipment: capacitors, inductors, series and shunt connections. Insulation coordination. Lectures: three hours per week. Laboratory: 15 hours total.

NOTE: This course is usually offered in the French language.

ELEC 431 Electrical Power Systems (3.5 credits)

Prerequisite: ELEC 331. Inductance, capacitance, resistance of polyphase transmission lines; current and voltage relations of transmission lines; load flow studies; symmetrical and unsymmetrical faults; power system stability. Lectures: three hours per week. Laboratory: 15 hours total.

ELEC 432 Control of Electrical Power Conversion Systems (3.5 credits)

Prerequisite: ELEC 331, 372. Basic considerations and control requirements. Control system principles and structures. Controller characteristics and operation. Static power conversion systems. Electromechanical systems and electrical machine modelling. Control system design. Applications to electric motor drives and typical power conversion systems. Lectures: three hours per week. Laboratory: 15 hours total.

NOTE: This course is usually offered in the French language.

ELEC 433 Power Electronics (3.5 credits)

Prerequisite: ELEC 311, 331. Review of basic electrical concepts. Power electronic systems. Power semiconductor switches. AC controllers. Line frequency AC-DC converters: diodes and thyristor circuits. DC-DC converters. DC-AC converters. Utility applications: STATCOM and power electronic interfaces. Industrial and utility applications. Lectures: three hours per week. Laboratory: 15 hours total.

ELEC 434 Behaviour of Power Systems (3.5 credits)

Prerequisite: ELEC 331. Introduction: classification of phenomena, structure of power systems. Review of component models: lines, transformers, electrical machines and load. Excitation systems of machines. Steady-state operation. Transient stability, voltage stability and small signal stability. Compensation methods: stabilizer, series and shunt compensators. Sub-synchronous resonances. Transient electromagnetic phenomena. Methods and tools for numerical simulation. Lectures: three hours per week. Laboratory: 15 hours total.

NOTE: This course is usually offered in the French language.

ELEC 435 Electromechanical Energy Conversion Systems (3.5 credits)

Prerequisite: ELEC 331. Lumped parameter concepts of electromechanics. Energy, co-energy in the derivation of torques and forces. Examples of electric machines: dc, synchronous and induction types. Steady-state, transient and stability analysis. Power electronic controllers. Lectures: three hours per week. Laboratory: 15 hours total.

ELEC 436 Protection of Power Systems (3.5 credits)

Prerequisite: ELEC 331. General aspects of protection systems. Measurement transformers. Grounding. Overcurrent and ground fault protection. Protection of transformers, shunt capacitors and buses. Protection of transmission lines. Telecommunication for protection and automation systems. Protection of inverters. Protection of distribution networks. Lectures: three hours per week. Laboratory: 15 hours total.

NOTE: This course is usually offered in the French language.

ELEC 437 Renewable Energy Systems (3 credits)

Prerequisite: ELEC 331. Electrical basics and models of solar energy (photo-voltaics), electrical power from wind energy, electrical power from water, including wave energy, tidal energy, micro-hydro. Case studies, for example the application of solar PV to street lighting. Electrical engineering design implications. Design assignments. Lectures: three hours per week.

NOTE: Students who have received credit for this topic under an ELEC 498 number may not take this course for credit.

ELEC 438 Industrial Electrical Systems (3.5 credits)

Prerequisite: ELEC 331. Structures of industrial power systems. Voltage levels. Electric installations, codes and standards. Short-circuits, protection and coordination. Grounding. Power quality. Power factor, tariffs and energy management. Lectures: three hours per week. Laboratory: 15 hours total.

NOTE: This course is usually offered in the French language.

ELEC 439 Hybrid Electric Vehicle Power System Design and Control (3 credits)

Prerequisite: ELEC 331. Introduction to Electric Vehicles (EV). Hybrid Electric Vehicles (HEV). Vehicle design fundamentals. Traction motors for EV/HEV propulsion. On-board energy sources and storage devices: high-voltage traction batteries, fuel cells, ultra-capacitors, flywheels. Power electronic converters and control. Various EV/HEV/Fuel Cell Vehicle topologies and modelling. Energy management strategies. Practical design considerations. Engineering impact of electric, hybrid electric, and fuel cell vehicles. Lectures: three hours per week.

ELEC 440 Controlled Electric Drives (3.5 credits)

Prerequisite: ELEC 331, 372. Elements of a drive system, characteristics of common mechanical systems, drive characteristics, operation in one, two, or four quadrants. Fully controlled rectifier drives, braking of DC motors, control of DC motors using DC/DC converters. Control of polyphase induction motors, voltage-source and current-source inverter drives, frequency-controlled induction motor drives, introduction to vector control of induction motor drives, field oriented control, sensor-less operation. Control of synchronous motors, permanent magnet motors. Switched reluctance motor drives, stepper motors. Brushless DC motor drives, low-power electronic motor drives. Lectures: three hours per week. Laboratory: 15 hours total.

NOTE: Students who have received credit for this topic under an ELEC 498 number may not take this course for credit.

ELEC 441 Modern Analog Filter Design (3.5 credits)

Prerequisite: ELEC 342 or 364. Review of network analysis. Magnitude and frequency scaling. Magnitude and phase approximation in synthesis of filter functions. Second-order active RC filters. Synthesis of all-pole LC ladder filters. Second-order switched-capacitor filters. Realization of high-order active filters. Current mode filters. Switched-current filters. Integrated circuit filters. Lectures: three hours per week. Laboratory: 15 hours total.

ELEC 442 Digital Signal Processing (3 credits)

Prerequisite: ELEC 342 or 364; ENGR 371. The course covers transform analysis of linear time-invariant (LTI) systems involving inverse systems, all-pass and minimum phase systems, and linear-phase finite impulse response (FIR) systems. Implementation of discrete-time LTI systems including structures for FIR and IIR (infinite impulse response) filters, finite word length effects and quantization of filter coefficients is also covered. The topic of digital filter design, i.e. FIR filter design with window and optimization methods and IIR filter design by impulse invariance, bilinear transformation, and frequency transformation is introduced. Also

introduced is the multirate signal processing covering decimation and interpolation of discrete-time signals, polyphase structures and filter banks. The course also deals with discrete Fourier transform (DFT), including the properties and computations of DFT, the sampling of discrete-time Fourier transform, linear convolution using DFT and Fourier analysis of signals using DFT. The course closes with random signal processing basics, covering random processes and signals, mean and covariance, correlation and power spectral density, and stationary signal passing through LTI systems. Lectures: three hours per week.

ELEC 443 Electric Power Distribution Networks (3 credits)

Prerequisite: ELEC 331. This course covers the following topics: fundamentals of distribution systems; overhead lines and cables, physical characteristics; neutral network; distribution protection; protection coordination, equipment failures; service continuity, norms, fault duration and damage; network architectures; distributed generation, network integration; power quality, connection requirements, harmonics, voltage sag, flicker; distribution network analysis software, unbalanced power flow, faulted operation. Lectures: three hours per week. Laboratory: 12 hours total.

NOTE: This course is usually offered in the French language.

ELEC 444 Medical Image Processing (3 credits)

Prerequisite: ELEC 342 or 364. Principles and techniques used in the processing and analysis of medical images. Image quality metrics, denoising medical images, quantification, rigid and deformable registration. Similarity metrics such as mutual information (MI). Images from the most common medical imaging modalities (X-ray, CT, MRI and ultrasound) will be used. Lectures: three hours per week.

ELEC 445 Biological Signal Processing (3 credits)

Prerequisite: ELEC 342. This course covers signal processing through discussion of current bioengineering activities which rely on signal processing and include assessment of neural function with simultaneous collection of electroencephalogram (EEG) and functional MRI data; the non-invasive assessment of cardiac autonomic regulation using electrocardiography; assessment of neural function using near-infrared spectroscopy (NIRS); assessment of muscle activity using electromyography (EMG). Topics include modern spectral analysis, time-frequency analysis (short-time Fourier transforms and wavelets); signal modelling; multivariate analyses and adaptive filtering. Lectures: three hours per week.

NOTE: Students who have received credit for this topic under an ELEC 498 number may not take this course for credit.

ELEC 446 Electrical Power Generation (3 credits)

Prerequisite: ELEC 431. This course covers the following topics: primary energy resources, conventional and renewable; electric power generation principles; rotating and static power conversion, frequency and voltage control; synchronous generators, design and operation; generation control; static power converter interfaces, principles and operation; wind energy conversion principles, generator control and wind farm control; energy storage control and integration; generation protection; distributed generation interconnection requirements. Lectures: three hours per week. Laboratory: nine hours total.

ELEC 453 Microwave Engineering (3.5 credits)

Prerequisite: ELEC 351. Properties of waveguides, striplines, and microstrips. Scattering parameters. Butterworth and Chebyshev impedance transformers. Microwave couplers, cavities, and Fabry-Perot resonators. Periodic structures. Microwave filter design. Faraday rotation and non-reciprocal devices. Lectures: three hours per week. Laboratory: 15 hours total.

ELEC 455 Acoustics (3 credits)

Prerequisite: ELEC 351. Sound generation and propagation in elastic media; conversion between acoustical, electrical, and mechanical energy. Lumped-parameter approximations, sound in rooms, underwater acoustics, microphones; loudspeakers and audio communications problems; noise and vibration control problems. Lectures: three hours per week.

ELEC 456 Antennas (3.5 credits)

Prerequisite: ELEC 351. Antenna fundamentals and definitions. Radiation integrals. Dipoles and loops. Arrays. Antenna self and mutual impedance. Matching techniques. Travelling wave antennas. Broadband antennas. Equivalence principle. Aperture antennas. Antenna measurement techniques. Lectures: three hours per week. Laboratory: 15 hours total.

ELEC 457 Design of Wireless RF Systems (3 credits)

Prerequisite: ELEC 453. Introduction to wireless systems. Noise and distortion in microwave systems. Antennas and propagation. Amplifiers. Mixers. Transistor oscillators and frequency synthesizers. Modulation techniques. Receiver design. Use of RF CAD tools. Lectures: three hours per week.

ELEC 458 Techniques in Electromagnetic Compatibility (3 credits)

Prerequisite: ELEC 351. Introduction to EMC procedures, control plans, and specifications. Radiated and conducted susceptibility and emission testing. Introduction to EMC antennas, antenna concepts, electric and magnetic dipoles, biconical dipoles, conical log spiral antennas, setting up fields for susceptibility testing, measuring radiation from equipment. Coupled transmission lines, pulse propagation, closely spaced parallel transmission lines, capacitive coupling, inductive coupling, shielding against magnetic fields. Shielding and enclosures, electric and magnetic field screening mechanisms, shielding effectiveness, grounding considerations. EMC test facilities, screened rooms, TEM cells, signals and spectra, intermodulation, cross-modulation, the spectrum analyzer. Noise and pseudo-random noise, noise performance of measurement/receiving systems, noise equivalent bandwidth, noise figure, antenna noise temperature and S/N ratio. Lectures: three hours per week.

ELEC 464 *Wireless Communications* (3 credits)

Prerequisite: ELEC 367. Introduction to error control coding: linear block codes, syndrome-based decoding, coding vs. modulation, convolutional codes, Viterbi decoder. Communications link analysis. Introduction to cellular systems: frequency reuse, trunking and grade of services, sectoring and cell splitting, coverage and capacity. Modulation techniques for mobile communications. Mobile radio channels. Spread-spectrum techniques. Multiplexing and multiple access techniques. Wireless standards from first generation to fourth generation; OFDM: an architecture for the fourth generation. Lectures: three hours per week.

ELEC 465 *Networks Security and Management* (3.5 credits)

Prerequisite: COEN 366 or 445 or ELEC 366 or 463. This course covers two important areas of communication networks: network security and network management. In network security, topics include basic cryptography, authentication, message integrity, firewalls, security protocols, virtual private networks (VPNs), and security in wireless LANs. In network management, topics include network management architectures, ASN.1, Management Information Bases (MIBs), SNMP and its evolution. Lectures: three hours per week. Laboratory: 15 hours total.

ELEC 466 *Introduction to Optical Communication Systems* (3.5 credits)

Prerequisite: ELEC 351, 367. Overview of optical fibres and optical fibre communications. Signal propagation in optical fibres: attenuation, chromatic dispersion, mode coupling, and nonlinearities. Optical transmitters' characteristics and requirements for optical networks. Power launching and coupling: optical transmitter-to-fibre coupling, fibre-to-fibre joints, and optical fibre connectors. Optical receivers: basic structures, noise analysis, characteristics and requirements for optical networks. Digital/analog transmissions: link power budget, rise-time budget, line coding, error correction, and noise effects on transmissions. WDM concepts: operation principle of WDM. Optical amplifiers: characteristics and requirements for optical networks, amplifier noise, system applications, and wavelength conversion. Optical networks: basic topologies, SONET/SDH, broadcast-and-select WDM networks, wavelength-routed networks. Optical measurements: test equipments, attenuation/dispersion measurements, OTDR, eye pattern and OSA. Lectures: three hours per week. Laboratory: 15 hours total.

ELEC 470 *Broadcast Signal Transmission* (3 credits)

Prerequisite: ELEC 363 or 367. Topics include signal definition, human eye limitations, pixel representation schemes, interfaces serial digital interface (SDI), image formats (1080i, 720i, 4K, 8K), compression schemes: MPEG-2, MPEG-4, moving JPEG. Modulation techniques: QPSK, QAM, VSB. Advanced terrestrial transmission standards such as DVB-T2, ATSC-3. Satellite broadcasting standards such as DVB/S2. Path calculation: antennas, up and down conversion, solid state and travelling wave tube amplifiers. Transmission lines, waveguide and coaxial cable. Lectures: three hours per week.

NOTE: Students who have received credit for this topic under an ELEC 498 number may not take this course for credit.

ELEC 472 *Advanced Telecommunication Networks* (3.5 credits)

Prerequisite: COEN 366 or 445 or ELEC 366 or 463. This course covers Internet that has moved beyond the three "classical" services of email, file transfer and remote log-in to providing real-time multimedia communication. The course provides the basic building blocks for the students to understand the current capabilities and potential of high-speed Internet to support emerging Internet services. Review of Internet architecture is followed by quality of service (QoS) requirements and protocols such as differentiated services, integrated services, Resource reservation protocol (RSVP), and Multi protocol label switching (MPLS) to support QoS. Topics also include protocols and standards for voice over IP; H.323, Session Initiation Protocol (SIP) and Media Gateway Control Protocol (MGCP); and their interworking. Lectures: three hours per week. Laboratory: 15 hours total.

ELEC 473 *Autonomy for Mobile Robots* (3 credits)

Prerequisite: ELEC 372; ENGR 371. The course discusses application of autonomous wheeled robots such as autonomous cars, indoor robots, and (off-road) unmanned ground vehicles. Topics include robot motion models, robot odometry, robot sensor models (beam models of range finders and feature-based measurement models) and occupancy grid mapping. The course also covers state estimation for robot localization and introduction to simultaneous localization and mapping (SLAM). Assignments include algorithm implementation on a robot. Lectures: three hours per week.

NOTE: Students who have received credit for this topic under an ELEC 498 number may not take this course for credit.

ELEC 481 *Linear Systems* (3.5 credits)

Prerequisite: AERO 371 or ELEC 372 or MECH 371. Review of matrix algebra. State-space description of dynamic systems: linearity, causality, time-invariance, linearization. Solution of state-space equations. Transfer function representation. Discrete-time models. Controllability and observability. Canonical forms and minimal-order realizations. Stability. Stabilizability and pole placement. Linear quadratic optimal control. Observer design. Lectures: three hours per week. Laboratory: 15 hours total.

NOTE: Students who have received credit for ENGR 471 may not take this course for credit.

ELEC 482 *System Optimization* (3.5 credits)

Prerequisite: ENGR 391 or EMAT 391. Linear least squares. Properties of quadratic functions with applications to steepest descent method, Newton's method and Quasi-Newton methods for nonlinear optimization. One-dimensional optimization. Introduction to constrained optimization, including the elements of Kuhn-Tucker conditions for optimality. Least pth and mini-max optimization. Application of optimization techniques to engineering problems. Lectures: three hours per week. Laboratory: 15 hours total.

NOTE: Students who have received credit for ENGR 472 may not take this course for credit.

ELEC 483 *Real-Time Computer Control Systems* (3.5 credits)

Prerequisite: AERO 371 or ELEC 372; ELEC 342 or 364. Introduction to real-time computer control systems; a review of discrete-time signals and systems, difference equations, z-transform; sampled-data systems, sample and hold, discrete models;

discrete equivalents of continuous-time systems; stability analysis; design specifications; design using root locus and frequency response methods; implementation issues including bumpless transfer, integral windup, sample rate selection, pre-filtering, quantization effects and computational delay; scheduling theory and priority assignment to control processes, timing of control loops, effects of missed deadlines; principles and characteristics of sensors and devices, embedded processors, processor/device interface. Lectures: three hours per week. Laboratory: 15 hours total.

ELEC 490 Capstone Electrical Engineering Design Project (4 credits)

Prerequisite: Minimum of 75 credits in BEng (Electrical) or permission of the Department; ENGR 301, 371; COEN 311; ELEC 342 or 364; ELEC 390. Students are assigned to groups, and work together under faculty supervision to solve a complex interdisciplinary design problem — typically involving communications, control systems, electromagnetics, power electronics, software design, and/or hardware design. The project fosters teamwork between group members and allows students to develop their project management, technical writing, and technical presentation skills. Tutorial: one hour per week, two terms. Equivalent laboratory time: four hours per week, two terms.

NOTE: All written documentation must follow the Concordia Form and Style guide. Students are responsible for obtaining this document before beginning the project.

ELEC 498 Topics in Electrical Engineering (3 credits)

Prerequisite: Permission of the Department. This course may be offered in a given year upon the authorization of the Electrical and Computer Engineering Department. The course content may vary from offering to offering and will be chosen to complement elective courses available in a given year.

CONCORDIA INSTITUTE FOR AEROSPACE DESIGN AND INNOVATION

IADI 301 Undergraduate Aerospace Industry Project I (0 credit)

Prerequisite: Acceptance into CIADI. The activities associated with this course include participation in regular meetings at the Institute and with faculty and industry members, attendance at training sessions (as applicable), industry training and tours. A project is assigned to the students. Students are also required to prepare and present progress reports on their project. A final report of their project must be submitted to the director of CIADI. A grade of pass or fail will be awarded based on the evaluation of the above activities. All students accepted to CIADI are required to register for this non-credit course activity.

IADI 401 Undergraduate Aerospace Industry Project II (0 credit)

Prerequisite: Pass in IADI 301. The activities associated with this course deal with participation in regular meetings at the Institute and with faculty and industry members, attendance at training sessions (as applicable), industry training and tours. A project is assigned to the students. Students are also required to prepare and present progress reports on their project. A final report of their project must be submitted to the director of CIADI. A grade of pass or fail will be awarded based on the evaluation of the above activities. Students wishing to use their research and design project for their capstone project (e.g. MECH 490, COEN 490) must receive written approval from the Capstone Design Project coordinator in their respective department at the commencement of their CIADI project, and meet all requirements set out by both CIADI and their individual department.

INDUSTRIAL ENGINEERING

INDU 211 Introduction to Production and Manufacturing Systems (3 credits)

History of industrial engineering. Role of industrial engineers. Types of manufacturing and production systems. Material flow systems. Job design and work measurement. Introduction to solution methodologies for problems which relate to the design and operation of integrated production systems of humans, machines, information, and materials. Lectures: three hours per week. Tutorial: one hour per week.

INDU 311 Simulation of Industrial Systems (3.5 credits)

Prerequisite: ENGR 371. Modelling techniques in simulation; application of discrete simulation techniques to model industrial systems; random number generation and testing; design of simulation experiments using different simulation languages; output data analysis. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks. Tutorial: one hour per week.

INDU 320 Production Engineering (3 credits)

Prerequisite: INDU 323. The systems approach to production. Interrelationships among the component blocks of the system: forecasting, aggregate planning, production, material and capacity planning, operations scheduling. An overview of integrated production planning and control including MRP II, Just in Time manufacturing (JIT). Lectures: three hours per week. Tutorial: one hour per week.

INDU 321 Lean Manufacturing (3 credits)

Prerequisite: INDU 320. Lean fundamentals; lean manufacturing; lean engineering; lean principles, tools and techniques, practices, and implementation; five S's, process analysis/spaghetti charts, value engineering; value stream mapping; standardized work/standard times; set-up reduction/line balancing; unit manufacturing; cell layout/cellular manufacturing; total productive maintenance; kanban; lean supply chain management; transition-to-lean roadmap; people/organizational issues in the lean enterprise; Six Sigma; TOM; agile manufacturing. Lectures: three hours per week. Tutorial: one hour per week.

NOTE: Students who have received credit for INDU 420 may not take this course for credit.

INDU 323 *Operations Research I* (3.5 credits)

Prerequisite: ENGR 213, 233; INDU 211. An introduction to deterministic mathematical models with emphasis on linear programming. Applications to production, logistics, and service systems. Computer solution of optimization problems. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.

INDU 324 *Operations Research II* (3.5 credits)

Prerequisite: INDU 323. Integer programming (IP), including modelling and enumerative algorithms for solving IP problems; post-optimality analysis. Network flows, dynamic programming and non-linear programming. Applications in the design and operation of industrial systems. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.

NOTE: Students who have received credit for INDU 430 may not take this course for credit.

INDU 330 *Engineering Management* (3 credits)

Prerequisite: ENCS 282; ENGR 301 previously or concurrently. Organizational structures, their growth and change. Motivation, leadership, and group behaviour. Design of alternatives for improving organizational performance and effectiveness. Planning, organization and management of engineering projects. Management for total quality. Lectures: three hours per week.

INDU 342 *Logistics Network Models* (3 credits)

Prerequisite: INDU 324. Overview of transportation systems; airlines, railways, ocean liners, cargo, energy transportation and pipelines. Supply chain characterization. Site location. Distribution planning. Vehicle routing. Fleet scheduling. Crew scheduling. Demand management. Replenishment management. Revenue management. Geographic information systems. Real-time network control issues. Project. Lectures: three hours per week.

NOTE: Students who have received credit for INDU 442 may not take this course for credit.

INDU 371 *Stochastic Models in Industrial Engineering* (3 credits)

Prerequisite: ENGR 371. Overview of probability theory; probability distributions; exponential model and Poisson process; discrete-time and continuous-time Markov chains; classification of states; birth and death processes; queuing theory. Application to industrial engineering problems. Lectures: three hours per week. Tutorial: one hour per week.

INDU 372 *Quality Control and Reliability* (3 credits)

Prerequisite: ENGR 371. Importance of quality; total quality management; statistical concepts relevant to process control; control charts for variables and attributes; sampling plans. Introduction to reliability models and acceptance testing; issues of standardization. Lectures: three hours per week.

INDU 410 *Safety Engineering* (3 credits)

Prerequisite: MECH 311 or MIAE 311. This course focuses on the following topics: engineering design for the control of workplace hazards; occupational injuries and diseases; codes and standards; Workplace Hazardous Materials Information Systems (WHMIS); hazard evaluation and control; design criteria; risk assessment; safety in the manufacturing environment; applications in ventilation, air cleaning, noise and vibration. Lectures: three hours per week.

INDU 411 *Computer Integrated Manufacturing* (3.5 credits)

Prerequisite: MECH 311 or MIAE 311. This course focuses on concepts and benefits of computer integrated manufacturing (CIM); design for manufacturing; computer-aided design, process planning, manufacturing (computer numerical control parts programming), and inspection; robots in CIM; production planning and scheduling in CIM; system integration. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

INDU 412 *Human Factors Engineering* (3.5 credits)

Prerequisite: ENGR 371. Elements of anatomy, physiology, and psychology; engineering anthropometry; human capacities and limitations; manual material handling; design of workplaces; human-machines system design; design of controls and displays; shift work. Applications to a manufacturing environment. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

INDU 421 *Facilities Design and Material Handling Systems* (3.5 credits)

Prerequisite: INDU 311 previously or concurrently; INDU 320. An introduction to planning and design of production and manufacturing. Facility layout and location. Material handling systems and equipment specifications. Computer-aided facilities planning. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.

INDU 423 *Inventory Control* (3.5 credits)

Prerequisite: INDU 320. Inventory analysis and control systems; the role of forecasting in controlling inventories; the role of inventories in physical distribution; supply chain management; work in process inventories; inventory in just-in-time manufacturing systems. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.

INDU 431 *Quantitative Methods in Health-care Systems* (3 credits)

Topics include mathematical modelling and optimization methods in health-care problems, health-care staff planning and scheduling, operating room management, appointment scheduling in clinics, production and delivery of radio-pharmaceuticals, resource allocation and capacity planning in hospitals, ambulance redeployment and dispatching, routing and scheduling of caregivers in home-health industries, health-care facility location, inventory management of blood products, kidney exchange optimization and optimization in radiation therapy (IMRT and VMAT). A project is required. Lectures: three hours per week. Tutorial: one hour per week.

INDU 441 *Introduction to Six Sigma* (3 credits)

Prerequisite: INDU 372. Overview of the Six Sigma concepts and tools. Six Sigma deployment practices: Define, Measure, Analyze, Improve and Control phases (DMAIC). Project development, and the DMAIC problem-solving approach. Project. Lectures: three hours per week.

INDU 466 *Decision Models in Service Sector* (3 credits)

Prerequisite: ENGR 371; INDU 320. Introduction to service strategy and operations. Service demand forecasting and development of new services. Service facility location and layout planning. Applications of decision models in service operations and service quality control. Cost analysis, queuing models, risk management and resource allocation models for service decisions. Service outsourcing and supply chain issues. Efficiency and effectiveness issues in different service sectors such as emergency force deployment, municipal resource allocation and health care. Case studies using operations research, operations management, and statistical techniques. Lectures: three hours per week.

INDU 475 *Advanced Concepts in Quality Improvement* (3 credits)

Prerequisite: INDU 372. Statistical experimental design issues such as randomized blocks, factorial designs at two levels, applications on factorial designs, building models, Taguchi methods. Lectures: three hours per week.

INDU 480 *Cases in Industrial Engineering* (3 credits)

Prerequisite: INDU 311, 324. This course uses the case teaching method to train industrial engineering students to analyze real-world situations using the tools of operations research. Students assume the roles of engineering consultants working together to solve a problem posed by the client in each case. As a consequence, students obtain experience dealing with all steps involved in solving a real problem, from identification of stakeholders, problem formulation and identification of data requirements, to model implementation and analysis of results. Students are required to participate in class discussions of the case and to present their solutions in either report or presentation form. Lectures: three hours per week.

INDU 490 *Capstone Industrial Engineering Design Project* (4 credits)

Prerequisite: 75 credits in the program; ENGR 301; MIAE 380; INDU 421 previously or concurrently. A supervised design, simulation or experimental capstone design project including a preliminary project proposal with complete project plan and a technical report at the end of the fall term; a final report by the group and individual oral presentation at the end of the winter term. Lectures: one hour per week, one term. Equivalent laboratory time: three hours per week, two terms.

NOTE: Students will work in groups under direct supervision of a faculty member.

INDU 498 *Topics in Industrial Engineering* (3 credits)

Prerequisite: Permission of the Department Chair. This course may be offered in a given year upon the authorization of the Mechanical, Industrial and Aerospace Engineering Department. The course content may vary from offering to offering and will be chosen to complement the elective courses available in the Industrial Engineering program. Lectures: three hours per week.

MECHANICAL ENGINEERING

MECH 321 *Properties and Failure of Materials* (3.5 credits)

Prerequisite: MECH 221 or MIAE 221. This course covers the following topics: the service capabilities of alloys and their relationship to microstructure as produced by thermal and mechanical treatments; tensile and torsion tests; elements of dislocation theory; strengthening mechanisms; composite materials; modes of failure of materials; fracture, fatigue, wear, creep, corrosion, radiation damage; failure analysis; material codes; material selection for design. Lectures: three hours per week.

Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.

NOTE: Students who have received credit for AERO 481 may not take this course for credit.

MECH 343 *Theory of Machines* (3.5 credits)

Prerequisite: ENGR 213, 233, 243. Introduction to mechanisms; position and displacement; velocity; acceleration; synthesis of linkage; robotics; static force analysis; dynamic force analysis; forward kinematics and inverse kinematics; introduction to gear analysis and gear box design; kinematic analysis of spatial mechanisms. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.

MECH 344 *Machine Element Design* (3 credits)

Prerequisite: ENGR 244; MECH 313 or MIAE 313; MECH 343 previously or concurrently. This course covers the following topics: introduction to machine design; static failure theories; failure of ductile vs. brittle materials under static loading; fatigue failure theories; fatigue loads; notches and stress concentrations; residual stresses; designing for high cycle fatigue; design of shafts, keys and couplings; design of spur gears; spring design; design of screws and fasteners; design of bearings; case studies. Lectures: three hours per week. Tutorial: two hours per week.

NOTE: Students who have received credit for MECH 441 may not take this course for credit.

MECH 351 *Thermodynamics II* (3.5 credits)

Prerequisite: ENGR 251. Brief review of ideal gas processes. Semi-perfect gases and the gas tables. Mixtures of gases, gases and vapours, air conditioning processes. Combustion and combustion equilibrium. Applications of thermodynamics to power production and utilization systems: study of basic and advanced cycles for gas compression, internal combustion engines, power from steam, gas turbine cycles, and refrigeration. Real gases. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.

MECH 352 *Heat Transfer I* (3.5 credits)

Prerequisite: ENGR 311, 361. Analytical and numerical methods for steady-state and transient heat conduction. Empirical and practical relations for forced- and free-convection heat transfer. Radiation heat exchange between black bodies, and between non-black bodies. Gas radiation. Solar radiation. Effect of radiation on temperature measurement. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.

MECH 361 *Fluid Mechanics II* (3.5 credits)

Prerequisite: ENGR 361. Differential analysis of fluid flows, vorticity, stream function, stresses, and strains. Navier-Stokes equations and solutions for parallel flows. Euler's equations, irrotational and potential flows, plane potential flows. Viscous flows in pipes, laminar and turbulent flows, major and minor losses. Flow over immersed bodies, boundary layers, separation and thickness. Drag, lift and applications. Introduction to compressible flows, speed of sound, Mach cone, and some characteristics of supersonic flows. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.

MECH 368 *Electronics for Mechanical Engineers* (3.5 credits)

Prerequisite: PHYS 205; ENGR 311 previously or concurrently. Dependent sources, voltage and current dividers, voltage and current sources, superposition, Thevenin and Norton equivalent sources, linear and nonlinear circuit analysis. Semiconductors and diodes. Bipolar Junction Transistors (BJT), Field Effect Transistors (FET); amplifiers and switches. Operational amplifiers; circuits and frequency response. Digital logic components and circuits. Digital systems. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.

NOTE: Students who have received credit for MECH 470 may not take this course for credit.

NOTE: Electrical Engineering and Computer Engineering students may not take this course for credit.

MECH 370 *Modelling and Analysis of Dynamic Systems* (3.5 credits)

Prerequisite: PHYS 205; ENGR 213; ENGR 311 previously or concurrently; ENGR 245 or 243. Definition and classification of dynamic systems and components. Modelling of dynamic systems containing individual or mixed mechanical, electrical, fluid and thermal elements. Block diagrams representation and simulation techniques using MATLAB/Simulink. Time domain analysis. Transient and steady-state characteristics of dynamic systems. Linearization. Transfer functions. Introduction to feedback control systems. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.

NOTE: Students who have received credit for ELEC 370 may not take this course for credit.

MECH 371 *Analysis and Design of Control Systems* (3.75 credits)

Prerequisite: ENGR 311; MECH 370. Stability of linear feedback systems. Root-Locus method. Frequency response concepts. Stability in the frequency domain. Feedback system design using Root Locus techniques. Compensator concepts and configurations. PID-controller design. Simulation and computer-aided controller design using Matlab/Simulink. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: three hours per week, alternate weeks.

NOTE: Students who have received credit for ELEC 372 may not take this course for credit.

MECH 375 *Mechanical Vibrations* (3.5 credits)

Prerequisite: AERO 371 or MECH 370. Transient vibrations under impulsive shock and arbitrary excitation: normal modes, free and forced vibration. Multi-degree of freedom systems, influence coefficients, orthogonality principle, numerical methods. Continuous systems; longitudinal torsional and flexural free and forced vibrations of prismatic bars. Lagrange's equations. Vibration measurements. Lectures: three hours per week. Tutorial: two hours per week. Laboratory: two hours per week, alternate weeks.

NOTE: Students who have received credit for MECH 443 may not take this course for credit.

MECH 390 *Mechanical Engineering Design Project* (3.5 credits)

Prerequisite: ENCS 282; MECH 311 or MIAE 311; MECH 343; MIAE 380; MECH 344 previously or concurrently. This course covers the following topics: the design process; product cost, quality and time to market, open and concept design problems, problem description; geometric and type synthesis; direct and inverse design problems; material selection and load determination; mathematical modelling, analysis, and validation; introduction to Computer-Aided Design and Engineering (CAD and CAE); product evaluation for performance, tolerance, cost, manufacture, assembly, and other measures; design documentation. A team-based design project is an intrinsic part of this course. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: one hour per week.

MECH 411 *Instrumentation and Measurements* (3.5 credits)

Prerequisite: ENGR 311; AERO 371 or MECH 370. Unified treatment of measurement of physical quantities; static and dynamic characteristics of instruments — calibration, linearity, precision, accuracy, and bias and sensitivity drift; sources of errors; error analysis; experiment planning; data analysis techniques; principles of transducers; signal generation, acquisition and processing; principles and designs of systems for measurement of position, velocity, acceleration, pressure, force, stress, temperature, flow-rate, proximity detection. The course includes demonstration of various instruments. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week, alternate weeks.

NOTE: Students who have received credit for MECH 373 may not take this course for credit.

MECH 412 *Computer-Aided Mechanical Design* (3.5 credits)

Prerequisite: MECH 313 or MIAE 313. This course is an introduction to computational tools in the design process. The following topics are covered: introduction to the fundamental approaches to computer-aided geometric modelling, physical modelling

and engineering simulations; establishing functions and functional specifications with emphasis on geometric tolerancing and dimensioning, manufacturing and assembly evaluation. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

MECH 414 Computer Numerically Controlled Machining (3.5 credits)

Prerequisite: MECH 311 or MIAE 311; MECH 412. This course focuses on computer-aided design and manufacturing (CAD/CAM) hardware and software. The following topics are covered: essentials of Computer Numerical Control (CNC) machine tools and systems; process planning and tooling systems for CNC machining, theory of CNC programming of sculptured parts; multi-axis CNC tool path generation; project using CAD/CAM software; CATIA for complex mechanical parts design and a CNC machine tool to manufacture parts. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

MECH 415 Advanced Programming for Mechanical and Industrial Engineers (3 credits)

Prerequisite: MECH 215 or MIAE 215. This course focuses on class definitions. The following topics are covered: designing classes and member functions; constructors and destructors; class libraries and their uses; input and output; data abstraction and encapsulation; introduction to software engineering; computer graphics and visualization; numerical methods; advanced mechanical and industrial engineering applications. This course includes a substantial project. Lectures: three hours per week. Tutorial: one hour per week.

MECH 421 Mechanical Shaping of Metals and Plastics (3.5 credits)

Prerequisite: MECH 221 or MIAE 221. This course focuses on metal forming: extrusion, forging, rolling, drawing, pressing, compacting; shear line theory, sheet forming limits; metal cutting, machinability, tooling; plastics shaping: extrusion, moulding, vacuum forming; consideration of the mechanical parameters critical for process control and computer applications; interaction of materials characteristics with processing to define product properties (cold working, annealing, hot working, super plasticity, thermomechanical treatment); energy conservation, safety, product quality, and liability. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

MECH 422 Mechanical Behaviour of Polymer Composite Materials (3 credits)

Prerequisite: ENGR 233, 244; MECH 221 or MIAE 221. This course focuses on general applications of polymer composite materials in aircraft, aerospace, automobile, marine, recreational, and chemical processing industries. The following topics are covered: mechanics of a unidirectional lamina; transformation of stress, strain, modulus, and compliance; off-axis engineering constants, shear and normal coupling coefficients; in-plane and flexural stiffness and compliance with different laminates, including cross-ply, angle-ply, quasiisotropic, and general bidirectional laminates; hygrothermal effects; strength of laminates and failure criteria; micromechanics. Lectures: three hours per week.

MECH 423 Casting, Welding, Heat Treating, and Non-Destructive Testing (3.5 credits)

Prerequisite: MECH 221 or MIAE 221. This course focuses on comparative analysis of the various techniques of casting, welding, powder fabrication, finishing, and non-destructive testing. The following topics are covered: consideration of the control parameters that are essential to define both automation and robot application; materials behaviour which determines product micro-structure and properties; technology and theory of solidification, normalizing, quenching, surface hardening, tempering, aging, and thermomechanical processing for steels, cast irons and Al, Cu, Ni and Ti alloys; energy conservation, worker safety, quality control, and product liability. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

MECH 424 MEMS — Design and Fabrication (3.5 credits)

Prerequisite: MECH 311 or MIAE 311; MECH 343. This course is an introduction to microsystems and devices; mechanical properties of materials used in microsystems; microfabrication and post-processing techniques; sacrificial and structural layers; lithography, deposition and etching; introduction and design of different types of sensors and actuators; micromotors and other microdevices; mechanical design, finite element modelling; design and fabrication of free-standing structures; microbearings; special techniques: double-sided lithography, electrochemical milling, laser machining, LIGA, influence of IC fabrication methods on mechanical properties; application examples in biomedical, industrial, and space technology areas; integration, bonding and packaging of MEMS devices. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

MECH 425 Manufacturing of Composites (3.5 credits)

Prerequisite: MECH 311 or MIAE 311. This course focuses on fibres and resins. The following topics are covered: hand lay up; autoclave curing; compression molding; filament winding; resin transfer molding; braiding. Injection molding; cutting; joining; thermoset and thermoplastic composites; Polymer Nanocomposites; process modelling and computer simulation; non-destructive evaluation techniques. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

MECH 426 Stress and Failure Analysis of Machinery (3 credits)

Prerequisite: ENGR 233, 244; AERO 481 or MECH 321. Analysis of stresses, strains and deformations in machine elements; non-symmetric bending of beams; shear centre for thin-walled beams; curved beams; torsion of non-circular shafts and tubes; thick wall cylinders; plates and shells; contact elements; stress concentrations; energy methods; failure modes, analysis and prevention; buckling, fracture, fatigue and creep. Lectures: three hours per week.

MECH 444 Guided Vehicle Systems (3 credits)

Prerequisite: MECH 375. Definition and classification of guided transportation systems. Track characterization: alignment, gage, profile, and cross-level irregularities. Wheel-rail interactions: rolling contact theories, creep forces. Modelling of guided vehicle components: wheel set, suspension, truck and car body configurations, suspension characteristics. Performance evaluation: stability hunting, ride quality. Introduction to advanced vehicles. Lectures: three hours per week.

MECH 447 Fundamentals of Vehicle System Design (3 credits)

Prerequisite: MECH 343. This course focuses on the fundamentals of vehicle system design. The following topics are covered: mechanics of tires such as rolling resistance, tractive and braking forces, cornering and self-aligning properties, and ride properties; performance characteristics of road vehicles such as transmission design, driving condition diagrams, acceleration, speed and stopping distance, gradability, brake system design, braking performance, braking efficiency, antilock braking system; steering mechanisms such as design and kinematics; handling characteristics of vehicles such as steady-state handling analysis, steady-state and transient responses to steering inputs, transient measurement methods, directional stability; vehicle ride; suspension system design and modelling; ride models; case studies using CarSim. Lectures: three hours per week.

MECH 452 Heat Transfer II (3.5 credits)

Prerequisite: MECH 351, 352, 361. Heat exchangers. Condensation and boiling heat transfer. Principles of forced convection. Analysis of free convection from a vertical wall. Correlations for free convection in enclosed spaces. Mass transfer. Special topics of heat transfer. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

MECH 453 Heating, Ventilation and Air Conditioning Systems (3 credits)

Prerequisite: MECH 352. Heating and cooling load calculation. Overview of heating and air conditioning systems. Review: Vapour compression refrigeration cycles, refrigerant properties, psychometrics. Performance characteristic of components: evaporators, condensers, compressors, throttling devices (expansion valves, capillary tubes). System performance characteristics: calculation of system operating conditions based on the capacities of its components and outdoor and indoor conditions. Controls: operational, capacity. Computer-aided design methods. Defrosting. Estimation of energy consumption for heating with heat pumps. Fundamentals of refrigerant piping, water piping, and air distribution systems. Experimental methods for system development. Lectures: three hours per week.

MECH 454 Vehicular Internal Combustion Engines (3 credits)

Prerequisite: MECH 351, 361. Mechanical design of vehicular engines for different applications. Gas exchange and combustion engine processes. Combustion chambers design. Fuels for vehicular engines. Fuel supply, ignition and control systems. Cooling and lubrication of engines. Emissions formation and control. Engines' operational characteristics — matching with vehicles. Enhancement of engine performance. Engine testing. Environmental impact of vehicular engines on global pollution. Recent developments in energy efficient and "clean" engines. Design or calculation project of vehicular engine. Lectures: three hours per week.

MECH 460 Finite Element Analysis (3.75 credits)

Prerequisite: ENGR 244, 391. Formulation and application of the finite element method to modelling of engineering problems, including stress analysis, vibrations, and heat transfer. Examples illustrating the direct approach, as well as variational and weighted residual methods. Elements and interpolation functions. Meshing effect. Error analysis. One- and two-dimensional boundary value problems. Development of simple programs and direct experience with general purpose packages currently used in industry for design problems. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

MECH 461 Gas Dynamics (3.5 credits)

Prerequisite: MECH 361. Review of one-dimensional compressible flow. Normal and oblique shock waves; Prandtl-Meyer flow; combined effects in one-dimensional flow; non-ideal gas effects; multi-dimensional flow; linearized flow; method of characteristics. Selected experiments in supersonic flow, convergent-divergent nozzles, hydraulic analog and Fanno tube. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

MECH 463 Fluid Power Control (3.5 credits)

Prerequisite: ENGR 361; MECH 371. This course is an introduction to fluid power; pneumatic devices; fluidic devices; hydraulic system components; hydraulic and electro-hydraulic systems; dynamic performance of fluid power systems; fluid logic. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

MECH 468 Wind Turbine Engineering (3 credits)

Prerequisite: MECH 343, 361; MECH 344, 371 previously or concurrently. This course is designed to cover the theoretical and practical areas pertinent to the operation of wind turbines. The following topics are covered: energy in the wind; aerodynamic drag and lift of turbine blades; horizontal axis and vertical axis wind turbine designs; generators; control systems; mechanical load analysis such as blade, tower, generator and gearbox; blade and tower design; turbine braking; economical, environmental and safety aspects.

NOTE: Students who have received credit for MECH 462 may not take this course for credit.

MECH 471 Microcontrollers for Mechatronics (3.5 credits)

Prerequisite: ENGR 311; MECH 368. Introduction to the concepts and practices of microcontrollers and their application for the control of electromechanical devices and systems. Study of the internal architecture of microcontrollers; programming in assembly language for specific microcontroller functions and controller algorithms; timing of the microcontroller and interfacing with peripheral devices. Students undertake hands-on project work by controlling the position or speed of a DC motor with a feed-back sensor. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

MECH 472 Mechatronics and Automation (3.5 credits)

Prerequisite: MECH 215 or MIAE 215; MECH 371 previously or concurrently. This course focuses on design and analysis of mechatronic and automation systems. The following topics are covered: selection and integration of actuators, sensors, hardware,

and software; computer vision; programming and software design for mechatronic systems; modelling and simulation; design of logic control systems; finite state machine methods; feedback control and trajectory generation; safety logic systems; case studies including automation systems, mobile robots, and unmanned vehicle systems. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

MECH 473 *Control System Design* (3.5 credits)

Prerequisite: ELEC 372 or MECH 371. Analog and digital controller designs. Analog controllers: lead/lag compensators, pole placement, model matching, two-parameter configuration, plant input/output feedback configuration. Digital controllers: difference equations, Z-transform, stability in the Z-domain, digital implementation of analog controllers, equivalent digital plant method, alias signals, selection of sampling time. Introduction to analog/digital state-space: controllability, observability, state feedback, state estimator. PI and PID controllers. Simulink assignments and project. Hardware laboratory project: analog and digital controller design for motor with inertial plus generator load. Lectures: three hours per week. Laboratory: two hours per week, alternate weeks.

MECH 474 *Mechatronics* (3.75 credits)

Prerequisite: ELEC 372 or MECH 371. Introduction to mechatronics; basic elements of mechatronic systems. Measurement systems: including principles of measurement systems; sensors and transducers; signal conditioning processes and circuits; filters and data acquisition. Actuation systems: mechanical actuation systems and electrical actuation systems. Controllers: control modes; PID controller; performance measures; introduction to digital controllers and robust control. Modelling and analysis of mechatronic systems; performance measures; frequency response; transient response analysis; stability analysis. Lectures: three hours per week. Laboratory: three hours per week, alternate weeks.

MECH 476 *Generative Design and Manufacturing in Engineering* (3 credits)

Prerequisite: MECH 313 or MIAE 313; AERO 390 or MECH 390 previously or concurrently. Generative design is a form-finding process that can mimic nature's evolutionary approach to design. It can start with design goals and then explore innumerable possible permutations of a solution to find the best option. This course provides fundamental information on generative design and manufacturing in engineering. The core techniques from mathematics to artificial intelligence that are commonly used in the creative industry are discussed. The formal paradigms and algorithms used for generation as well as cloud computing are also covered. Lectures: three hours per week.

MECH 490 *Capstone Mechanical Engineering Design Project* (4 credits)

Prerequisite: 75 credits in the program; ENGR 301; MECH 344, 390. This course includes a supervised design, simulation or experimental capstone design project including a preliminary project proposal with complete project plan and a technical report at the end of the fall term; a final report by the group and presentation at the end of the winter term. Lectures: one hour per week, one term. Equivalent laboratory time: three hours per week, two terms.

NOTE: Students will work in groups under direct supervision of a faculty member.

NOTE: With permission of the Department, students may enrol in AERO 490 instead of MECH 490.

MECH 498 *Topics in Mechanical Engineering* (3 credits)

Prerequisite: Permission of the Department Chair. This course may be offered in a given year upon the authorization of the Mechanical, Industrial and Aerospace Engineering Department. The course content may vary from offering to offering and will be chosen to complement the elective courses available in a given option or options. Lectures: three hours per week.

MECHANICAL, INDUSTRIAL AND AEROSPACE ENGINEERING

MIAE 211 *Mechanical Engineering Drawing* (3.5 credits)

This course is an introduction to graphic language and design — means and techniques. The following topics are covered: the third and the first angle projections; orthographic projection of points, lines, planes and solids; principal and auxiliary views; views in a given direction; sectional views; intersection of lines, planes and solids; development of surfaces; drafting practices; dimensioning, fits and tolerancing; computer-aided drawing and solid modelling; working drawings — detail and assembly drawing; design practice; machine elements representation. Lectures: three hours per week. Tutorial: two hours per week — includes learning of a CAD software. Laboratory: two hours per week, alternate weeks.

NOTE: Students who have received credit for MECH 211 may not take this course for credit.

MIAE 215 *Programming for Mechanical and Industrial Engineers* (3.5 credits)

Prerequisite: MATH 204 (Cegep mathematics 105). This course focuses on writing programs using assignment and sequences; variables and types; operators and expressions; conditional and repetitive statements; input and output; file access; functions; program structure and organization; pointers and dynamic memory allocation; introduction to classes and objects; mechanical and industrial engineering applications. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: one hour per week.

NOTE: Students who have received credit for COEN 243 or MECH 215 may not take this course for credit.

MIAE 221 *Materials Science* (3 credits)

Prerequisite: CHEM 205 (Cegep Chemistry 101). This course focuses on relationships between properties and internal structure, atomic bonding; molecular, crystalline and amorphous structures, crystalline imperfections and mechanisms of structural change; microstructures and their development from phase diagrams; structures and mechanical properties of polymers and ceramics; thermal, optical, and magnetic properties of materials. Lectures: three hours per week. Tutorial: one hour per week.

NOTE: Students who have received credit for MECH 221 may not take this course for credit.

MIAE 311 *Manufacturing Processes* (3.00 credits)

Prerequisite: MECH 313 or MIAE 313. This course focuses on the fundamentals of manufacturing processes and their limitations, metrology, machine shop practice, safety and health considerations, forming, conventional machining and casting processes, welding and joining, plastic production, and non-conventional machining techniques; sustainable technologies. Laboratory includes instruction and practice on conventional machine tools and a manufacturing project. Lectures: three hours per week. Tutorial: two hours per week, including industrial visits and field trips to local industries.

NOTE: Students who have received credit for MECH 311 may not take this course for credit.

MIAE 312 *Engineering Design and Manufacturing Processes Lab* (1 credit)

Prerequisite: MIAE 311 previously or concurrently. This laboratory includes instruction and practice on conventional and advanced machine tools and a manufacturing project. Laboratory: equivalent to four hours per week, alternate weeks.

MIAE 313 *Machine Drawing and Design* (3.5 credits)

Prerequisite: MECH 211 or MIAE 211. This course is an introduction to engineering design and design process. The following topics are covered: problem definition, solution formulation, model development and collaboration aspects of design process; the use of drawings and other graphical methods in the process of engineering design; industrial standards and specifications, design of fits, linear and geometrical tolerances. Design projects based on design philosophies will involve design and selection of many standard machine components like mechanical drives, cams, clutches, couplings, brakes, seals, fasteners, springs, and bearings. Drawing representation of standard components is also covered. Design projects are an integral part of this course. Lectures: three hours per week. Tutorial: two hours per week. Laboratory: 12 hours total.

NOTE: Students who have received credit for MECH 313 may not take this course for credit.

MIAE 380 *Product Design and Development* (3 credits)

Prerequisite: MECH 211 or MIAE 211. This course focuses on development processes and organizations, product planning, identifying customer needs, product specifications, concept generation, concept selection, concept testing, product architecture, industrial design, design for manufacturing, prototyping robust design, patents and intellectual property. Lectures: three hours per week.

NOTE: Students who have received credit for AERO 444 or INDU 440 may not take this course for credit.

DEPARTMENT OF COMPUTER SCIENCE AND SOFTWARE ENGINEERING

Section 71.70

Faculty

Chair

LATA NARAYANAN, PhD *University of Rochester*, ing.; Professor

Associate Chair (Computer Science)

THOMAS FEVENS, PhD *Queen's University*; Associate Professor

Associate Chair (Software Engineering)

WEIYI (IAN) SHANG, PhD *Queen's University*; Associate Professor

Professors

SABINE BERGLER, PhD *Brandeis University*

GREGORY BUTLER, PhD *University of Sydney*

BIPIN C. DESAI, PhD *McGill University*

EUSEBIUS J. DOEDEL, PhD *University of British Columbia*

GOSTA GRAHNE, PhD *University of Helsinki*

YANN-GAEL GUÉHÉNEUC, PhD *University of Nantes*, ing.

VOLKER M. HAARSLEV, PhD *University of Hamburg*

HOVHANNES A. HARUTYUNYAN, PhD *Armenian Academy of Sciences*

BRIGITTE JAUMARD, PhD *École Nationale Supérieure des Télécommunications*

LEILA KOSSEIM, PhD *Université de Montréal*

ADAM KRZYZAK, PhD *University of Wroclaw*; Provost's Distinction

SUDHIR P. MUDUR, PhD *Bombay University*, PEng

JUERGEN RILLING, PhD *University of Illinois*

CHING Y. SUEN, PhD *University of British Columbia*; Provost's Distinction

Distinguished Professors Emeriti

J. WILLIAM ATWOOD, PhD *University of Illinois*

VACLAV CHVATAL, PhD *University of Waterloo*; Provost's Distinction

CLEMENT LAM, PhD *California Institute of Technology*

JOHN MCKAY, PhD *University of Edinburgh*; Provost's Distinction

JAROSLAV OPATRNY, PhD *University of Waterloo*

Professors Emeriti

V.S. ALAGAR, PhD *McGill University*

TIEN D. BUI, PhD *York University*, ing.

DAVID FORD, PhD *Ohio State University*

PETER GROGOÑO, PhD *Concordia University*, PEng

H.F. LI, PhD *University of California, Berkeley*

R. SHINGHAL, PhD *McGill University*

Associate Professors

CONSTANTINOS CONSTANTINIDES, PhD *Illinois Institute of Technology*, PEng

TODD EAVIS, PhD *Dalhousie University*

TRISTAN GLATARD, PhD *Université Nice Sophia Antipolis, France*

DHRUBAJYOTI GOSWAMI, PhD *University of Waterloo*, PEng

RAJAGOPALAN JAYAKUMAR, PhD *Concordia University*

OLGA ORMANDJIEVA, PhD *Concordia University*, ing.

JOEY PAQUET, PhD *Université Laval*

TIBERIU POPA, PhD *University of British Columbia*

CHARALAMBOS POULLIS, PhD *University of Southern California*

DAVID K. PROBST, DSc *Université de Bruxelles*

PETER RIGBY, PhD *University of Victoria*

EMAD SHIHAB, PhD *Queen's University*, PEng

NEMATOLLAH SHIRI-VARNAAMKHAASTI, PhD *Concordia University*

NIKOLAOS TSANTALIS, PhD *University of Macedonia*, PEng

RENÉ WITTE, DrIng *University of Karlsruhe*, PEng

YUHONG YAN, PhD *Tsinghua University/Leipzig University*, PEng

Assistant Professors

EUGENE BELLILOVSKY, PhD *Université Paris-Saclay*
TSE-HSUN (PETER) CHEN, PhD *Queen's University*
ANDREW DELONG, PhD *Western University*
MARTA KERSTEN-OERTEL, PhD *McGill University*
ESSAM MANSOUR, PhD *Dublin Institute of Technology*
DENIS PANKRATOV, PhD *University of Chicago*
YIMING XIAO, PhD *McGill University*
JINQIU (ALICE) YANG, PhD *University of Waterloo*

Senior Lecturer

AIMAN HANNA, PhD *Concordia University, PEng*

Lecturers

NORA HOUARI, PhD *University of Calgary*
KAUSTUBHA MENDHURWAR, PhD *Concordia University*
RODRIGO MORALES, PhD *Polytechnique Montréal*

Affiliate Professors

L. LAM, PhD *University of Toronto*
ANDRZEJ PELC, PhD *University of Warsaw*

Affiliate Associate Professors

GUANGI CHEN, PhD *Concordia University*
T. KENGATHARAM, PhD *Concordia University*
YASER KHAMAYSEH, PhD *University of Alberta*

Affiliate Assistant Professors

GILBERT HONNOUVO, PhD *McGill University*
FEHMI JAAFAR, PhD *Université de Montréal*
MUNA KHAYYAT, PhD *Concordia University*
MARIE-JEAN MEURS, PhD *University of Avignon*
SERGUEI MOKHOV, PhD *Concordia University*
MAMA NSANGOU MOUCHILI, PhD *Patrice Lumumba Peoples Friendship University*
K. PITULA, PhD *Concordia University*
MIAO SONG, PhD *Concordia University*
EMIL VASSEV, PhD *Concordia University*

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus

Engineering, Computer Science and Visual Arts Complex, Room: EV 003.139
514-848-2424, ext. 3000

Objectives

The Department of Computer Science and Software Engineering offers three distinct undergraduate programs: BCompSc; BCompSc in Health and Life Sciences; and BEng in Software Engineering.

Computer Science is the study and design of computer systems: hardware and software. Computer scientists are primarily concerned with the design of algorithms, languages, hardware architecture, systems software, applications software and tools. Applications range from simple game playing to the control of space vehicles, power plants and factories, from banking machines to intelligent fault and medical diagnosis. Computer professionals, in short, are concerned with the creation of computer and information systems for the benefit of society.

The Bachelor of/Baccalaureate in Computer Science in Health and Life Sciences is offered in collaboration with the Department of Biology and shares a number of courses with the BSc Honours and Specialization programs in Systems and Information Biology. The detailed description of these programs can be found in §71.75.

Software Engineering applies the principles and practices of engineering to the creation of reliable, efficient, and economical software. Software Engineering has its roots in the theory and mathematics of computer science, but carries this knowledge further towards creative applications such as software control systems for vehicles, aircraft, industrial processes; animation, interactive video, virtual reality, commercial systems for banking and financial analysis; health systems for the analysis of biological systems and the control of therapeutic devices.

It shares with engineering the rigorous methodology of analysis and design in the search for economical, reliable, and efficient solutions. Software engineers are trained in all aspects of the software life cycle, from specification through analysis and design, to testing, maintenance and evaluation of the product. They are concerned with safety and reliability of the product as well as cost and schedule of the development process. The discipline is particularly applicable to very large software projects, as well as the re-engineering of existing products.

71.70.1 Curriculum for the Degree of Bachelor of/Baccalaureate in Computer Science

The Computer Science program emphasizes fundamentals and techniques that remain relevant and useful for many years after graduation. The program consists of a combination of core courses in computer science, elective courses in computer science and mathematics, and some free electives. The Computer Science Core provides a basic and broad study of theory, mathematical basics, programming methodology, computer architecture, data structures, operating systems, and software engineering. Elective courses are presented in groups to guide students in the selection of advanced elective courses in computer science to provide further depth in computer science and the particular application area.

The **Joint Major in Computation Arts and Computer Science** combines a comprehensive education in both computer science and the design of interactive multimedia (see §71.80).

The **Joint Major in Mathematics and Statistics and Computer Science** combines a comprehensive education in both computer science and mathematics and statistics (see §71.85).

There is an honours program corresponding to BCompSc (and associated joint majors) (see §71.70.4). In addition, all programs are offered in the co-operative format, with alternating study and work terms, for a limited number of students with suitable qualifications (see §24).

71.70.2 Degree Requirements (BCompSc)

To be recommended for the degree of BCompSc, students must satisfactorily complete an approved program of at least 90 credits comprising the courses of the Computer Science Core, the Complementary Core, Computer Science Electives, Mathematics Electives, and the remaining courses comprised of a Minor and/or General Electives in accordance with the graduation requirements of §71.10.5. The program also offers the BCompSc degree in the form of two joint major degrees (see §71.70.1).

Students may not register for a 400-level course before completing all of the 200-level Computer Science Core courses of their program.

The Gina Cody School of Engineering and Computer Science is committed to ensuring that its students possess good writing skills. Hence, every student in an undergraduate degree program is required to demonstrate competence in writing English or French prior to graduation.

All students admitted to the Gina Cody School of Engineering and Computer Science must meet the writing skills requirement as outlined in §71.20.7 (Writing Skills Requirement).

If a student has satisfied the writing skills requirement prior to transferring to the Gina Cody School of Engineering and Computer Science, that student is deemed to have satisfied the writing skills requirement.

Newly admitted students are strongly encouraged to meet the requirement very early in their program (fall term of first year for students starting in September or winter term of first year for students starting in January) to avoid the risk of delayed graduation should remedial work prove necessary. Students who are required to take ESL courses should meet the Faculty writing skills requirements in the term following completion of their ESL courses.

BCompSc	Credits
Computer Science Core	33.00
Complementary Core	6.00
Computer Science Electives	18.00
Mathematics Electives	6.00
Minor* or General Electives	27.00
	90.00

Students who wish to complete a minor offered by any other department in the University outside the Department of Computer Science and Software Engineering are strongly encouraged to declare their minor by the end of their first year. Students must satisfy the requirements for the minor program as determined by the department that offers it.

*Any credits beyond those required to complete a declared minor may be taken as General Electives.

Computer Science Core (33 credits)	Credits
COMP 228 System Hardware	3.00
COMP 232 Mathematics for Computer Science	3.00
COMP 233 Probability and Statistics for Computer Science	3.00
COMP 248 Object-Oriented Programming I	3.50
COMP 249 Object-Oriented Programming II	3.50
COMP 335 Introduction to Theoretical Computer Science	3.00
COMP 346 Operating Systems	4.00

COMP 348	Principles of Programming Languages	3.00
COMP 352	Data Structures and Algorithms	3.00
COMP 354	Introduction to Software Engineering	4.00
		33.00
Complementary Core (6 credits)		<i>Credits</i>
ENCS 282	Technical Writing and Communication	3.00
ENCS 393	Social and Ethical Dimensions of Information and Communication Technologies	3.00
		6.00

Computer Science Electives

Computer Science Electives must be chosen from the following list:

- All COMP courses with numbers 325 or higher.
- ENGR 490
- SOEN 287, 321, 331, 387, 422, 423, 487.
- COMP and SOEN courses with numbers between 6000 and 6951 (maximum of eight credits, and with permission from the Department).

Any credits exceeding the required number of Computer Science Elective credits will accrue towards the General Elective credits. Elective courses are listed below in groups to facilitate the selection of courses in a particular area of the field.

Artificial Intelligence Group *Credits*

COMP 425	Computer Vision	4.00
COMP 432	Machine Learning	4.00
COMP 472	Artificial Intelligence	4.00
COMP 473	Pattern Recognition	4.00
COMP 474	Intelligent Systems	4.00
COMP 479	Information Retrieval and Web Search	4.00

Computer Games Group *Credits*

COMP 345	Advanced Program Design with C++	4.00
COMP 371	Computer Graphics	4.00
COMP 376	Introduction to Game Development	4.00
COMP 475	Immersive Technologies	4.00
COMP 476	Advanced Game Development	4.00
COMP 477	Animation for Computer Games	4.00

Data Analytics Group *Credits*

COMP 333	Data Analytics	3.00
COMP 353	Databases	4.00
COMP 432	Machine Learning	4.00
COMP 479	Information Retrieval and Web Search	4.00
MAST 324	Introduction to Optimization	3.00
SOEN 471	Big Data Analytics	4.00

Web Services and Applications Group *Credits*

COMP 353	Databases	4.00
COMP 445	Data Communication and Computer Networks	4.00
COMP 479	Information Retrieval and Web Search	4.00
SOEN 287	Web Programming	3.00
SOEN 387	Web-Based Enterprise Application Design	3.00
SOEN 487	Web Services and Applications	4.00

Mathematics Electives

Mathematics Electives must be chosen from the following list:

COMP 339*	Combinatorics	3.00
COMP 361*	Elementary Numerical Methods	3.00
COMP 367*	Techniques in Symbolic Computation	3.00

ENGR 213	Applied Ordinary Differential Equations	3.00
ENGR 233	Applied Advanced Calculus	3.00
MAST 218	Multivariable Calculus I	3.00
MAST 219	Multivariable Calculus II	3.00
MAST 234	Linear Algebra and Applications I	3.00
MAST 235	Linear Algebra and Applications II	3.00
MAST 324	Introduction to Optimization	3.00
MAST 332*	Techniques in Symbolic Computation	3.00
MAST 334*	Numerical Analysis	3.00
MATH 251	Linear Algebra I	3.00
MATH 252	Linear Algebra II	3.00
MATH 339*	Combinatorics	3.00
MATH 392	Elementary Number Theory	3.00

Any credits exceeding the required number of Mathematics Elective credits will accrue towards the General Elective credits.
 *Students cannot receive credit for both COMP 339 and MATH 339; COMP 361 and MAST 334; COMP 367 and MAST 332.

General Electives

General Electives must be chosen from the following list:

- Computer Science Electives as mentioned above.
- Mathematics Electives as mentioned above.
- General Education Electives found in §71.110.
- Basic and Natural Science Courses list found in §71.70.9.

A course outside this list may qualify as a General Elective only with prior written permission on an GCS Student Request form, obtainable from the Office of Student Academic Services in the Gina Cody School of Engineering and Computer Science.

Joint Major in Computation Arts and Computer Science

See §71.80 for details.

Joint Major in Mathematics and Statistics and Computer Science

See §71.85 for details.

71.70.3 Extended Credit Program

Students admitted to an Extended Credit Program (ECP) under the provisions of Sections 13.3.2 or 13.8.1 must successfully complete a minimum of 120 credits including:

- 90 Program requirements as set out in Section 71.70.2
 9 MATH 203³, 204³, 205³
 6 Chosen from courses in Humanities or Social Sciences as noted in Section 71.110. ESL courses and courses that focus on the acquisition of a language may not be used to meet this requirement.
 15 ECP elective credits chosen from the following lists, depending on the student's program:
 a) *BCompSc (other than Joint Majors)*:
 15 elective credits chosen from outside the Gina Cody School of Engineering and Computer Science (see Note).
 b) *Joint Major in Computation Arts and Computer Science*:
 15 elective credits chosen from outside the Gina Cody School of Engineering and Computer Science and the Department of Design and Computation Arts (see Note).
 c) *Joint Major in Mathematics and Statistics and Computer Science*:
 15 elective credits chosen from outside the Gina Cody School of Engineering and Computer Science and the Department of Mathematics and Statistics (see Note).

Note: ECP elective credits may be chosen as follows:

- General Education Electives found in §71.110.
- Basic and Natural Science Courses found in §71.70.9.
- Courses not included in the above lists may be taken with prior approval of the undergraduate program director.

71.70.4 Honours Program

Students should refer to §16.2.4 of the Calendar for academic regulations for the honours program. The following regulations are additional requirements for the Honours BCompSc program.

1. Applications to enter an honours program must be submitted to the Office of the Associate Dean (Student Academic Services) at least three months before the start of the term in which the student wishes to enter an honours program.
2. Students must complete at least 30 credits towards their degree before entering an honours program.
3. Students who are required to withdraw from an honours program may continue in the BCompSc degree provided they are in acceptable or conditional standing according to the academic regulations in §71.10.3.

Course Requirements for Honours Programs

Honours students must fulfill the requirements of the BCompSc degree. In addition, to receive an honours degree:

1. Students must have a final graduation GPA of at least 3.30.
2. Students must successfully complete the course COMP 490 as one of the Computer Science electives for the BCompSc.
3. Students must successfully complete at least six of the General Electives credits chosen from the list of Computer Science Electives with at least two of the following: COMP 339, COMP 465, and COMP or SOEN courses with a number between 6000 and 6951 not marked with (*).

71.70.5 Minor in Computer Science

NOTE: Admission profile is 10.12.

Minor in Computer Science	Credits
COMP 228 System Hardware	3.00
COMP 232 Mathematics for Computer Science	3.00
COMP 248 Object-Oriented Programming I	3.50
COMP 249 Object-Oriented Programming II	3.50
COMP 352 Data Structures and Algorithms	3.00
Computer Science Electives (see §71.70.2)	9.00
	<hr/>
	25.00

Students who require any of the above courses as part of their major should replace these courses with elective courses chosen from the list of Computer Science Electives.

71.70.6 Programs Related to Computer Science

The Faculty of Fine Arts and the Department of Computer Science and Software Engineering offer the Joint Major in Computation Arts and Computer Science (see §71.80, and Fine Arts – Design and Computation Arts, §81.90). The Faculty of Arts and Science and the Department of Computer Science and Software Engineering offer the Joint Major in Mathematics and Statistics and Computer Science (see §71.85, and Arts and Science – Mathematics and Statistics, §31.200).

71.70.7 C.Edge (Career Edge) Option and Reflective Learning Courses

The C.Edge Option is administered through the Institute for Co-operative Education. See §24.

Students employed full-time in a computer science position during their non-study terms may have this C.Edge option listed on their official transcript and student record, provided they successfully complete the Reflective Learning course associated with this work term.

C.Edge work terms will be coded as COMP 107 and 207, and the associated Reflective Learning courses will be coded as COMP 108 and 208 respectively.

Students may only register for these courses with the permission of the Faculty.

The C.Edge terms COMP 107 and 207 carry no credit value and are used to indicate that the student is on a C.Edge term.

The COMP 108 and 208 C.Edge Reflective Learning courses are worth three credits and are marked on a pass/fail basis. They are above and beyond the credit requirements of the student's program and are not transferable nor are they included in the full- or part-time assessment status.

Students studying for a co-op work term or CIADI term should not register for these C.Edge and Reflective Learning courses.

71.70.8 Curriculum for the Degree of BEng in Software Engineering

The Software Engineering program is built on the fundamentals of computer science, an engineering core, and a discipline core in Software Engineering to cover the engineering approach to all phases of the software process and related topics.

The curriculum builds on the traditional computer science core topics of computer mathematics, theory, programming methodology, and mainstream applications to provide the computing theory and practice which underlie the discipline. The engineering core covers basic science, professional topics, and introduces the engineering approach to problem solving. The program core in Software Engineering includes advanced programming techniques, software specification, design, architecture, as well as metrics, security, project management, and quality control. The electives cover a broad range of advanced topics, from formal methods to distributed systems.

Extended Credit Program

The requirements of the Extended Credit Program (ECP) are set out in Section 71.20.2.

71.70.9 Degree Requirements for the BEng in Software Engineering

Students registered in the Software Engineering program must complete a minimum of 120 credits during four years of full-time study. The program consists of the Engineering Core, Software Engineering Core, and electives.

Engineering Core (30.5 credits)

See §71.20.5

Software Engineering Core		Credits
SOEN 228	System Hardware	4.00
SOEN 287	Web Programming	3.00
SOEN 321	Information Systems Security	3.00
SOEN 331	Formal Methods for Software Engineering	3.00
SOEN 341	Software Process and Practices	3.00
SOEN 342	Software Requirements and Deployment	3.00
SOEN 343	Software Architecture and Design	3.00
SOEN 345	Software Testing, Verification and Quality Assurance	3.00
SOEN 357	User Interface Design	3.00
SOEN 363	Data Systems for Software Engineers	3.00
SOEN 384	Management, Measurement and Quality Control	3.00
SOEN 385	Control Systems and Applications	3.00
SOEN 390	Software Engineering Team Design Project	3.50
SOEN 490	Capstone Software Engineering Design Project	4.00
	Computer Science Group	23.00
	Two Basic and Natural Science courses	6.00
		73.50

Computer Science Group		Credits
COMP 232	Mathematics for Computer Science	3.00
COMP 248	Object-Oriented Programming I	3.50
COMP 249	Object-Oriented Programming II	3.50
COMP 335	Introduction to Theoretical Computer Science	3.00
COMP 346	Operating Systems	4.00
COMP 348	Principles of Programming Languages	3.00
COMP 352	Data Structures and Algorithms	3.00
		23.00

Basic and Natural Science Courses

Two Basic and Natural Science courses must be selected from the following, including at least one course marked *:

		Credits
BIOL 206*	Elementary Genetics	3.00
BIOL 261*	Molecular and General Genetics	3.00
CHEM 217*	Introductory Analytical Chemistry I	3.00
CHEM 221*	Introductory Organic Chemistry I	3.00
CIVI 231	Geology for Civil Engineers	3.00
ELEC 321	Introduction to Semiconductor Materials and Devices	3.50
ENGR 242	Statics	3.00
ENGR 243	Dynamics	3.00
ENGR 251	Thermodynamics I	3.00
ENGR 361	Fluid Mechanics I	3.00
MIAE 221*	Materials Science	3.00
PHYS 252*	Optics	3.00
PHYS 284*	Introduction to Astronomy	3.00
PHYS 385*	Astrophysics	3.00

Electives

Students in the Software Engineering program must complete at least 16 elective credits from the list of courses below. Electives are also listed in groups to facilitate the selection of courses in a particular area of the field.

	<i>Credits</i>
AERO 480	Flight Control Systems
AERO 482	3.50
Avionic Navigation Systems	3.00
COEN 320	Introduction to Real-Time Systems
COMP 333	3.00
Data Analytics	3.00
COMP 339	Combinatorics
COMP 345	3.00
Advanced Program Design with C++	4.00
COMP 353	Databases
Databases	4.00
COMP 371	Computer Graphics
COMP 376	4.00
Introduction to Game Development	4.00
COMP 425	Computer Vision
COMP 426	4.00
Multicore Programming	4.00
COMP 428	Parallel Programming
Parallel Programming	4.00
COMP 432	Machine Learning
Machine Learning	4.00
COMP 442	Compiler Design
Compiler Design	4.00
COMP 444	System Software Design
System Software Design	4.00
COMP 445	Data Communication and Computer Networks
Data Communication and Computer Networks	4.00
COMP 451	Database Design
Database Design	4.00
COMP 465	Design and Analysis of Algorithms
Design and Analysis of Algorithms	3.00
COMP 472	Artificial Intelligence
Artificial Intelligence	4.00
COMP 473	Pattern Recognition
Pattern Recognition	4.00
COMP 474	Intelligent Systems
Intelligent Systems	4.00
COMP 475	Immersive Technologies
Immersive Technologies	4.00
COMP 476	Advanced Game Development
Advanced Game Development	4.00
COMP 477	Animation for Computer Games
Animation for Computer Games	4.00
COMP 478	Image Processing
Image Processing	4.00
COMP 479	Information Retrieval and Web Search
Information Retrieval and Web Search	4.00
COMP 498	Topics in Computer Science
Topics in Computer Science	3.00
COMP 499	Topics in Computer Science with Lab
Topics in Computer Science with Lab	4.00
SOEN 298	System Hardware Lab
System Hardware Lab	1.00
SOEN 344	Advanced Software Architecture and Design
Advanced Software Architecture and Design	3.00
SOEN 387	Web-Based Enterprise Application Design
Web-Based Enterprise Application Design	3.00
SOEN 422	Embedded Systems and Software
Embedded Systems and Software	4.00
SOEN 423	Distributed Systems
Distributed Systems	4.00
SOEN 448	Management of Evolving Systems
Management of Evolving Systems	3.00
SOEN 471	Big Data Analytics
Big Data Analytics	4.00
SOEN 487	Web Services and Applications
Web Services and Applications	4.00
SOEN 491	Software Engineering Project
Software Engineering Project	1.00
SOEN 498	Topics in Software Engineering
Topics in Software Engineering	3.00
SOEN 499	Topics in Software Engineering with Lab
Topics in Software Engineering with Lab	4.00
ENGR 411	Special Technical Report
	1.00

Computer Games Group

Credits

COMP 345	Advanced Program Design with C++	4.00
COMP 371	Computer Graphics	4.00
COMP 376	Introduction to Game Development	4.00
COMP 475	Immersive Technologies	4.00
COMP 476	Advanced Game Development	4.00
COMP 477	Animation for Computer Games	4.00

Data Engineering Group

Credits

COMP 333	Data Analytics	3.00
COMP 353	Databases	4.00
COMP 432	Machine Learning	4.00
COMP 479	Information Retrieval and Web Search	4.00
SOEN 471	Big Data Analytics	4.00

Real-Time, Embedded, and Avionics Software Group		Credits
AERO 480	Flight Control Systems	3.50
AERO 482	Avionic Navigation Systems	3.00
COEN 320	Introduction to Real-Time Systems	3.00
COMP 345	Advanced Program Design with C++	4.00
COMP 444	System Software Design	4.00
SOEN 422	Embedded Systems and Software	4.00
SOEN 423	Distributed Systems	4.00

Web Services and Applications Group		Credits
COMP 353	Databases	4.00
COMP 445	Data Communication and Computer Networks	4.00
COMP 479	Information Retrieval and Web Search	4.00
SOEN 387	Web-Based Enterprise Application Design	3.00
SOEN 487	Web Services and Applications	4.00

71.70.10 Course Descriptions

Students from outside the Gina Cody School of Engineering and Computer Science who are not registered in a Computer Science program may not take more than five COMP courses numbered higher than 212.

Students from outside the Gina Cody School of Engineering and Computer Science who are registered for the Minor in Computer Science may not take more than 30 credits of COMP courses numbered higher than 212.

COMPUTER SCIENCE

COMP 108 **Computer Science C.Edge Option Reflective Learning I** (3 credits)

Prerequisite: Permission of the GCS. This course is a reflective learning module for students in their related field which is based on their academic requirements and their first C.Edge term.

COMP 208 **Computer Science C.Edge Option Reflective Learning II** (3 credits)

Prerequisite: COMP 108 and permission of the GCS. This course expands on the students' second C.Edge term in their related field of study to further develop their knowledge and work-related skills.

COMP 218 **Fundamentals of Programming** (3 credits)

Prerequisite: MATH 201 or equivalent (no prior experience with computers is assumed). Computers and computing; problem solving with computers, basic data types, expressions, assignments, control structures, simple library functions, programmer-defined functions, arrays of basic types. Basic elements of object-oriented programming: classes, objects and methods. Lectures: three hours per week. Tutorial: one hour per week.

NOTE: Students who have received credit for COMP 248 or COEN 243 may not take this course for credit.

NOTE: This course may not be taken for credit in the regular undergraduate programs in the Gina Cody School of Engineering and Computer Science.

COMP 228 **System Hardware** (3 credits)

Prerequisite: COMP 248; MATH 203 or Cegep Mathematics 103 or NYA previously or concurrently; MATH 204 or Cegep Mathematics 105 or NYC previously or concurrently. Levels of system abstraction and von Neumann model. Basics of digital logic design. Data representation and manipulation. Instruction set architecture. Processor internals. Assembly language programming. Memory subsystem and cache management. I/O subsystem. Introduction to network organization and architecture. Lectures: three hours per week. Tutorial: two hours per week.

NOTE: Students who have received credit for SOEN 228 may not take this course for credit.

COMP 232 **Mathematics for Computer Science** (3 credits)

Prerequisite: MATH 203 or Cegep Mathematics 103 or NYA; MATH 204 or Cegep Mathematics 105 or NYC. Sets. Propositional logic and predicate calculus. Functions and relations. Elements of number theory. Mathematical reasoning. Proof techniques: direct proof, indirect proof, proof by contradiction, proof by induction. Lectures: three hours per week. Tutorial: two hours per week.

NOTE: Students who have received credit for COMP 238 or COEN 231 may not take this course for credit.

COMP 233 **Probability and Statistics for Computer Science** (3 credits)

Prerequisite: MATH 205 or Cegep Mathematics 203 or NYB. Combinatorics. Axioms of probability. Conditional probability. Discrete and continuous probability distributions. Expectation and moments. Hypothesis testing. Parameter estimation. Correlation and linear regression. Applications to computer science. Lectures: three hours per week. Tutorial: two hours per week.

NOTE: Students who have received credit for BIOL 322, ENGR 371, STAT 249, STAT 250, COMM 215, MAST 221, MAST 333 may not take this course for credit.

COMP 248 *Object-Oriented Programming I* (3.5 credits)

Prerequisite: MATH 204 or Cegep Mathematics 105 or NYC previously or concurrently. Introduction to programming. Basic data types, variables, expressions, assignments, control flow. Classes, objects, methods. Information hiding, public vs. private visibility, data abstraction and encapsulation. References. Arrays. Lectures: three hours per week. Tutorial: two hours per week. Laboratory: one hour per week.

COMP 249 *Object-Oriented Programming II* (3.5 credits)

Prerequisite: COMP 248; MATH 203 or Cegep Mathematics 103 or NYA; MATH 205 or Cegep Mathematics 203 or NYB previously or concurrently. Design of classes. Inheritance. Polymorphism. Static and dynamic binding. Abstract classes. Exception handling. File I/O. Recursion. Interfaces and inner classes. Graphical user interfaces. Generics. Collections and iterators. Lectures: three hours per week. Tutorial: two hours per week. Laboratory: one hour per week.

COMP 326 *Computer Architecture* (3 credits)

Prerequisite: COMP 346. Computer architecture models: control-flow and data-flow. Concurrency and locality, data dependency theory. Instruction level parallelism. Instruction scheduling. Pipelined processors. Vector processors. Thread level parallelism. Multiprocessors. Shared memory models. Coherence protocols. Interconnection networks. Performance issues. Advanced topics in contemporary computer architectures. Lectures: three hours per week. Tutorial: one hour per week.

COMP 333 *Data Analytics* (3 credits)

Prerequisite: COMP 233 or ENGR 371; COMP 352; ENCS 282. This course introduces the process of data analytics with the aid of examples from several disciplines. It covers data wrangling: extract-transform-load (ETL), cleaning, structuring, integration; data analytics activities: description, prescription, modelling, simulation, optimization, storytelling; and the Python ecosystem: language, libraries, and Jupyter environment. Lectures: three hours per week.

COMP 335 *Introduction to Theoretical Computer Science* (3 credits)

Prerequisite: COMP 232 or COEN 231; COMP 249 or COEN 244. Finite state automata and regular languages. Push-down automata and context-free languages. Pumping lemmas. Applications to parsing. Turing machines. Undecidability and decidability. Lectures: three hours per week. Tutorial: one hour per week.

COMP 339 *Combinatorics* (3 credits)

Prerequisite: COMP 232 or 18 credits in post-Cegep Mathematics. General principles of counting, permutations, combinations, identities, partitions, generating functions, Fibonacci numbers, Stirling numbers, Catalan numbers, principle of inclusion-exclusion. Graphs, subgraphs, isomorphism, Euler graphs, Hamilton paths and cycles, planar graphs, Kuratowski's Theorem, trees, colouring, 5-colour theorem, matching, Hall's theorem.

NOTE: Students who have received credit for MATH 339 may not take this course for credit.

COMP 345 *Advanced Program Design with C++* (4 credits)

Prerequisite: COMP 352 previously or concurrently. Introduction to C++. I/O with stream classes. Pointers and their uses. The Standard Template Library (STL): containers, algorithms, iterators, adaptors, function objects. Class design: constructors, destructors, operator overloading, inheritance, virtual functions, exception handling, memory management. Advanced topics: libraries, locales, STL conventions, concurrency, template metaprogramming. Applications of C++: systems, engineering, games programming. Project. Lectures: three hours per week. Laboratory: two hours per week.

COMP 346 *Operating Systems* (4 credits)

Prerequisite: COMP 228 or SOEN 228; COMP 352. Fundamentals of operating system functionalities, design and implementation. Multiprogramming: processes and threads, context switching, queuing models and scheduling. Interprocess communication and synchronization. Principles of concurrency. Synchronization primitives. Deadlock detection and recovery, prevention and avoidance schemes. Memory management. Device management. File systems. Protection models and schemes. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week.

NOTE: Students who have received credit for COEN 346 may not take this course for credit.

COMP 348 *Principles of Programming Languages* (3 credits)

Prerequisite: COMP 249. Survey of programming paradigms: Imperative, functional, and logic programming. Issues in the design and implementation of programming languages. Declaration models: binding, visibility, and scope. Type systems, including static and dynamic typing. Parameter passing mechanisms. Hybrid language design. Lectures: three hours per week. Tutorial: one hour per week.

COMP 352 *Data Structures and Algorithms* (3 credits)

Prerequisite: COMP 232 previously or concurrently; COMP 249. Abstract data types: stacks and queues, trees, priority queues, dictionaries. Data structures: arrays, linked lists, heaps, hash tables, search trees. Design and analysis of algorithms: asymptotic notation, recursive algorithms, searching and sorting, tree traversal, graph algorithms. Lectures: three hours per week. Tutorial: one hour per week.

NOTE: Students who have received credit for COEN 352 may not take this course for credit.

COMP 353 *Databases* (4 credits)

Prerequisite: COMP 232 or COEN 231; COMP 352 or COEN 352. Introduction to database management systems. Conceptual database design: the entity-relationship model. The relational data model and relational algebra: functional dependencies and

normalization. The SQL language and its application in defining, querying, and updating databases; integrity constraints; triggers. Developing database applications. Other data models: Datalog. Object-oriented data model and ODL. Semi-structured data. Project. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week.

COMP 354 *Introduction to Software Engineering* (4 credits)

Prerequisite: COMP 352; ENCS 282. Software development process models (e.g. linear vs. iterative). Project management; roles, activities and deliverables for each software life cycle phase. Requirements management: analysis, elicitation, and scope. Architecture, design and the mapping of requirements to design and design to implementation. Traceability. Software quality assurance: verification, validation and the role of testing. Maintenance and evolution. Project. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week.

NOTES: 1. Students who have received credit for SOEN 341 may not take this course for credit.

2. Students in the BEng in Software Engineering program may not take this course for credit.

COMP 361 *Elementary Numerical Methods* (3 credits)

Prerequisite: COMP 232, 249. Vector and matrix norms. Numerical methods for solving linear systems, Gaussian elimination, LU decomposition, error analysis. Numerical solution of nonlinear equations, Newton's method, fixed point iterations. Interpolation and approximation, Taylor, Lagrange, Chebyshev and Legendre polynomials. Cubic spline interpolation. Numerical differentiation, numerical integration, Gauss quadrature. Discrete least-squares approximation. Initial value problems in ordinary differential equations, stiff differential equations. Boundary value problems in ordinary differential equations. Lectures: three hours per week. Tutorial: one hour per week.

NOTE: Students who have received credit for ENGR 391 or MAST 334 may not take this course for credit.

COMP 367 *Techniques in Symbolic Computation* (3 credits)

Prerequisite: COMP 232 or MAST 217; COMP 248 or MAST 234. Symbolic computation and its use in pure and applied mathematics, in particular in algebra, number theory, cryptography, coding theory, and combinatorics. Programming in a symbolic computing system (e.g. MAPLE).

NOTE: Students who have received credit for MAST 332 may not take this course for credit.

COMP 371 *Computer Graphics* (4 credits)

Prerequisite: COMP 232 or COEN 231; COMP 352 or COEN 352. Introduction to computer graphics and graphics hardware. Introduction to graphics API and graphics systems architecture. Mathematics of 2D and 3D transformations, and 2D and 3D viewing. Colour and basic rendering algorithms. Visual realism and visibility. Illumination and shading, global illumination techniques, and textures. Introduction to curves and surfaces, and 3D object modelling. Introduction to computer animation. Project. Lectures: three hours per week. Laboratory: two hours per week.

COMP 376 *Introduction to Game Development* (4 credits)

Prerequisite: COMP 371. Introduction to design and implementation aspects of computer gaming: basic game design, storytelling and narratives, and game genres. Virtual environments, 2D and 3D game engines, and game development tools. Character development, gameplay strategies, level design in games, and user interfaces. Architecture of game consoles, analog and digital controllers, and the incorporation of graphics, sound, and music in game implementations. Project. Lectures: three hours per week. Laboratory: two hours per week.

COMP 425 *Computer Vision* (4 credits)

This course introduces basic techniques and concepts in computer vision including image formation, grouping and fitting, geometric vision, recognition, perceptual organization, and the state-of-the art software tools. Students learn fundamental algorithms and techniques, and gain experience in programming vision-based components: in particular, how to program in OpenCV, a powerful software interface used to process data captured from passive and active sensors. A project is required. Laboratory: two hours per week.

NOTE: Students who have received credit for this topic under a COMP 498 or 499 number may not take this course for credit.

COMP 426 *Multicore Programming* (4 credits)

Prerequisite: COMP 346 or COEN 346. Fundamental concepts of computer architecture. Architecture of the selected multicore platform. Review of shared-memory parallel programming. The difficulties inherent to parallel programming. Scalability of programming models. The stream programming model for multicore. Implicit and explicit threading. Implicit and explicit orchestration of data movement, both on chip and off. Adapting standard algorithms to multicore. Critical assessment of the available system-software support. Project. Lectures: three hours per week. Laboratory: two hours per week.

COMP 428 *Parallel Programming* (4 credits)

Prerequisite: COMP 346 or COEN 346. Parallel programming techniques as a natural extension to sequential programming. Overview of parallel programming architectures and models. Parallel programming issues: locality, granularity, scheduling, data decomposition and distribution, load balancing, communication and synchronization, determinacy and non-determinacy, cost and performance. Techniques and tools for message-passing parallel programming. Case studies. Project. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week.

COMP 432 *Machine Learning* (4 credits)

Prerequisite: COMP 352. This course introduces conceptual and practical aspects of machine learning. Concepts include regression, classification, maximum likelihood estimation, discriminative vs. generative modelling, generalization, supervised

learning, unsupervised learning, semi-supervised learning and transfer learning. Methods include linear models, mixture models, nearest neighbours, support vector machines, random forests, boosting, and basics of deep learning. A project is required. Lectures: three hours per week. Laboratory: two hours per week.

COMP 442 Compiler Design (4 credits)

Prerequisite: COMP 228 or SOEN 228 or COEN 311; COMP 335; COMP 352 or COEN 352. Compiler organization and implementation: lexical analysis and parsing, syntax-directed translation, code optimization. Run-time systems. Project. Lectures: three hours per week. Laboratory: two hours per week.

COMP 444 System Software Design (4 credits)

Prerequisite: COMP 346. Detailed examination of the design, implementation and system call interface of a contemporary operating system: its kernel, file system, process and thread management including scheduling, file system design and implementation, memory management, device management, I/O management, interprocess communication and synchronization mechanisms, system call interface, interrupt handling, and other advanced issues. Project. Lectures: three hours per week. Laboratory: two hours per week.

COMP 445 Data Communication and Computer Networks (4 credits)

Prerequisite: COMP 346. Network architectures: OSI and Internet models. Link layer: error detection, multiple access protocols, addressing. Local area networks: Ethernet, ATM, switches and hubs. Network layer: forwarding and routing, IP, routing algorithms, multicast. Transport layer: connectionless and connection-oriented transport, reliable data transport, congestion control, QoS, UDP and TCP. Application layer: DNS, the web and http, file transfer, and email. Introduction to network security, multimedia protocols and wireless networking. Lectures: three hours per week. Laboratory: two hours per week.

COMP 451 Database Design (4 credits)

Prerequisite: COMP 353. Storage management. Buffer management. Data organization. Index structures. Query optimization and execution. Transaction management. Recovery. Concurrency control. Database performance analysis and tuning. New trends in database technology. Project. Lectures: three hours per week. Laboratory: two hours per week.

COMP 465 Design and Analysis of Algorithms (3 credits)

Prerequisite: COMP 232 or COEN 231; COMP 339; COMP 352 or COEN 352. Order statistics: worst-case, average-case and amortized analysis. Algorithm design techniques: greedy algorithms, dynamic programming. Selected algorithms from graph theory, linear programming, number theory, string matching, and computational geometry. A survey of hard problems, NP-completeness, and approximation algorithms. Lectures: three hours per week.

COMP 472 Artificial Intelligence (4 credits)

Prerequisite: COMP 352 or COEN 352. This course initially describes the scope and history of Artificial Intelligence. Then it covers knowledge representation, heuristic search, game playing and planning. Finally, it introduces the topics of machine learning, genetic algorithms and natural language processing. A project is required. Lectures: three hours per week. Laboratory: two hours per week.

COMP 473 Pattern Recognition (4 credits)

Prerequisite: COMP 352. Preprocessing. Feature extraction and selection. Similarity between patterns and distance measurements. Syntactic and statistical approaches. Clustering analysis. Bayesian decision theory and discriminant functions. Neural networks and machine learning. Applications. Project. Lectures: three hours per week. Laboratory: two hours per week.

COMP 474 Intelligent Systems (4 credits)

Prerequisite: COMP 352 or COEN 352. Rule-based expert systems, blackboard architecture, and agent-based. Knowledge acquisition and representation. Uncertainty and conflict resolution. Reasoning and explanation. Design of intelligent systems. Project. Lectures: three hours per week. Laboratory: two hours per week.

COMP 475 Immersive Technologies (4 credits)

Prerequisite: COMP 371. This course covers the fundamentals of immersive technologies, a brief history and overview of immersive technologies, analyzes case studies of interactive experiences using immersive technologies, and identifies the main challenges of the current state of the art. Furthermore, it covers the basic principles of 3D graphics for creating virtual assets and environments, and basic concepts and technologies for interaction. A project provides hands-on experience in the design and development of interactive experiences with the user of immersive technologies. Lectures: three hours per week.

COMP 476 Advanced Game Development (4 credits)

Prerequisite: COMP 361 or ENGR 391; COMP 376. Introduction to advanced aspects of computer games. Game engine design. Artificial Intelligence (AI): non-player character movement, coordinated movement, pathfinding, world representations; decision making; tactical AI, strategic AI, learning in games. Physics-based techniques: collision detection and response. Networked gaming: multi-player games, networking and distributed game design, mobile gaming. Improving realism: cut scenes, 3D sound. Project. Lectures: three hours per week. Laboratory: two hours per week.

COMP 477 Animation for Computer Games (4 credits)

Prerequisite: COMP 361 or ENGR 391; COMP 371. Introduction to the algorithms, data structures, and techniques used in modelling and rendering dynamic scenes. Topics include principles of traditional animation, production pipeline, animation

hardware and software, orientation representation and interpolation, modelling physical and articulated objects, forward and inverse kinematics, motion control and capture, key-frame, procedural, and behavioural animation, camera animation, scripting system, and free-form deformation. Project. Lectures: three hours per week. Laboratory: two hours per week.

COMP 478 *Image Processing* (4 credits)

Prerequisite: COMP 352. Digital image fundamentals, image transforms (Fourier, Walsh, Haar, Hotelling, wavelet), image enhancement (histogram processing, spatial filtering, high- and low-pass filtering), image restoration, image compression (elements of information theory, image compression models, error-free compression, lossy compression, image compression standards), image segmentation (line detection, Hough transform, edge detection and linking, thresholding, region splitting and merging), representation and description (chain codes, signatures, skeletons, shape descriptors, moments, texture). Project. Lectures: three hours per week. Laboratory: two hours per week.

COMP 479 *Information Retrieval and Web Search* (4 credits)

Prerequisite: COMP 233 or ENGR 371; COMP 352. Basics of information retrieval (IR): boolean, vector space and probabilistic models. Tokenization and creation of inverted files. Weighting schemes. Evaluation of IR systems: precision, recall, F-measure. Relevance feedback and query expansion. Application of IR to web search engines: XML, link analysis, PageRank algorithm. Text categorization and clustering techniques as used in spam filtering. Project. Lectures: three hours per week. Laboratory: two hours per week.

COMP 490 *Computer Science Project I* (3 credits)

Prerequisite: ENCS 282: completion of 60 credits; permission of the Department. Students work on a computer science project under the supervision of a faculty member and submit a suitable written report on the work carried out. Students planning to register for this course should consult with the Department prior to registration in the final year of study.

NOTE: Students can register for COMP 490 by itself or, with the permission of the Department, students can register for COMP 490 and 492 concurrently and carry out a major project.

COMP 492 *Computer Science Project II* (3 credits)

Prerequisite: COMP 490 previously or concurrently; permission of the Department. Students work on a computer science project under the supervision of a faculty member and submit a suitable written report on the work carried out. Students planning to register for this course should consult with the Department prior to registration in their final year of study.

NOTE: Students can register for COMP 492 by itself or, with the permission of the Department, students can register for COMP 490 and 492 concurrently and carry out a major project.

COMP 493 *(also listed as BIOL 493)*

Computational Biology Team Project (6 credits)

Prerequisite: Minimum of 54 credits in the BCompSc in Health and Life Sciences program; BIOL 367; COMP 352; or permission of the Department. Students form teams or join existing teams (such as those in research labs) and work under faculty supervision to solve a computational biology research problem or to carry out a computational biology research project. The research problem or project involves the utilization of knowledge of biology and of computing, involves computing lab and/or wet lab practice and contributes to any of the areas of computational biology. The project fosters teamwork and allows students to develop their project management, technical writing and oral presentation skills.

NOTE: Students who have received credit for BIOL 493 may not take this course for credit.

COMP 495 *Honours Seminar* (1 credit)

Prerequisite: ENCS 282; registration in the final year of the honours program. Students are required to attend a number of departmental seminars and submit a written report on them.

COMP 498 *Topics in Computer Science* (3 credits)

Prerequisite: Permission of the Department. This course may be offered in a given year upon the authorization of the Department. The content may vary from offering to offering and will be chosen to complement the available elective courses. Lectures: three hours per week.

COMP 499 *Topics in Computer Science with Lab* (4 credits)

Prerequisite: Permission of the Department. This course may be offered in a given year upon the authorization of the Department. The content may vary from offering to offering and will be chosen to complement the available elective courses. Lectures: three hours per week. Laboratory: two hours per week.

SOFTWARE ENGINEERING

SOEN 228 *System Hardware* (4 credits)

Prerequisite: MATH 203 or Cegep Mathematics 103, MATH 204 or Cegep Mathematics 105. This course covers the following topics: Boolean Algebra, Digital logic and the design of logic circuits; CPU design; addressing modes; instruction sets and sequencing; design of datapath and control units; memory systems and types; cache memory levels; I/O devices and their interconnection to the CPU; assembly language, and Interrupts. Lectures: three hours per week. Tutorial: two hours per week. Laboratory: two hours per week.

NOTE: Students who have received credit for COMP 228 may not take this course for credit.

SOEN 287 *Web Programming* (3 credits)

Prerequisite: COMP 248. This course covers the following topics: internet architecture and protocols; web applications through clients and servers; modern HTML and CSS; client-side programming using modern JavaScript and an overview of the advantages of some common modern JavaScript libraries; Regular Expressions; static website contents and dynamic page generation through server-side programming; preserving state (client-side) in web applications; deploying static and dynamic websites and content management systems vs. website deployment. Lectures: three hours per week. Tutorial: two hours per week.

SOEN 298 *System Hardware Lab* (1 credit)

Prerequisite: Permission of the undergraduate program director. Digital design exercises including assembly and testing corresponding to the SOEN 228 lab. Laboratory: two hours per week.

SOEN 321 *Information Systems Security* (3 credits)

Prerequisite: COMP 346 or COEN 346. This course covers the following topics: introduction to cryptography and cryptanalysis; threats, attacks, and vulnerabilities; security services (confidentiality, authentication, integrity); public key systems including Diffie-Hellman, RSA, Rabin; Digital Signature Schemes; Hash functions and MAC schemes; authentication protocols; network layers and security; protocols; Public Key Infrastructure (PKI); Transport Layer Security (TLS); firewalls; Intrusion Detection Systems; DNS security; Denial of Service Attacks; Penetration testing; Online Privacy and anonymity; Mix networks and Onion Routing; TOR; Malware; Botnets; Spam and Hot topics in Security and Privacy. Lectures: three hours per week. Tutorial: one hour per week.

SOEN 331 *Formal Methods for Software Engineering* (3 credits)

Prerequisite: COMP 232, 249. This course covers the following topics: property-based (axiomatic and algebraic) formalisms and model-based (abstract and visual) formalisms; axiomatic formalisms with temporal logic, assertions and contracts; algebraic formalisms through algebraic specifications; abstract formalisms through the Z and Object-Z specification languages; visual formalisms through automata (finite state machines and extended finite state machines). Lectures: three hours per week. Tutorial: two hours per week.

SOEN 341 *Software Process and Practices* (3 credits)

Prerequisite: COMP 352 or COEN 352 previously or concurrently; ENCS 282 previously or concurrently. This course covers the following topics: basic principles of software engineering; introduction to software process, including activities, phases, organization, roles, teamwork, and conflict resolution; notations used in software engineering; software development practices, including documentation, modern version control, review, testing, agile, and continuous integration. Lectures: three hours per week. Tutorial: one hour per week.

NOTE: Students who have received credit for COMP 354 may not take this course for credit.

SOEN 342 *Software Requirements and Deployment* (3 credits)

Prerequisite: SOEN 341. This course covers the following topics: requirements engineering; eliciting and coping with changing and evolving requirements; deployment of a software system under real-life functional and non-functional requirements scenarios; understanding how requirements impact early-stage and deployed software systems through all phases of engineering, including design, implementation, test and verification, deployment, and evolution. A project is required. Lectures: three hours per week. Tutorial: one hour per week.

SOEN 343 *Software Architecture and Design* (3 credits)

Prerequisite: SOEN 341; SOEN 342 previously or concurrently. This course covers the following topics: from requirements to design to implementation; planned vs. evolutionary design and refactoring; model-driven design and Unified Modelling Language (UML); structural and behavioural design descriptions and specifications; general and domain-specific design principles, patterns and idioms; introduction to software architecture (styles and view models); design quality; architectural debt; design smells; refactoring Anti-Patterns to Patterns; design rationale. Lectures: three hours per week. Tutorial: one hour per week.

SOEN 344 *Advanced Software Architecture and Design* (3 credits)

Prerequisite: SOEN 343. This course covers the following topics: architectural activities, roles, and deliverables; architectural view models; architectural styles (including client-server, layered, pipes-and-filters, event-based, process control) and frameworks; architectural analysis and the interplay with requirements elicitation; notations for expressing architectural designs, structural and behavioural specifications; from architectural design to detailed design; domain specific architectures and design patterns; evaluation and performance estimation of designs; advanced object-oriented design patterns and idioms. Lectures: three hours per week. Tutorial: one hour per week.

SOEN 345 *Software Testing, Verification and Quality Assurance* (3 credits)

Prerequisite: SOEN 343 previously or concurrently. This course covers the following topics: unit testing and test-driven development; characterization testing and legacy system testing; mocking, dependency injection, and breaking system dependencies; integration and system testing; test planning and management; test order, prioritization, redundancy, and flaky tests; advanced topics including static analysis, bisection, and fuzzing; data migration testing and verification; continuous integration and delivery; DevOps testing and validation including darklaunching, A/B testing, feature toggles, and logging. Lectures: three hours per week. Tutorial: one hour per week.

SOEN 357 *User Interface Design* (3 credits)

Prerequisite: SOEN 341. This course covers the following topics: principles, standards and guidelines for user interface design; usability principles and user experience; standards and design rationale for user-centred design; task-centred design; rationalized design; usability engineering; user models; interface design process, including interface requirement gathering, conceptual design and prototyping, and evaluation; usability testing and analytic evaluation; data gathering and analysis techniques for qualitative and quantitative data; interface design documentation; design approaches for touch, gesture-based, and haptic interfaces. Lectures: three hours per week. Tutorial: one hour per week.

SOEN 363 *Data Systems for Software Engineers* (3 credits)

Prerequisite: COMP 352. This course covers the following topics: introduction to the current data ecosystem; relational databases; key-value databases; document databases; column databases; graph databases; RDF stores; parallel and distributed file systems, data processing engines; data stream analytics; and data infrastructure. Lectures: three hours per week. Tutorial: one hour per week.

SOEN 384 *Management, Measurement and Quality Control* (3 credits)

Prerequisite: ENCS 282; SOEN 341. Organization of large software development. Roles of team members, leaders, managers, stakeholders, and users. Tools for monitoring and controlling a schedule. Financial, organizational, human, and computational resources allocation and control. Project and quality reviews, inspections, and walkthroughs. Risk management. Communication and collaboration. Cause and effects of project failure. Project management via the Internet. Quality assurance and control. Lectures: three hours per week. Tutorial: one hour per week.

SOEN 385 *Control Systems and Applications* (3 credits)

Prerequisite: ENGR 213, 233. Mathematical modelling of dynamical systems; block diagrams; feedback; open and closed loops. Linear differential equations; time domain analysis; free, forced, and total response; steady state and transient response. Laplace transform and inverse transform; second order systems. Transfer functions and stability. Control system design: PID and root locus techniques. Computer simulation of control systems. Applications. Lectures: three hours per week. Tutorial: one hour per week.

SOEN 387 *Web-Based Enterprise Application Design* (3 credits)

Prerequisite: COMP 353 previously or concurrently; COMP 354 or SOEN 341; SOEN 287. This course covers the following topics: Hypertext Transfer Protocol (HTTP); client/server and layered architectures for Web-based Enterprise Applications (WEA); Application, Presentation, Domain and Data Source design patterns; Java servlets and Java Server Pages, and generating responses; authentication, security and transaction processing; system-level testing of web applications. Lectures: three hours per week. Tutorial: one hour per week.

SOEN 390 *Software Engineering Team Design Project* (3.5 credits)

Prerequisite: SOEN 345 and 357 previously or concurrently. Students work in teams to design and implement a software project from requirements provided by the coordinator. Each team will demonstrate the software and the testing of the software, and prepare adequate documentation for it. In addition, each team will generate a report based on the process of development. Lectures: two hours per week. Tutorial: one hour per week. Laboratory: three hours per week.

SOEN 422 *Embedded Systems and Software* (4 credits)

Prerequisite: COMP 346. This course covers the following topics: embedded computer system architectures; programming of interface and peripheral control registers; analog to digital conversion and motor control using pulse width modulation; interrupts, communication methods and their application to interface control and multi-computer systems; architecture and operating systems of advanced embedded designs; design and testing of integrated systems; advanced topics. Lectures: three hours per week. Tutorial one hour per week. Laboratory: two hours per week.

NOTE: Students who have received credit for COEN 421 may not take this course for credit.

SOEN 423 *Distributed Systems* (4 credits)

Prerequisite: COMP 346. This course covers the following topics: principles of distributed computing including scalability, transparency, concurrency, consistency, fault tolerance, high availability; client-server interaction technologies including interprocess communication, sockets, group communication, remote procedure call, remote method invocation, object request broker, web services; server design techniques including process replication, fault tolerance through passive replication, high availability through active replication, coordination and agreement, transactions and concurrency control. Lectures: three hours per week. Tutorial one hour per week. Laboratory: two hours per week.

SOEN 448 *Management of Evolving Systems* (3 credits)

Prerequisite: SOEN 342, 343. This course covers the following topics: software maintenance (corrective, perfective, and adaptive); software reuse; construction of reusable software; techniques for reverse engineering and re-engineering software; software development as "growing" software; long-term evolution of existing software systems. Lectures: three hours per week.

SOEN 471 *Big Data Analytics* (4 credits)

Prerequisite: COMP 352. This course focuses on the fundamentals of the big data terminology, concepts and technologies. For the technical aspects of big data management systems, the course focuses on big data engines, programming models and file systems. Specific techniques covered include supervised classification, recommender systems, data clustering, frequent itemsets mining, similarity search, data streams and graph analysis. A project provides extensive hands-on experience. Lectures: three hours per week. Laboratory: two hours per week.

SOEN 487 *Web Services and Applications* (4 credits)

Prerequisite: SOEN 387. This course covers the following topics: analysis and design of web services and applications; advanced architectures for the design, deployment, and testing of large multi-server web services and applications; Service Oriented Architecture (SOA); Electronic Commerce; security; load balancing; stress testing. Lectures: three hours per week. Tutorial: one hour per week. Laboratory: two hours per week.

SOEN 490 *Capstone Software Engineering Design Project* (4 credits)

Prerequisite: 75 credits in the program; SOEN 390. Students work in teams of at least four members to construct a significant software application. The class meets at regular intervals. Team members will give a presentation of their contribution to the project. Lectures: one hour per week. Laboratory: two hours per week. Two terms.

SOEN 491 *Software Engineering Project* (1 credit)

Prerequisite: Permission of the undergraduate program director. Theoretical or practical project in an advanced topic in software engineering.

SOEN 498 *Topics in Software Engineering* (3 credits)

Prerequisite: Permission of the Department. This course may be offered in a given year upon the authorization of the Department. The content may vary from offering to offering and will be chosen to complement the available elective courses. Lectures: three hours per week.

SOEN 499 *Topics in Software Engineering with Lab* (4 credits)

Prerequisite: Permission of the Department. This course may be offered in a given year upon the authorization of the Department. The content may vary from offering to offering and will be chosen to complement the available elective courses. Lectures: three hours per week. Laboratory: two hours per week.

COMPUTER SCIENCE IN HEALTH AND LIFE SCIENCES

Section 71.75

Faculty

Undergraduate Program Director
NEMATOLLAH SHIRI-VARNAAMKHAASTI, PhD *Concordia University; Associate Professor*

Location

Sir George Williams Campus
Engineering, Computer Science and Visual Arts Complex, Room: EV 003.139
514-848-2424, ext. 3000

Objectives

The Bachelor of Baccalaureate in Computer Science in Health and Life Sciences is offered in collaboration with the Department of Biology and shares a number of courses with the BSc Honours and Specialization programs in Systems and Information Biology. The detailed description of the BCompSc program can be found in this section and the detailed description of the Biology programs can be found in §31.030.

BCompSc in Health and Life Sciences provides students with the unique mix of interdisciplinary knowledge and skills needed to work at the boundary of computing and health and life sciences. Research and development in this field often spans biochemistry and biology as well as computing and engineering. It is essential that students gain sufficient knowledge of the theory, application and language of all the relevant fields to be able to work in interdisciplinary teams to investigate scientific and technical questions, solve problems, use and develop tools and techniques, and communicate effectively. Drawing from students with different backgrounds but with aptitudes for both biology and computing, this interdisciplinary program focuses on scholarship that extends beyond traditional boundaries and prepares the graduates to work in the diverse fields of health and life sciences.

71.75.1 Curriculum for the Degree of BCompSc in Health and Life Sciences

The BCompSc in Health and Life Sciences prepares students to explore and decipher the complexity and interdependency within biological systems; provides students with an understanding of techniques from computer science, mathematics, statistics and modelling; and develops students' skills in efficiently generating information and knowledge by optimal use of data analytics, while maintaining a rigorous training in empirical and experimental approaches.

71.75.2 Degree Requirements

The BCompSc in Health and Life Sciences constitutes a 90-credit program that consists of courses in the following groups: Computer Science Core, Complementary Core, Health and Life Sciences Core, Health and Life Sciences Electives, Mathematics Electives and General Electives.

BCompSc in Health and Life Sciences	<i>Credits</i>
Computer Science Core*	33.00
Complementary Core	6.00
Health and Life Sciences Core	24.00
Health and Life Sciences Electives	12.00
Mathematics Electives*	6.00
General Electives*	9.00
	<hr/>
	90.00

*The list of corresponding courses can be found in §71.70.2.

Complementary Core	<i>Credits</i>
ENCS 282 Technical Writing and Communication	3.00
ENCS 333 Research Methods, Ethics, Law and Regulation for Computational Biology	3.00
	<hr/>
	6.00

Health and Life Sciences Core		<i>Credits</i>
BIOL 261	Molecular and General Genetics	3.00
BIOL 266	Cell Biology	3.00
BIOL 367	Molecular Biology	3.00
BIOL 479	Computational Biology	3.00
BIOL 481	Genome Structure	3.00
CHEM 212	Analytical Chemistry for Biologists	3.00
CHEM 221	Introductory Organic Chemistry I	3.00
CHEM 271	Biochemistry I	3.00
		24.00

Health and Life Sciences Electives		<i>Credits</i>
BIOL 226	Biodiversity and Ecology	3.00
BIOL 364	Cell Physiology	3.00
BIOL 368	Genetics and Cell Biology Laboratory	3.00
BIOL 422	Advanced Statistics for Biological Sciences	3.00
BIOL 461	Advanced Genetics	3.00
BIOL 466	Advanced Techniques in Molecular Biology	3.00
BIOL 475	Biological Computing and Synthetic Biology	3.00
BIOL 480	Bioinformatics	3.00
BIOL 482	Functional Genomics	3.00
BIOL 484	Industrial and Environmental Biotechnology	3.00
BIOL 485	Agriculture and Agri-Food Biotechnology	3.00
BIOL 486	High-throughput Instrumentation	3.00
COEN 432	Applied Evolutionary and Learning Algorithms	3.00
COEN 433	Biological Computing and Synthetic Biology	3.00
COEN 434	Microfluidic Devices for Synthetic Biology	3.00
COMP 339	Combinatorics	3.00
COMP 353	Databases	4.00
COMP 361	Elementary Numerical Methods	3.00
COMP 465	Design and Analysis of Algorithms	3.00
COMP 472	Artificial Intelligence	4.00
COMP 478	Image Processing	4.00
COMP 479	Information Retrieval and Web Search	4.00
COMP 493	Computational Biology Team Project	6.00
ENGR 213	Applied Ordinary Differential Equations	3.00
ENGR 411*	Special Technical Report	1.00
SOEN 287	Web Programming	3.00
SOEN 387	Web-Based Enterprise Application Design	3.00

Electives may also be taken from amongst 300-level and 400-level courses in BIOL, COEN, COMP, SOEN with permission of the Department.

*Students missing one credit of the 90 credits to graduate may take ENGR 411 Special Technical Report (1 credit).

71.75.3 Extended Credit Program

Students admitted to an Extended Credit Program (ECP) under the provisions of Sections 13.3.2 or 13.8.1 must successfully complete a minimum of 120 credits including:

- 90 Program requirements as set out in Section 71.75.2
- 9 MATH 203³, 204³, 205³
- 6 PHYS 204³, 206³
- 6 CHEM 205³, 206³
- 3 BIOL 201³
- 6 Elective credits chosen from outside the Gina Cody School of Engineering and Computer Science (see Note).

Note: ECP elective credits may be chosen as follows:

- General Education Electives found in §71.110.
- Basic and Natural Science Courses found in §71.70.9.
- Courses not included in the above lists may be taken with prior approval of the undergraduate program director.

71.75.4 Honours Program

Students should refer to §16.2.4 of the Calendar for academic regulations for the honours program. The following regulations are additional requirements for the Honours BCompSc in Health and Life Sciences.

1. Applications to enter an honours program must be submitted to the Office of the Associate Dean (Student Academic Services) at least three months before the start of the term in which the student wishes to enter an honours program.
2. Students must complete at least 30 credits towards their degree before entering an honours program.
3. Students must have a GPA of at least 3.30.
4. Students who are required to withdraw from an honours program may continue in the regular program provided they are in acceptable or conditional standing according to the academic regulations in §71.10.3.

Course Requirements for Honours Programs

Honours students must fulfill the requirements of the program. In addition, to receive an honours degree, students must:

1. have a final graduation GPA of at least 3.30;
2. successfully complete the course BIOL 368 and one of the Computer Science (COMP) courses listed below as part of their Health and Life Sciences Electives;
3. successfully complete one course from those listed under "Project Courses" below as part of their General Electives.

Computer Science Courses		<i>Credits</i>
COMP 339	Combinatorics	3.00
COMP 353	Databases	4.00
COMP 465	Design and Analysis of Algorithms	3.00
COMP 479	Information Retrieval and Web Search	4.00

Project Courses		<i>Credits</i>
BIOL 490	Independent Study	6.00
COMP 490	Computer Science Project I	3.00
COMP 492	Computer Science Project II	3.00
COMP 493	Computational Biology Team Project	6.00

71.75.5 The Co-operative and C.Edge (Career Edge) Option

For a full description of the Co-operative and C.Edge Option, please refer to §24 and §71.70.7 of this Calendar.

Faculty

Undergraduate Program Director

NEMATOLLAH SHIRI-VARNAAMKHAASTI, PhD *Concordia University, Associate Professor*

Location

Sir George Williams Campus

Engineering, Computer Science and Visual Arts Complex, Room: EV 003.139
514-848-2424, ext. 3000

Objectives

The Gina Cody School of Engineering and Computer Science and the Faculty of Fine Arts have created a program of study which combines a comprehensive education in computer science and a complementary set of courses of equivalent value in the fine arts. This program resides in both Faculties. In the Gina Cody School of Engineering and Computer Science, it is offered under the aegis of the Bachelor of/Baccalaureate in Computer Science (BCompSc). According to their preferences and aspirations, students may apply either for a Bachelor of/Baccalaureate in Computer Science program, or a Bachelor of/Baccalaureate in Fine Arts program. The Fine Arts offering is described in §81.90. The Computer Science program is described below.

Curriculum

The BCompSc Joint Major in Computation Arts and Computer Science consists of 45 credits in Computer Science complemented by 45 credits of study in Fine Arts. It provides a foundation for the integration of the arts and computer science as hybrid digital media arts and multimedia productions.

The Computation Arts core focuses on three areas of digital media: image works, sound exploration, and 3D modelling/animation. Through the integration of theory and practice, the programs aim at developing interdisciplinary cultural and technological practices, for independent arts initiatives, industry, and client-based productions.

The core courses are open-ended and flexible to accommodate change that will run parallel to technological advancements in industry and give students a strong base in multimedia research. Design Art, Electroacoustics, Film Animation, and the Studio Electronic Arts provide the Fine Arts electives, which further supports the cross-disciplinary nature of the program directives. This program will give graduates the conceptual abilities and technical skills they need to practise as hybrid cultural workers in the rapidly expanding field of multimedia. Students will have many more options to fine-tune a multimedia program according to their individual needs and expectations. Courses have been restructured into three credits to facilitate computer lab access, and flexibility in course sequencing and offerings, as well as to accommodate completion of the program within a co-op structure. Students of Computation Arts must bear the costs of annual laboratory fees.

Structure of the Program

Joint Major in Computation Arts and Computer Science

The program consists of 45 credits in Computer Science and 45 credits in Fine Arts, as described below:

	Credits
Computer Science Core (see §71.70.2)	33.00
Computation Arts Core (see §81.90.2)	45.00
COMP 345 Advanced Program Design with C++	4.00
COMP 371 Computer Graphics	4.00
ENCS 282 Technical Writing and Communication	3.00
ENGR 411 Special Technical Report	1.00
	<hr/>
	90.00

Admission Requirements

The Joint Major in Computation Arts and Computer Science is limited to students who are enrolled in or simultaneously applying for the BCompSc and who are qualified for the Fine Arts component. Applicants must fulfill the admission requirements for the BCompSc (see §71.10.2) and be accepted into the BCompSc.

In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to the Major in Computation Arts. All applicants must submit a portfolio following the instructions outlined on the Design and Computation Arts website at concordia.ca/finearts/design.

MATHEMATICS AND STATISTICS AND COMPUTER SCIENCE

Section 71.85

Faculty

Undergraduate Program Director

NEMATOLLAH SHIRI-VARNAAMKHAASTI, PhD *Concordia University; Associate Professor*

Location

Sir George Williams Campus

Engineering, Computer Science and Visual Arts Complex, Room: EV 003.139
514-848-2424, ext. 3000

Objectives

The Gina Cody School of Engineering and Computer Science and the Faculty of Arts and Science have created a program of study which combines a comprehensive education in computer science and mathematics. This program resides in both Faculties. In the Gina Cody School of Engineering and Computer Science, it is offered under the aegis of the Bachelor of/Baccalaureate in Computer Science (BCompSc). According to their preferences and aspirations, students may apply either for a Bachelor of/Baccalaureate in Computer Science program, Bachelor of/Baccalaureate in Science program, or Bachelor of/Baccalaureate in Arts program. The Arts and Science offering is described in §31.200. The Computer Science program is described below.

Curriculum

The BCompSc Joint Major in Mathematics and Statistics and Computer Science provides a foundation for integrated studies in computer science and mathematics. The mathematics component of the program includes topics that overlap with computer science, such as modelling, symbolic computation, and combinatorics, as well as the standard topics of a mathematical curriculum.

Structure of the Program

The program consists of 90 credits.

Joint Major in Mathematics and Statistics and Computer Science	Credits
Computer Science Core (see §71.70.2)*	33.00
Complementary Core (see §71.70.2)	6.00
Mathematics and Statistics Core (see §31.200)	36.00
Computer Science Electives (see §71.70.2)	3.00
General Electives (see §71.70.2)	12.00
	90.00

*COMP 232 may be replaced by MAST 217. COMP 233 must be replaced by MAST 221.

Mathematics and Statistics Core	Credits
COMP 339 Combinatorics*	3.00
COMP 361 Elementary Numerical Methods**	3.00
COMP 367 Techniques in Symbolic Computation***	3.00
COMP 465 Design and Analysis of Algorithms	3.00
MAST 218 Multivariable Calculus I	3.00
MAST 219 Multivariable Calculus II	3.00
MAST 232 Mathematics with Computer Algebra	3.00
MAST 234 Linear Algebra and Applications I	3.00
MAST 235 Linear Algebra and Applications II	3.00

MAST 324	Introduction to Optimization	3.00
MAST 331	Mathematical Modelling	3.00
MAST 333	Applied Statistics	3.00
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		36.00

*COMP 339 is cross-listed with MATH 339.

**COMP 361 may be replaced by MAST 334.

***COMP 367 is cross-listed with MAST 332.

Admission Requirements

The Computer Science and Mathematics and Statistics program is restricted to students who are enrolled in or simultaneously applying for the BCompSc and who are qualified for the mathematics component. Applicants must fulfill the admission requirements for the BCompSc (see §71.10.2) and be accepted into the BCompSc. For admission requirements for the mathematics component, see §31.200.

Faculty

Chair

GOVIND GOPAKUMAR, PhD *Rensselaer Polytechnic Institute; Associate Professor*

Associate Chair

TANJA TAJMEL, PhD *Humboldt University of Berlin; Associate Professor*

Associate Professor

KETRA SCHMITT, PhD *Carnegie Mellon University*

Associate Professor Emerita

CATHARINE MARSDEN, PhD *McGill University, PEng*

Assistant Professor

BRANDIFF CARON, PhD *Virginia Polytechnic Institute and State University*

Senior Lecturer Emerita

NANCY ACEMIAN, PhD *Concordia University*

Lecturers

FARRAH FAYYAZ, PhD *Purdue University*

STUART JAMES MACMILLAN, PhD *Concordia University*

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus

Engineering, Computer Science and Visual Arts Complex, Room: EV 002.257

514-848-2424, ext. 5443

Objectives

The Centre for Engineering in Society (CES) has been created with two major objectives. The primary objective of the CES is to blend the teaching of engineering and technology with skills needed for students to become professionals who are responsible, articulate and ethical. The CES brings complementary skills and knowledge to engineering and information technology training by offering suitable courses.

An additional objective of the CES is to coordinate and manage those graduate and undergraduate courses in engineering, engineering mathematics, and computer science that are common to multiple departments within the Gina Cody School of Engineering and Computer Science.

CONCORDIA INSTITUTE FOR INFORMATION SYSTEMS ENGINEERING

Section 71.100

Faculty

Director

ABDESSAMAD BEN HAMZA, PhD *North Carolina State University*, PEng; Professor

Associate Director

JAMAL BENTAHAR, PhD *Université Laval*, PEng; Professor

Professors

CHADI ASSI, PhD *City University of New York*, PEng; Provost's Distinction

ANJALI AWASTHI, PhD *University of Metz*, PEng

NIZAR BOUGUILA, PhD *Université de Sherbrooke*, PEng

MOURAD DEBBABI, PhD *Université de Paris*

RACHIDA DSSOULI, PhD *Université de Montréal*

ROCH GLITHO, PhD *Royal Institute of Technology, Sweden*

AMIN HAMMAD, PhD *Nagoya University*

CHUN WANG, PhD *University of Western Ontario*, PEng

LINGYU WANG, PhD *George Mason University*, PEng

AMR YOUSSEF, PhD *Queen's University*, PEng

YONG ZENG, PhD *University of Calgary*, PEng

Associate Professors

JEREMY CLARK, PhD *University of Waterloo*

MOHAMMAD MANNAN, PhD *Carleton University*

ARASH MOHAMMADI, PhD *York University*

ANDREA SCHIFFAUEROVA, PhD *Université de Montréal*

JIA YUAN YU, PhD *McGill University*

Assistant Professors

MOHSEN GHAFOURI, PhD *École Polytechnique de Montréal*

WALTER LUCIA, PhD *University of Calabria*

SURYADIPTA MAJUMDAR, PhD *Concordia University*

FARNOOSH NADERKHANI, PhD *University of Toronto*

JUN YAN, PhD *University of Rhode Island*

Lecturers

AYDA BASYOUNI, PhD *Concordia University*

FERESHTEH MAFAKHERI, PhD *HEC Montréal*

Affiliate Professors

PRABIR BHATTACHARYA, PhD *University of Oxford*

URSULA EICKER, PhD *Heriot Watt University*

RUIXUAN LI, PhD *Huazhong University of Science and Technology*

JÜRGEN SCHUMACHER, PhD *University of Oldenburg*

ALF ZUGENMAIER, PhD *University of Freiburg, Germany*

Affiliate Associate Professors

FRANÇOIS COSQUER, PhD *Technical University of Lisbon*

STEPHANE DUFRESNE, PhD *Georgia Institute of Technology*

BENJAMIN FUNG, PhD *Simon Fraser University*, PEng

FREDDY LECUE, PhD *École des Mines de Saint-Étienne*

HADI OTROK, PhD *Concordia University*

KHALED SHABAN, PhD *University of Waterloo*

SANAA SHARAFEDDINE, PhD *Technical University of Munich*

FAYI ZHOU, PhD *University of Alberta*

Affiliate Assistant Professors

ASHKAN EBADI, PhD *Concordia University*
AIMAN HANNA, PhD *Concordia University, PEng*
ABBAS JAVADTALAB, PhD *University of Ottawa*
MAURICE KHABBAZ, PhD *Concordia University*
BABAK KHOSRAVIFAR, PhD *Concordia University*
MARIE JOSIE MONTPETIT, PhD *École Polytechnique*

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus
Engineering, Computer Science and Visual Arts Complex, Room: EV 007.640
514-848-2424, ext. 5847

Objectives

The Concordia Institute for Information Systems Engineering is an interdisciplinary fundamental research and R&D learning institute, housing state-of-the-art research in innovative applications of information systems to a wide range of areas, among them systems, telecommunications, software development, electronics, multimedia, aerospace, finance and banking, automotive, manufacturing, and building and construction management.

The Concordia Institute for Information Systems Engineering offers only graduate programs.

DEPARTMENT OF CHEMICAL AND MATERIALS ENGINEERING

Section 71.105

Faculty

Chair

ALEX DE VISSCHER, PhD *Ghent University, Belgium*, APEGGA; Professor

Professors

PAULA WOOD-ADAMS, PhD *McGill University*, PEng

ROLF WÜTHRICH, DSc *École Polytechnique Fédérale de Lausanne*, ing.

ZHIBIN YE, PhD *McMaster University*, PEng

Associate Professors

MELANIE HAZLETT, PhD *University of Houston*, PEng

SANA-ANBUHI-JAHANSOHI, PhD *McMaster University*

PANTCHO STOYANOV, PhD *McGill University*

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus

Engineering, Computer Science and Visual Arts Complex, Room: EV 002.285

514-848-2424, ext. 3488

Objectives

The Department of Chemical and Materials Engineering trains skilled engineers who find novel ways to solve problems that have significant impacts on everyday life, ranging from climate change to food security. Its faculty members are experts in fields such as green chemical processes, polymers and nanomaterials, new battery materials, environmental health diagnostics, and the fundamental study of the properties of materials. The Department places particular emphasis on developing sustainable solutions for the energy sector as well as other sectors. Montreal offers unique opportunities to work in the chemical and pharmaceutical industries, and in companies supplying the aerospace and transportation sector. The Department currently offers only graduate programs.

COMPLEMENTARY STUDIES FOR ENGINEERING AND COMPUTER SCIENCE STUDENTS

Section 71.110

To fulfill the requirements of the General Education Elective or General Electives, students may choose the courses from the three lists below. In some instances, students may have to complete specific prerequisites before taking any of the following courses.

Those prerequisite courses are not counted towards their programs unless they are specifically listed on the student's offer of admission or listed as courses required for the completion of their programs. The relevant prerequisites in each case are stated in the departmental course descriptions.

Students in the Extended Credit Program (ECP) or the Mature Entry Program (MEP) (see §14.2.3) or any other students who have been assigned credits in Humanities and Social Sciences must select those credits from the two corresponding lists below. Those credits cannot be chosen from the list of Other Complementary Studies.

Humanities

ARTH 353	Technology and Contemporary Art
ARTH 354	Studies in Interdisciplinarity in the Visual Arts
COMS 360	Mass Media
ENGL 224	The Creative Process
ENGL 233	Critical Reading
FLIT 230	Introduction aux cultures de la francophonie
FLIT 240	Introduction aux littératures de la francophonie
FMST 214	English-Canadian Film
FMST 215	Le cinéma québécois
HIST 202	Modern Europe
HIST 205	History of Canada, Post-Confederation
HIST 281	Film in History
HIST 283	The 20th Century: A Global History
LBCL 201	Great Books: Western History and Thought from Antiquity through the Renaissance
LBCL 202	Great Books: Western Culture and Expression from Antiquity through the Renaissance
LBCL 203	Great Books: Western History and Thought from the Reformation through Modernity
LBCL 204	Great Books: Western Culture and Expression from the Reformation through Modernity
PHIL 201	Problems of Philosophy
PHIL 210	Critical Thinking
PHIL 232	Introduction to Ethics
PHIL 233	Applied Ethics
PHIL 235	Biomedical Ethics
PHIL 275	From Modern to Postmodern: Philosophical Thought and Cultural Critique
PHIL 330	Contemporary Ethical Theory
THEO 202	Introduction to Biblical Studies
THEO 204	Introduction to Christian Ethics
THEO 233	Religious Pluralism in a Secular Culture

Social Sciences

ANTH 202	Introduction to Culture
ECON 201	Introduction to Microeconomics
ECON 203	Introduction to Macroeconomics
EDUC 230	Introduction to Philosophy of Education
ENCS 483	Creativity, Innovation and Critical Thinking in Science and Technology
ENCS 484	Development and Global Engineering
ENCS 485	Field Course in Engineering and Sustainable Development
GEOG 203	Canadian Environmental Issues
GEOG 204	Global Environmental Issues
GEOG 210	Geography of Global Change
GEOG 220	Place, Space, and Identity
INST 250	Introductory Information Literacy Skills
LING 222	Language and Mind: The Chomskyan Program
LING 300	Sociolinguistics
POLI 202	Introduction to Political Science
RELI 214	Religions of the West
RELI 215	Religions of Asia
RELI 216	Encountering Religions

RELI 310	Self and Other: Identity and Ethical Development
RELI 312	Justice and Social Conflict in a Globalized World
RELI 374	Religion and Science
SCPA 215	Economics for Public Policy and Community Development
SOCI 203	Introduction to Society
URBS 230	Urbanization: Global and Historical Perspectives
WSDB 290	Introduction to Historical Perspectives in Women's Studies
WSDB 291	Introduction to Contemporary Concerns in Women's Studies

Other Complementary Studies

The following courses may not be taken for credit by students in the Extended Credit Program (ECP) or the Mature Entry Program (MEP) to fulfill the additional six credits in Humanities and Social Sciences requirements.

MANA 201	Introduction to Business and Management
MANA 202	Human Behaviour in Organizations
MANA 300	Entrepreneurship: Launching Your Business
MARK 201	Introduction to Marketing

Please note the following:

- 1) Prior to registering, students who do not have any specified prerequisites for a course above must obtain permission of the relevant Department.
 - 2) An ESL course or an introductory course that deals with the acquisition of a language will not be considered as a General Education elective or a General Elective.
 - 3) Should students wish to take a course not listed above, they must receive written permission from the Student Academic Services Office of the Gina Cody School of Engineering and Computer Science prior to taking the course.
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Faculty of Fine Arts

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| 81.10 PROGRAMS AND ADMISSION REQUIREMENTS | 81.90 DESIGN AND COMPUTATION ARTS |
| | 81.90.1 Design |
| | 81.90.2 Computation Arts |
| 81.20 DEGREE REQUIREMENTS | 81.100 MUSIC |
| 81.30 INTERDISCIPLINARY STUDIES IN FINE ARTS | 81.110 STUDIO ARTS |
| 81.40 ART EDUCATION | 81.110.1 Studio Art |
| 81.50 ART HISTORY | 81.110.2 Ceramics |
| 81.60 MEL HOPPENHEIM SCHOOL OF CINEMA | 81.110.3 Fibres and Material Practices |
| 81.70 CONTEMPORARY DANCE | 81.110.4 Intermedia (Video, Performance and Electronic Arts) |
| 81.80 CREATIVE ARTS THERAPIES | 81.110.5 Painting and Drawing |
| | 81.110.6 Photography |
| | 81.110.7 Print Media |
| | 81.110.8 Sculpture |
| | 81.120 THEATRE |

Section 81

Dean

ANNIE GÉRIN, PhD *University of Leeds*

Associate Deans

KRISTINA HUNEAULT, PhD *University of Manchester; Faculty Relations and Inclusion*

ELAINE CHEASLEY PATERSON, PhD *Queen's University; Academic Programs and Pedagogy*

MJ THOMPSON, PhD *New York University; Research and Graduate Studies*

Location

Sir George Williams Campus

Engineering, Computer Science and Visual Arts Complex, Room: EV 2.705

514-848-2424, ext. 4600

concordia.ca/finearts

Objectives

The Faculty of Fine Arts is recognized internationally for its long-standing record of excellence in undergraduate education in the visual, performing, cinematic, design, and electronic arts. The Faculty strives to create an environment that reflects the openness and diversity of contemporary culture, with a strong commitment to integrating new technologies with traditional fine arts practices. Programs and courses in studio or academic disciplines situate students within both the pluralism of the university academic experience and an active urban arts milieu.

81.10 PROGRAMS AND ADMISSION REQUIREMENTS

General admission requirements are listed in §13. Specific requirements for admission to the various programs leading to the BFA degree are set out in the first column of the following listings. They refer to the table of Cegep profiles and other specific requirements defined below.

Profile

Requirements

0.00 Diploma of Collegial Studies (DEC — Diplôme d'études collégiales)

10.12 Mathematics 103, 105, 203

A Interview/Audition

G Letter of intent

K Submission of a portfolio of representative work

Programs offered:

For information concerning any of the following programs, please consult the calendar section listed opposite each program.

**Recommended
Profile and
Specific
Requirements**

Specializations:

Calendar Section

0.00, A,G	Acting for the Theatre	81.120
0.00, G,K	Art Education – Visual Arts	81.40
0.00, A,G,K	Design for the Theatre	81.120
0.00, G,K	Film Production	81.60
0.00	Film Studies	81.60
0.00, A	Jazz Studies	81.100
0.00, A	Music Performance	81.100
0.00, A	Music Composition	81.100
0.00, A,G	Performance Creation	81.120

Majors:

0.00, G,K	Art Education – Visual Arts	81.40
0.00	Art History	81.50
0.00	Art History and Film Studies	81.50, 81.60
0.00, G,K	Art History and Studio Art	81.50
0.00, G,K	Ceramics	81.110
0.00, 10.12, G,K	Computation Arts	81.90
0.00, A	Contemporary Dance	81.70
0.00, G,K	Design	81.90
0.00, G,K	Electroacoustic Studies	81.100
0.00, G,K	Fibres and Material Practices	81.110
0.00, G,K	Film Animation	81.60
0.00, G,K	Film Production	81.60
0.00	Film Studies	81.60
0.00, G	Interdisciplinary Studies in Sexuality	31.560
0.00, G,K	Intermedia (Video, Performance and Electronic Arts)	81.110
0.00, A	Music	81.100
0.00, G,K	Painting and Drawing	81.110
0.00, G,K	Photography	81.110
0.00, G,K	Print Media	81.110
0.00, G,K	Sculpture	81.110
0.00, G,K	Studio Art	81.110

Minors:

0.00, G,K	Art Education – Visual Arts	81.40
0.00	Art History	81.50
0.00, G	Cinema	81.60
0.00, G,K	Computation Arts	81.90
0.00, G,K	Electroacoustic Studies	81.100
0.00, G,K	Film Animation	81.60
0.00	Film Studies	81.60
0.00, G,K	Game Design	81.90
0.00	Interdisciplinary Studies in Sexuality	31.560
0.00, Theory Test	Music	81.100
0.00, G,K	Photography	81.110
0.00, G,K	Print Media	81.110
0.00	Theatre	81.120

Transfer Students

Applicants who have completed courses in other colleges or universities may be granted transfer credits towards their program at Concordia University. These transfer credits will normally be awarded as general credits and as such may not be equivalent to specific first-year courses at Concordia.

Applicants to a second undergraduate degree must complete a minimum of 60 credits, other than those credited towards the first degree, at least 36 of which must be taken in the new field of specialization (§16.2.2). Students transferring credits towards a first degree must complete a minimum of 45 credits at Concordia (see §16.2.2).

Students must complete all program and degree requirements, as well as the Faculty of Fine Arts residence requirements (see §81.20.2).

Mature Entry

General admission requirements to the 108-credit program (Mature Entry) are listed in §14. Students admitted into the Faculty of Fine Arts through the Mature Entry plan are required to complete 18 credits in addition to the 90 credits normally required for the BFA degree.

Extended Credit Program

Definition of the Extended Credit Program (ECP) is listed in §13.2. Students admitted to an Extended Credit Program in Fine Arts are required to complete an additional 30 credits for the degree. Transfer credits awarded for Ontario Academic Courses (OACs) must be applied towards the ECP portion of a student's degree program.

81.20 DEGREE REQUIREMENTS

Students preparing for the BFA degree require a minimum of 90 credits. Each credit represents, for the average student, a minimum of 45 hours of work spread across lectures, conferences, tutorials, studios, rehearsals or practice periods, tests, examinations, and personal work.

81.20.1 BFA Degree Requirements

1. A candidate for the BFA degree must have qualified for admission to, and successfully completed a program of concentration in the form of a specialization (see §16.2.4) or major (see §16.2.4) program in the Faculty of Fine Arts. A selection is made upon entry, prior to registration. The requirement of selecting a program upon entry should not be thought of as being necessarily a final commitment. Students wishing to transfer out of one degree program must satisfy the admission requirements of the program they seek to enter. Program changes are, however, subject to limitations where certain programs are in great demand. Students should be aware that to effect certain transfers they may be required to complete more than the 90 credits normally required for the degree.
 2. A candidate for graduation must satisfy the Fine Arts General Education requirement by successfully completing a minimum of six credits from course offerings outside the Fine Arts academic sectors (Visual Arts and Performing Arts). The non-Fine Arts academic sectors are defined as: Humanities, Social Sciences, Sciences, Business, Engineering and Computer Science. BFA students graduating with the Joint Major in Computation Arts and Computer Science program or the Specialization in Art Education – Visual Arts will be considered as having satisfied the General Education requirement. The courses FLIT 382; COMS 301, 304, 416, 434 can only be applied within a student's degree as electives from the Visual Arts sector and therefore do not fulfill the General Education requirement. This list is subject to modification.
 3. A candidate for graduation must have successfully completed the course FFAR 250⁶.
 4. A candidate for graduation normally may apply no more than 54 credits in studio work towards the 90 credits required for the BFA degree.
 5. The credits obtained for any course may not be used to satisfy the requirements of more than one program.
 6. Students may take a maximum of six ESL credits towards a 90- or 108-credit degree, and a maximum of 12 credits towards the 120-credit degree.
-

81.20.2 Residence Requirements

Students are subject to the university residence requirement (see §16.2.2) which states that of the 90 credits required for the BFA degree, a minimum of 45 credits must be taken at Concordia University. Combining both residence requirements implies that the full-time student must enrol for a minimum of two years of study at Concordia University.

To fulfill the residence requirements for a BFA degree with a concentration in:

1. Ceramics, Fibres and Material Practices, Painting and Drawing, Print Media, Sculpture, or Studio Art: a minimum of 30 credits in Studio Art and six credits in Art History must be completed at Concordia.
 2. Art Education – Visual Arts, Art History, Art History and Studio Art, Art History and Film Studies, Computation Arts, Design, Film Animation, Film Production, Film Studies, Photography, Contemporary Dance, or Intermedia (Video, Performance and Electronic Arts): at least half of the concentration requirements must be completed at Concordia.
 3. Performance Creation, Acting for the Theatre, or Design for the Theatre: a minimum of 30 credits from the Department of Theatre must be completed at Concordia.
 4. Music, Electroacoustic Studies, Jazz Studies, Music Performance, or Music Composition: a minimum of 30 credits required from the Department of Music must be completed at Concordia.
 5. Minor programs: at least half of the required credits must be completed at Concordia.
-

81.20.3 Course Load

The normal course load for students enrolled in the Faculty of Fine Arts is 30 credits per year for all full-time students, and a maximum of 18 credits per year for part-time students.

- i) Full-time students may not register for more than 18 credits of their maximum 30 credits in any studio area in any given academic year. Part-time students may not register for more than 12 credits.
- ii) Students may register for a maximum of six credits in which films are produced as a course requirement during any given academic year. See §81.60.2 for list of courses. Also, students are limited, during their degree program, to 18 credits in Film Production or 24 credits in Film Animation courses in which films are produced as a course requirement (§81.60.2).
- iii) Students may register for a maximum of six credits in Theatre Production in any given academic year, up to a maximum of 18 credits in all.
- iv) Students may register for a maximum of six credits in Music Private Study in any given academic year, up to a maximum of 12 credits in the Major in Music degree program, and 18 credits in a specialization in music degree program.
- v) Students may register for a maximum of nine credits in Independent Study courses in their degree program. In the case of disciplines not offering three-credit Independent Study courses, students may register for a maximum of two six-credit Independent Study courses in their degree program.

81.20.4 Academic Performance Requirements

The system used by the Faculty of Fine Arts to assess academic performance at the undergraduate level is based on the assessment grade point average (AGPA). See §16.3.10 for definition of AGPA.

Acceptable standing requires that a student obtain an AGPA of at least 2.00.

NOTE: Although a "C-" grade (1.70 grade points) is designated as satisfactory for an individual course in §16.1.11, an AGPA of 2.00 is required to remain in acceptable standing.

Conditional standing results when a student obtains an AGPA of less than 2.00, but at least 1.50. A student is not permitted to obtain two consecutive conditional standing assessments.

Students in conditional standing may not write supplemental examinations and will not be permitted to register for further study until their program has been approved by the appropriate advisor in their Faculty or department. They must obtain acceptable standing at the time of their next assessment.

Failed standing results when a student obtains an AGPA of less than 1.50, or conditional standing in two consecutive periods of assessment. Failed students may not write supplemental examinations. In order to continue in their program, failed students must apply for readmission through Student Academic Services. If readmitted, failed students will be placed on academic probation. In addition, there may be other conditions determined by the Faculty at the time of readmission. Decisions of the relevant authority in the Faculty are final. Failed students wishing to be admitted to another Faculty must apply through the Dean's Office of the Faculty to which they wish to be admitted. Credits achieved at another institution while on failed standing may not be transferred to a program at Concordia University. These credits, however, may be used to determine a student's potential for readmission. If 24 or more credits are successfully completed at another institution while on failed standing at Concordia, students will be required to submit a new application for program admission and not an application for readmission.

Graduation Requirements

Students must satisfy all course requirements, be in acceptable standing, and have a minimum final graduation GPA of 2.00.

Potential graduates who fail to meet the requirements of acceptable standing, but meet the requirements of conditional standing, will have the following options:

- a) register for an additional 12 credits and, at the next assessment, meet the requirements for acceptable standing;
or
- b) register for fewer than 12 additional credits. In this case, standing will be determined on the basis that these extra credits constitute an extension of the last assessment period.

For both option a) and option b), the additional courses taken must be selected in consultation with the student's department.

81.20.5 Lapsed Program

Students enrolled in a specialization or major program in the Faculty of Fine Arts who have not registered for a course for nine consecutive terms or more will have a lapsed notation entered on their student record. Lapsed students must meet with the appropriate advisor in order to resume their program and be made aware of possible program modifications. In some cases, students might be required to submit a new application.

81.30 INTERDISCIPLINARY STUDIES IN FINE ARTS

The following course is required for all Bachelor of/Baccalaureate in Fine Arts students. It is strongly recommended that students take this course in their first year.

FFAR 250 *Keywords: Reading the Arts Across the Disciplines* (6 credits)

This course offers students with first-year standing* in the Faculty of Fine Arts a broad introduction to ideas and aesthetics in the visual and performing arts in Canada. It focuses on key concepts shaping and shaped by artistic production and reception in all artistic disciplines. Students deepen their understanding of the cultural significance and the debate that occurs around keywords across the disciplines. Over the year, students extend their powers of reading, writing, and critical thinking in lectures and tutorials.

*Students with fewer than 30 credits completed in degree program.

The following courses are open to students outside the Faculty of Fine Arts. See the course notes regarding admission for students in Fine Arts programs.

FFAR 254 *Introduction to Food Studies: We Are What We Eat* (3 credits)

This course is an interdisciplinary introduction to the cultural and social processes of food creation and consumption. Students make connections between various aspects of the food world and their own roles and responsibilities within the food system. Through an exploration, not only of things eaten, but also of food spaces and food-related activities — including design, studio arts, and architecture — students discover that interactions with food are not as matter-of-fact as often assumed.

NOTE: Students who have received credit for this topic under a FFAR 298 number may not take this course for credit.

FFAR 255 *Art of Film Animation* (3 credits)

This course introduces animation to students with little or no background in cinema or animation studies. Topics covered include major producers of animation; concepts, such as character development; and individual artists and genres, such as anime. Upon completion of this course students are able to discuss cartoonality and naturalism as they relate to both mainstream and independent animation.

NOTE: Students who have received credit for this topic under a FFAR 298 number may not take this course for credit.

NOTE: This course cannot be applied within a BFA degree or any Fine Arts specialization, major or minor program.

FFAR 256 *Hip Hop: Past/Present/Future* (3 credits)

This course examines the subculture of hip hop in its contemporary and historic forms. Students study hip hop as a political and social movement that formed in reaction to the status quo in the United States and manifests through practices such as rapping, breakdancing and graffiti. The course covers a variety of media and perspectives through class discussions, self-directed writing, and assigned readings, which are oriented to increase the students' understanding of hip hop and its relationship to the changing nature of technology, corporate media, race relations and youth culture.

NOTE: Students who have received credit for this topic under a FFAR 398 number may not take this course for credit.

NOTE: This course may not be applied within a BFA degree or any Fine Arts specialization, major or minor program.

FFAR 257 *History and Visual Culture of Gaming* (3 credits)

This lecture course introduces students to digital games, their history and their relationship to contemporary art practices. Digital games are considered as a medium of play, social interaction and artistic expression. The course situates digital games in an (art) historical context in order to better understand concepts of play in a digital age and the relevance of games to current art practices, beginning with examples of earlier games and their role as material culture. Students then reconsider the roles played by the art, the artist and the player/gamer as they are situated at the intersection between art, play and technology. Class discussions address life in virtual spaces and the relationships of power, capital, gender, ethnicity and other identities to both games and contemporary digital media.

NOTE: Students who have received credit for this topic under a FFAR 298 number may not take this course for credit.

FFAR 258 *History of 20th-Century Fashion* (3 credits)

This course covers the history of fashion from pre-WWI through the end of the century with emphasis on Paris, London and later New York. Lectures cover important designers from each decade and other influences on fashion such as the impact of the economy, world wars and popular culture.

NOTE: Students who have received credit for this topic under a FFAR 298 number may not take this course for credit.

NOTE: This course cannot be applied within any Fine Arts specialization, major or minor program.

FFAR 259 *Art Forms of Bollywood* (3 credits)

This course focuses on one of the world's most popular film genres, Bollywood, which began in the 1930s. Students study the theory, culture and historical development of film in Mumbai as well as the components of a Bollywood film — plot, music and dance, with special emphasis on the films' songs. Screenings are part of the course.

NOTE: Students who have received credit for this topic under a FFAR 298 number may not take this course for credit.

NOTE: This course cannot be applied within any Fine Arts specialization, major or minor program.

FFAR 260 *The Movie Soundtrack* (3 credits)

This course focuses on the powerful auditory dimension of moving pictures. Since the late 1920s, a sophisticated discourse has been woven into the voice, sound effect and music recordings that accompany screen images, yet its presence and contribution is still largely unnoticed by the vast majority of viewers. Over the term, critical and listening skills are developed promoting a fuller appreciation and understanding of cinematic and televisual sound design, as well as teaching students how to use their ears as well as their eyes whenever the moving contents of a screen draw their attention.

NOTE: Students who have received credit for this topic under a FFAR 298 number may not take this course for credit.

NOTE: This course cannot be applied within any Fine Arts specialization, major or minor program.

FFAR 290 *(also listed as SOCI 290/SSDB 270)****HIV/AIDS: Cultural, Social and Scientific Aspects of the Pandemic*** (6 credits)

This course surveys the major issues and challenges of the HIV pandemic. Such topics as the biology of the virus, therapeutic, clinical and epidemiological research developments, the social costs of sexual taboos and discrimination, and media and artistic representation by and of people with HIV are presented by faculty and visiting community experts. The epidemics in the Western hemisphere, Africa, Asia, and other regions are addressed. Learning is based on lectures, weekly tutorials, and community involvement.

NOTE: Students who have received credit for FFAR 390, INTE 270, 390, SOCI 290, SSDB 270, or for this topic under a FFAR 398, INTE 398, or SOCI 399 number, may not take this course for credit.

FFAR 291 *HIV/AIDS: An Interdisciplinary Introduction to Scientific, Social and Cultural Aspects* (3 credits)

This course is an interdisciplinary survey of the major issues and challenges of the AIDS pandemic, introducing students to a broadly based overview of its scientific, social and cultural impacts. It also examines the interaction of personal and experiential perspectives with collective values, beliefs and behaviours in response to the health crisis worldwide and locally. Students examine the history of the pandemic and responses to it by governments, medical authorities, businesses, religious and community groups,

as well as artists and cultural producers. Readings and requirements are diverse in nature and it is possible to submit creative work as part of the course assignments.

NOTE: Students who have received credit for FFAR 290, 390, INTE 270, 390, SOCI 290, or for this topic under a INTE 398, COMS 399, or SOCI 399 number, may not take this course for credit.

FFAR 298 *Special Topics in Fine Arts* (3 credits)

A course at the introductory level which provides an opportunity for the study of specialized aspects of Fine Arts.

NOTE: This course may not be applied within a BFA degree or any Fine Arts specialization, major, or minor program.

FFAR 299 *Special Topics in Fine Arts* (6 credits)

A course at the introductory level which provides an opportunity for the study of specialized aspects of Fine Arts.

NOTE: This course may not be applied within a BFA degree or any Fine Arts specialization, major, or minor program.

FFAR 398 *Special Topics in Fine Arts* (3 credits)

A course which provides an opportunity for the study of specialized aspects of Fine Arts.

FFAR 399 *Special Topics in Fine Arts* (6 credits)

A course which provides an opportunity for the study of specialized aspects of Fine Arts.

Program

INTERDISCIPLINARY STUDIES IN SEXUALITY

The Major and Minor in Interdisciplinary Studies in Sexuality, offered jointly by the Faculty of Arts and Science and the Faculty of Fine Arts, draw their curriculum from a variety of disciplines. Their purpose is to investigate empirical, theoretical, and creative aspects of sexuality.

Please refer to §31.560 Simone de Beauvoir Institute and Women's Studies for details.

Courses

FASS 293 *Sexual Representation in the Arts* (3 credits)

This introductory course surveys selected issues in sexual representation in the arts, primarily in the West. Media from the visual and performing arts including recent digital and interactive technologies are considered as well as various genres such as the classical nude, autobiography and pornography. The impact of the Sexual Revolution, feminism, and intersectionality is analyzed, with an emphasis on the diversity of sexualities and aesthetics in both the traditional and contemporary artistic environments. Although not a studio course, students may submit creative work undertaken independently as a course assignment.

FASS 392 *Queer Theory* (3 credits)

Prerequisite: 30 university credits; SSDB 220 or SSDB 275, or permission of the Department. This course is a multidisciplinary survey of the basic post-1970 theories of sexual minorities and diversity, in their historical and cultural contexts. Authors from Michel Foucault to Eve Kosofsky Sedgwick are introduced, as well as the work of artists and performers from Derek Jarman to k.d. lang. The syllabus reflects the varying specializations of the instructors from year to year.

NOTE: Students who have received credit for INTE 392 may not take this course for credit.

Faculty

Chair

JUAN CARLOS CASTRO, PhD *University of British Columbia; Associate Professor*

Distinguished Professors Emeriti

STANLEY HORNER, MSc *Syracuse University*
LEAH SHERMAN, MA *New York University*

Professors

LORRIE BLAIR, PhD *Ohio State University*
RICHARD LACHAPELLE, PhD *Concordia University*
DAVID PARISER, DEd *Harvard University*
KATHLEEN VAUGHAN, PhD *York University*
VIVEK VENKATESH, PhD *Concordia University*

Associate Professors

ANITA SINNER, PhD *University of British Columbia*
MJ THOMPSON, PhD *New York University*

Senior Lecturer

AILEEN PUGLIESE CASTRO, MAT *Maryland Institute College of Art*

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus
Engineering, Computer Science and Visual Arts Complex, Room: EV 2.619
514-848-2424, ext. 4646

Department Objectives

The Art Education Department offers two teacher preparation programs that emphasize the student's development as artist, researcher, and professional. Students are expected to develop an artistic and teaching practice that connects conceptual understanding, critical reflection, and practical experience. The Major in Art Education – Visual Arts is a three-year program. In the first two years, students are introduced to the fundamentals of the field of art education. In the third year, students concentrate on professional practice and performance as community art educators in settings such as community centres, adult education programs, recreation programs, and museums.

The Specialization in Art Education – Visual Arts is a four-year program leading to teacher certification as an elementary- and secondary-school art specialist. The program conforms to the Ministère de l'Éducation et de l'Enseignement supérieur (MEES) requirements for an extended teaching practicum and preparation in visual arts. The number of practicum hours is determined by the MEES and may be subject to change.

The Minor in Art Education – Visual Arts is a 24-credit program designed to give students familiarity and ability with the basics of the theory and practice of community arts education, and may be particularly useful to visual artists who anticipate that some project-based teaching work will supplement their studio practice.

Programs

Students are responsible for fulfilling their particular degree requirements; hence, the following sequence must be read in conjunction with §81.20.

The superscript indicates credit value.

N.B. The BFA Specialization in Art Education – Visual Arts leads to teacher certification by the Ministère de l'Éducation et de l'Enseignement supérieur (MEES).

- 120 **BFA Specialization in Art Education – Visual Arts**
24 ARTE 220³, 230³, 320³, 330³, 340³, 420³, 422³, 424³
3 EDUC 301³ or 305³

- 9 ARTE 352³, 354³, 498³
- 15 ARTE 421³, 423³, 425⁹
- 6 Chosen from ARTE 398³ offerings
- 6 FFAR 250⁶
- 12 DRAW 200⁶; PTNG 200⁶
- 6 Studio Art courses chosen from FBRS 240⁶, 260⁶; CERA 230⁶; SCUL 210⁶
- 6 Studio Art electives
- 6 Art History courses chosen from Group C
- 6 Studio Art or Art History electives
- 6 Free electives
- 15 EDUC 210⁶, 445³, 450³, 454³

66 BFA Major in Art Education – Visual Arts

- 21 ARTE 220³, 230³, 320³, 330³, 340³, 432³, 434³
- 6 Studio Art courses chosen from CERA 230⁶; FBRS 240⁶, 260⁶; SCUL 210⁶; PTNG 200⁶
- 6 Studio Art electives
- 3 ARTE 398³
- 6 DRAW 200⁶
- 6 Chosen from ARTE 352³, 354³, 398³, 498³
- 6 Art History electives
- 6 Studio Art or Art History elective credits
- 6 EDUC 210⁶

NOTE: This program does not lead to teacher certification. Electives permit a wider choice in courses in preparation for graduate study in areas such as art therapy, museum education, recreation, and arts administration.

24 Minor in Art Education – Visual Arts

- 15 ARTE 203³, 320³, 330³, 432³, 434³
- 9 Art Education courses chosen from ARTE 352³, 354³, 398³, 498³

NOTE: Students may take up to six credits in ARTE 398.

NOTE: This program may be especially useful for students in the Major in Studio Arts or combined Major in Art History and Studio Arts who wish to learn the basics of community arts theory and practice.

81.40.1 Admission to the Specialization, Major, and Minor in Art Education – Visual Arts

In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to the Major in Art Education – Visual Arts and the Minor in Art Education – Visual Arts. All applicants must submit a *portfolio* of their own work, as well as a *letter of intent*, as part of the admission process.

For more information concerning these additional requirements and submission deadline dates, please visit the following website: concordia.ca/finearts/future-students/applying-undergraduate.

All successful applicants interested in the Specialization in Art Education – Visual Arts are automatically enrolled in the Major in Art Education – Visual Arts. The Specialization in Art Education – Visual Arts is offered at the third-year and fourth-year levels. Upon completion of the second year (completion of 60 credits including ARTE 220, 230, 320, 330), students in the Major in Art Education – Visual Arts may apply for transfer to the Specialization in Art Education – Visual Arts program. Admission to the Specialization in Art Education – Visual Arts is assessed on the basis of the applicant's suitability for school-based teaching, grades for courses completed in the first two years, a letter of intent, two references, the completion of a 70-hour internship in an elementary school (ARTE 230), and, in some cases, an interview. Students must apply to the Department by the deadline of March 1.

Academic Standing

To remain in good academic standing in the specialization and be recommended for the Quebec Art Specialist teaching permit, students must:

1. Achieve at least a "B" grade in the practicum courses ARTE 420, 423, and 425.
 - a. Students who fail any of the above courses are required to withdraw from the specialization program.
 - b. Students who obtain a passing grade in any of the above courses that is below a "B" will be placed on conditional standing within the program and will be so informed in writing. These students will be allowed to repeat the practicum only once in order to achieve the required grade. Students who do not achieve the required grade in the repeated course will be required to withdraw from the specialization program.
 2. Maintain an overall grade average of "B-" or higher in courses of the third and fourth years. Students who do not maintain the minimum grade average during that time will be required to withdraw from the specialization program.
- NOTE: ARTE 423 is evaluated on a pass/fail basis and therefore is not included in the calculation of the grade point average.*
3. To be recommended to the Quebec Teachers Certification Service for a Quebec permanent teaching diploma, students must satisfy the English language proficiency requirements of the program.

Courses

Art Education:

ARTE 201 ***Art in Early Childhood I*** (3 credits)

Prerequisite: Enrolment in the Specialization in Early Childhood or Major in Child Studies, or written permission of the Department. An introductory study of the art-making process in early childhood. This course is a studio workshop which investigates potential media and teaching approaches appropriate for the young child.

NOTE: Students enrolled in the Major in Art Education – Visual Arts or the Specialization in Art Education – Visual Arts programs may not take this course for credit.

ARTE 202 ***Art in Early Childhood II*** (3 credits)

Prerequisite: ARTE 201. A continuation of ARTE 201.

NOTE: Students enrolled in the Major in Art Education – Visual Arts or the Specialization in Art Education – Visual Arts programs may not take this course for credit.

ARTE 203 ***Arts in Recreation*** (3 credits)

In this workshop/seminar course, students are introduced to various art forms currently used in recreation centres. Intrinsic to the course content is a consideration of the role of the arts in recreation and leisure populations.

NOTE: Students enrolled in the Major in Art Education – Visual Arts or the Specialization in Art Education – Visual Arts programs may not take this course for credit.

ARTE 220 ***Foundations of Art Education*** (3 credits)

A survey of content and contexts of the art education profession. In studio activities, students explore art-making skills and techniques, creative expression, artistic heritage and art in society. This content is related to lesson planning for schools, museums, and community settings. Students are introduced to children's artistic development as well as basic management and safety standards for the art classroom. Practicum experiences will include observation of children's art processes and some teaching.

NOTE: Students who have received credit for ARTE 200 may not take this course for credit.

ARTE 230 ***Practicum: Observation and Analysis of Children's Learning*** (3 credits)

Prerequisite: ARTE 220. This practicum course gives students first-hand experience and knowledge of children's learning as it occurs in the schools. It also provides students with a theoretical framework for observing and analyzing individual and group learning processes in the art classroom. It permits students to develop preliminary skills in assessing and meeting the needs of individual children. Students are introduced to methods for evaluating learning and for critically reflecting on learning and teaching. The practicum experience consists of a placement in a primary school one day a week for a total of 70 hours.

NOTE: Students who have received credit for ARTE 200 may not take this course for credit.

ARTE 320 ***Multidisciplinary Approaches to Art and Teaching*** (3 credits)

Prerequisite: ARTE 230 or written permission of the Department. This course investigates various creative, historical, and critical approaches to art as a basis for developing curriculum content. Students expand their repertoire of skills and techniques for planning and teaching lessons with multiple dimensions. Students also consider the specific requirements of students with special needs and those at different age levels. This course includes a practicum component.

NOTE: Students who have received credit for ARTE 300 may not take this course for credit.

ARTE 330 ***Introduction to Community Art Education*** (3 credits)

Prerequisite: ARTE 320 or written permission of the Department. The course investigates the various issues and concerns related to community art education. Students develop skills in assessing community needs. After observation and studio research, students develop and propose an art education curriculum for a specific community setting or population. This course includes a practicum component.

NOTE: Students who have received credit for ARTE 300 may not take this course for credit.

ARTE 340 ***Art Education for Adolescents and Adults*** (3 credits)

Prerequisite: 24 credits in the Major or Specialization in Art Education – Visual Arts. Students are introduced to theories of adolescent and adult development, and the effect these have on their behaviour and attitudes towards learning and art making. Students learn about different types of group management and support techniques appropriate for adolescent and adult students. The course presents ways to effectively integrate aspects of popular culture into curriculum planning.

ARTE 352 ***Light-Based Media*** (3 credits)

Prerequisite: 24 credits in the Major or Specialization in Art Education – Visual Arts, or permission of the Department. Students develop proficiency in a variety of imaging processes, including traditional and digital photography, that are suitable for school or community art education programs. Students investigate related approaches to teaching and curriculum.

NOTE: Students are expected to have basic computing skills or to have completed INTE 290 before registering for this course. Students who have received credit for ARTE 430 may not take this course for credit.

ARTE 354 *Time-Based Media* (3 credits)

Prerequisite: 24 credits in the Major or Specialization in Art Education – Visual Arts, or permission of the Department. Students develop proficiency in a variety of time-based media, including video and multimedia installations that are suitable for school or community art education programs. Students investigate related approaches to teaching and curriculum.

NOTE: Students are expected to have basic computing skills or to have completed INTE 290 before registering for this course. Students who have received credit for ARTE 430 may not take this course for credit.

ARTE 398 *Special Topics in Art Education* (3 credits)

This course provides an opportunity for the study of specialized aspects of art education. Topics chosen for consideration vary from year to year.

ARTE 420 *Art Education for Elementary School* (3 credits)

Prerequisite: ARTE 330. Students apply theories of development and learning to design appropriate lessons for elementary school practicum settings. The course explores currently available teaching resources such as textbooks, MEES curriculum, and communication technologies. The course also investigates processes and procedures for assessment appropriate to an elementary art classroom.

ARTE 421 *Practicum in the Elementary School* (3 credits)

Prerequisite: ARTE 330. Student teachers observe and assist an elementary school classroom teacher in the development and implementation of an effective art program during a practicum of 140 hours. Student teachers also observe the social and cultural dynamics of the school and initiate positive interactions with their students and professional colleagues.

ARTE 422 *Art Education in the Secondary School I* (3 credits)

Prerequisite: ARTE 434. A lecture/seminar course where students identify themes and concerns that are appropriate to secondary-school students with diverse backgrounds. Students explore the currently available teaching resources such as MEES curriculum and others, textbooks and communication technology.

ARTE 423 *Practicum in the Secondary School I* (3 credits)

Prerequisite: ARTE 420, 434; EDUC 200. Student teachers observe and assist a secondary-school art specialist in the development and implementation of an effective art program during a practicum of 140 hours. Student teachers also observe the social and cultural dynamics of the school and initiate positive interactions with their students and professional colleagues.

ARTE 424 *Art Education in the Secondary School II* (3 credits)

Prerequisite: ARTE 422. The course concentrates on the objectives, goals, and content of the *MEES Secondary School Curriculum Guidelines* in visual arts. Students analyze, reflect on, and evaluate their own practice and philosophy of art learning and teaching within the wider context of school and society.

ARTE 425 *Practicum in the Secondary School II* (9 credits)

Prerequisite: ARTE 423. This course is a 350-hour teaching practicum in a secondary school. Student teachers implement curriculum planning and classroom management that respects ethnic, socio-economic, and cultural diversity, and that successfully integrates students with special needs. Student teachers also apply safe use of art materials and appropriate art learning assessment procedures.

ARTE 432 *Community Art Education: Theory and Practice* (3 credits)

Prerequisite: ARTE 330 or written permission of the Department. Students connect theory and practice by planning and teaching appropriate art events for a particular community setting or population. Students investigate organizational and administrative approaches necessary for successful community art education programming. This course includes a practicum component.

ARTE 434 *Professional Practice for Art Educators* (3 credits)

Prerequisite: ARTE 420 or 432. Students develop, teach, and then evaluate an art program during a practicum in a community setting. Students formulate and express a philosophy of teaching art in a community setting that connects theory, critical thinking, reflective practice and fieldwork experience. Students investigate entrepreneurial skills needed to market community art programs. Students must complete a practicum in a community setting.

ARTE 498 *Special Topics in Inter-Related Media and Technologies* (3 credits)

Prerequisite: 24 credits in the Major or Specialization in Art Education – Visual Arts, or permission of the Department. This course provides an opportunity for the study of specialized aspects of art education. Topics chosen for consideration vary from year to year.

NOTE: Students are expected to have intermediate computing skills in image-manipulation processes, word processing, and Internet searches.

Faculty

Chair

JOHANNE SLOAN, PhD *University of Kent*; Professor

Distinguished Professor Emerita

CATHERINE MACKENZIE, PhD *University of Toronto*

Professors

REBECCA DUCLOS, PhD *University of Manchester*

CYNTHIA HAMMOND, PhD *Concordia University*

KRISTINA HUNEAULT, PhD *University of Manchester*

ALICE MING WAI JIM, PhD *McGill University*; Provost's Distinction

MARTHA LANGFORD, PhD *McGill University*; Provost's Distinction

JOHN POTVIN, PhD *Queen's University*

ANNE WHITELAW, PhD *Concordia University*

Associate Professors

HEATHER IGLOIORTE, PhD *Carleton University*

ELAINE CHEASLEY PATERSON, PhD *Queen's University*

NICOLA TULLIO PEZOLET, PhD *Massachusetts Institute of Technology*

STEVEN STOWELL, PhD *University of Oxford*

Assistant Professor

MICHELLE S. A. MCGEOUGH, PhD *University of New Mexico*

Assistant Professor, Mel Hoppenheim School of Cinema and Department of Art History

MAY CHEW, PhD *Queen's University*

Affiliate Associate Professor

INDRA McEWEN, PhD *McGill University*

Affiliate Assistant Professors

MARIE-ÈVE MARCHAND, PhD *Université de Montréal*

JULIA SKELLY, PhD *Queen's University*

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus

Engineering, Computer Science and Visual Arts Complex, Room: EV 3.809

514-848-2424, ext. 4700

Department Objectives

Art History provides the student scholar and the student artist with an understanding of creative and visual responses to the world in both the past and the present. Art History is a lively, at times even controversial, discipline that encourages the study of art objects with its historical, cultural, political, social, and economic contexts. The Department of Art History offers a full range of courses which allows the student to concentrate on particular art historical concerns or to investigate diverse issues within the discipline. Students can explore the multidisciplinary aspects of art history for graduate study and for future careers in a variety of fields including museums, galleries and libraries, conservation, education, journalism, and research. The Department of Art History offers major and minor programs, providing students with a solid foundation in the critical inquiries involved in a full understanding of the work of art and its context. Also available are the Major in Art History and Studio Art that balances studio work with art historical and theoretical studies, and the Major in Art History and Film Studies which examines art and film from related perspectives.

Programs

Students are responsible for satisfying their particular degree requirements; hence, the following sequence must be read in conjunction with §81.20.

The superscript indicates credit value.

66 BFA Major in Art History

6 ARTH 200^{6*}

3 ARTH 300^{3**}

6 Chosen from Group A

3 Chosen from Group B: ARTH 360³, 361³, or 362³

3 Chosen from Group B: ARTH 363³, 364³, or 365³

3 Chosen from Group B: ARTH 366³, 367³, or 368³

3 Chosen from Group B

6 Chosen from Group C

6 Chosen from Group D

3 Chosen from Group E

***24 Chosen from at least three Groups in Art History

*ARTH 200 should be taken as part of the first 30 credits.

**ARTH 300 should be taken as part of the first 60 credits.

***Students may substitute up to 12 credits from the Faculty of Fine Arts.

60 BFA Major in Art History and Film Studies

6 ARTH 200⁶ to be taken as first six credits in studies in Art History

3 ARTH 300³ to be taken as part of first 60 credits

3 Chosen from ARTH 353³, 354³

6 Chosen from ARTH 366³, 367³, 368³

3 Chosen from ARTH 370³, 371³, 372³, 373³, 374³, 375³, 376³

3 Chosen from ARTH 379³, 381³, 383³, 384³, 385³, 386³, 387³, 388³, 389³, 391³, 392³, 400³

3 Art History electives

*3 FMST 220³

3 Chosen from FMST 222³, 223³, 224³

*6 Chosen from FMST 201³, 202³, 203³

3 Chosen from FMST 214³, 215³, 217³

6 Chosen from FMST 204³, 205³, 315³, 316³, 317³, 319³, 320³

3 Film Studies electives

3 Chosen from 400-level Film Studies electives

3 ARTH 348³/FMST 348³

3 ARTH 448³/FMST 448³

NOTE:

*One of FMST 201, 202 and 203; and FMST 220 should be taken as part of the first 30 credits.

60 BFA Major in Art History and Studio Art

6 ARTH 200^{6*}

3 ARTH 300^{3**}

21 Art History electives

30 Studio Art electives

*ARTH 200 should be taken as part of the first 30 credits.

**ARTH 300 should be taken as part of the first 60 credits.

30 Minor in Art History

6 ARTH 200^{6*}

3 ARTH 300^{3**}

21 Art History electives chosen from at least three of the Groups in Art History, in consultation with an assigned advisor

*ARTH 200 should be taken as part of the first 30 credits.

**ARTH 300 should be taken as part of the first 60 credits.

Art History Co-operative Program*

The Art History co-operative program is available to selected students who are enrolled in the BFA program and are majoring in Art History. The academic content of the co-op program is identical to the regular program with some specific recommendations for courses designed to improve and enhance the student's quality of work performance. While it is hoped that most of the positions will be in the Montreal area, students must be prepared to work in other parts of Canada. Please see §24 for specific details concerning the curriculum.

*Admission to the Art History co-op program has been suspended until further notice.

81.50.1 Admission to Art History, Art History and Studio Art, and Art History and Film Studies Programs

There are no specific courses or procedures required for the Major and Minor in Art History and the Major in Art History and Film Studies other than the successful completion of a two-year pre-university Cegep program (or equivalent).

In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to the Major in Art History and Studio Art. All applicants must submit a *portfolio* of their own work, as well as a *letter of intent*, as part of the admission process.

For more information concerning these additional requirements and submission deadline dates, please visit the following website: concordia.ca/finearts/future-students/applying-undergraduate.

Groups:

A — Media Based Studies

ARTH 262	Aspects of the History of Drawing (3 credits)
ARTH 263	Aspects of the History of the Print (3 credits)
ARTH 264	Aspects of the History of Ceramics (3 credits)
ARTH 265	Aspects of the History of Sculpture (3 credits)
ARTH 266	Aspects of the History of Fibre Art (3 credits)
ARTH 267	Aspects of the History of Photography (3 credits)
ARTH 348	Special Topics in Art and Film (3 credits)
ARTH 349	Studies in the History of the Print (3 credits)
ARTH 350	Studies in the History of Ceramics (3 credits)
ARTH 351	Studies in the History of Sculpture (3 credits)
ARTH 352	Studies in the History of Fibre Art (3 credits)
ARTH 353	Technology and Contemporary Art (3 credits)
ARTH 354	Studies in Interdisciplinarity in the Visual Arts (3 credits)
ARTH 355	Studies in Architecture (3 credits)
ARTH 356	Studies in the Materials and Processes of Art (3 credits)
ARTH 357	Studies in the History of Craft and the Decorative Arts (3 credits)
ARTH 358	Studies in the History of Media Art (3 credits)
ARTH 359	Studies in Contemporary Photographic Art (3 credits)
ARTH 448	Advanced Seminar in Art and Film (3 credits)

B — Period Studies

ARTH 270	Icons of Architectural History (3 credits)
ARTH 360	Studies in Ancient Greek Art and Architecture (3 credits)
ARTH 361	Studies in Ancient Roman Art and Architecture (3 credits)
ARTH 362	Studies in Early Christian and Byzantine Art and Architecture (3 credits)
ARTH 363	Studies in Medieval Art and Architecture (3 credits)
ARTH 364	Studies in Renaissance Art and Architecture (3 credits)
ARTH 365	Studies in 17th- and 18th-Century Art and Architecture (3 credits)
ARTH 366	Studies in 19th-Century Art and Architecture (3 credits)
ARTH 367	Studies in 20th-Century Art and Architecture (3 credits)
ARTH 368	Studies in Contemporary Art and Architecture (3 credits)
ARTH 369	Studies in Middle Eastern Art and Architecture (3 credits)
ARTH 450	Advanced Seminar in the History of Art and Architecture (3 credits)
ARTH 498	Special Topics in the History of Art and Architecture (3 credits)

C — Art in Canada

ARTH 271	Introduction to Canadian Art (3 credits)
ARTH 272	From Realism to Abstraction in Canadian Art (3 credits)
ARTH 370	Studies in Canadian Art (3 credits)
ARTH 371	Studies in Canadian Architecture (3 credits)
ARTH 372	Issues in Contemporary Canadian Architecture (3 credits)
ARTH 373	Issues in Contemporary Canadian Art (3 credits)
ARTH 374	Architecture and Urbanism in Montreal (3 credits)
ARTH 375	Issues in the Montreal Art Milieu (3 credits)
ARTH 376	Topics in Indigenous Art (3 credits)

D — Theory and Criticism

ARTH 200	Perspectives of Art History (6 credits)
ARTH 300	Art Historical Methods (3 credits)
ARTH 379	Postcolonial Theory in Art History (3 credits)
ARTH 380	Histories of Art History (3 credits)
ARTH 381	Feminism and Art History (3 credits)
ARTH 383	Art and Philosophy (3 credits)
ARTH 384	Theories of Representation (3 credits)
ARTH 385	Colour: Theory and Application in the Visual Arts (3 credits)
ARTH 386	Art and the Viewer (3 credits)
ARTH 387	Issues in Art and Criticism (3 credits)
ARTH 389	Issues in Ethnocultural Art Histories (3 credits)
ARTH 400	Advanced Seminar in Art Historical Method (3 credits)

E — Art and Society

ARTH 283	The Life and Work of ... (3 credits)
ARTH 290	Art History and Archaeology (3 credits)
ARTH 298	Special Topics in Genre Studies (3 credits)
ARTH 388	Narration and Art (3 credits)
ARTH 390	Art and the Museum (3 credits)
ARTH 391	Art and Its Changing Contexts (3 credits)
ARTH 392	Gender Issues in Art and Art History (3 credits)
ARTH 396	Art and Culture (3 credits)
ARTH 398	Special Topics in Art and Society (3 credits)

F — Tutored Studies

ARTH 401	Independent Studies in Art History (3 credits)
ARTH 403	Internship (3 credits)

Courses

ARTH 200 **Perspectives of Art History** (6 credits)

A critical overview of the history of art and architecture and a selective examination of canonical figures, movements, periods, and thematic issues.

NOTE: Students in Art History programs should complete this course as part of their first 30 credits.

ARTH 262 **Aspects of the History of Drawing** (3 credits)

A selective examination of drawing as an art form and of its relation to painting and other visual arts.

ARTH 263 **Aspects of the History of the Print** (3 credits)

A selective examination of the development and uses of the print.

ARTH 264 **Aspects of the History of Ceramics** (3 credits)

A selective examination of the development and uses of ceramics.

ARTH 265 **Aspects of the History of Sculpture** (3 credits)

A selective examination of the development and uses of sculpture.

ARTH 266 **Aspects of the History of Fibre Art** (3 credits)

A selective examination of the development of fibre art.

ARTH 267 **Aspects of the History of Photography** (3 credits)

A selective examination of the development and uses of photography.

NOTE: Students who have received credit for PHOT 250 may not take this course for credit.

ARTH 270 **Icons of Architectural History** (3 credits)

A study of key buildings and the vocabulary of architecture.

ARTH 271 **Introduction to Canadian Art** (3 credits)

An introduction to selected subjects and themes in Quebec and Canadian art.

NOTE: This course may not be applied within any program offered in the Faculty of Fine Arts.

NOTE: Students who have received credit for ARTH 370 may not take this course for credit.

ARTH 272 *From Realism to Abstraction in Canadian Art* (3 credits)

An introduction to ideas and techniques associated with the transition from representationalism to abstraction in 19th- and 20th-century Quebec and Canadian art.

NOTE: This course may not be applied within a BFA degree or any Fine Arts specialization, major, or minor program.

ARTH 283 *The Life and Work of ...* (3 credits)

A critical examination of an artist's life and work.

ARTH 290 *Art History and Archaeology* (3 credits)

A selective examination of the relationship between art history and archaeology.

ARTH 298 *Special Topics in Genre Studies* (3 credits)

Topics pertaining to categories of subject matter such as landscape, portraiture, and still life.

ARTH 300 *Art Historical Methods* (3 credits)

Prerequisite: ARTH 200. An in-depth examination of the methods used in art history to analyze and interpret works of art.

NOTE: Students in Art History programs who require this course should complete it as part of their first 60 credits.

ARTH 348 *Special Topics in Art and Film* (3 credits)

Prerequisite: Enrolment in the Major in Art History and Film Studies; ARTH 200; or written permission of the program director.

A comparative examination of some aspects of art history and film studies.

NOTE: Students who have received credit for FMST 348 may not take this course for credit.

ARTH 349 *Studies in the History of the Print* (3 credits)

An examination of selected subjects in the history of the print.

ARTH 350 *Studies in the History of Ceramics* (3 credits)

An examination of selected subjects in the history of ceramics.

ARTH 351 *Studies in the History of Sculpture* (3 credits)

An examination of selected subjects in the history of sculpture.

ARTH 352 *Studies in the History of Fibre Art* (3 credits)

An examination of selected subjects in the history of fibre art.

ARTH 353 *Technology and Contemporary Art* (3 credits)

A selective examination of the relationship between technology and contemporary art.

ARTH 354 *Studies in Interdisciplinarity in the Visual Arts* (3 credits)

A selective examination of historical and contemporary art that utilizes a number of media.

ARTH 355 *Studies in Architecture* (3 credits)

An examination of the role and implications of selected materials and technology in architecture.

ARTH 356 *Studies in the Materials and Processes of Art* (3 credits)

An examination of selected historical and contemporary materials and processes of art.

ARTH 357 *Studies in the History of Craft and the Decorative Arts* (3 credits)

Selected subjects in the history of craft and the decorative arts as forms of material culture.

ARTH 358 *Studies in the History of Media Art* (3 credits)

A selective examination of new media art since the 1990s, including the historical development, thematic content, and conceptual strategies for such practices as video art, projection installation and performance, and experimental film.

ARTH 359 *Studies in Contemporary Photographic Art* (3 credits)

A selective examination of recent photographic art.

NOTE: Students who have received credit for PHOT 250 may not take this course for credit.

ARTH 360 *Studies in Ancient Greek Art and Architecture* (3 credits)

Selected subjects in the art and architectural production of Ancient Greece.

ARTH 361 *Studies in Ancient Roman Art and Architecture* (3 credits)

Selected subjects in the art and architectural production of Ancient Rome.

ARTH 362 *Studies in Early Christian and Byzantine Art and Architecture* (3 credits)

Selected subjects in the art and architectural production of Early Christian and Byzantine cultures.

ARTH 363 *Studies in Medieval Art and Architecture* (3 credits)
Selected subjects in the art and architectural production of the Medieval period.

ARTH 364 *Studies in Renaissance Art and Architecture* (3 credits)
Selected subjects in the art and architectural production of 15th- and 16th-century Europe.

ARTH 365 *Studies in 17th- and 18th-Century Art and Architecture* (3 credits)
Selected subjects in the art and architectural production of the 17th and 18th centuries.

ARTH 366 *Studies in 19th-Century Art and Architecture* (3 credits)
Selected subjects in the art and architectural production of the 19th century.

ARTH 367 *Studies in 20th-Century Art and Architecture* (3 credits)
Selected subjects in the art and architectural production of the 20th century.

ARTH 368 *Studies in Contemporary Art and Architecture* (3 credits)
Selected subjects in contemporary art and architectural production.

ARTH 369 *Studies in Middle Eastern Art and Architecture* (3 credits)
Selected subjects in the art and architectural production of the Middle East.

ARTH 370 *Studies in Canadian Art* (3 credits)
Selected subjects in the art of Canada.

ARTH 371 *Studies in Canadian Architecture* (3 credits)
Selected subjects in the architecture of Canada.

ARTH 372 *Issues in Contemporary Canadian Architecture* (3 credits)
A consideration of specific issues in the practice of recent architecture in Canada.

ARTH 373 *Issues in Contemporary Canadian Art* (3 credits)
A consideration of specific issues in the recent art of Canada.

ARTH 374 *Architecture and Urbanism in Montreal* (3 credits)
The relationship of architecture to issues of urbanism, analyzed through examples from Montreal's past and/or present.

ARTH 375 *Issues in the Montreal Art Milieu* (3 credits)
An analysis of specific issues in the historical and/or contemporary Montreal art community.

ARTH 376 *Topics in Indigenous Art* (3 credits)
A selective examination of the work of Indigenous artists.

ARTH 379 *Postcolonial Theory in Art History* (3 credits)
A critical examination of the key concepts of postcolonial art and theory.
NOTE: It is strongly recommended that students have completed at least six Art History credits before enrolling in this course.

ARTH 380 *Histories of Art History* (3 credits)
The history of art history as a discipline and the concepts of history it uses.
NOTE: It is strongly recommended that students have completed at least six Art History credits before enrolling in this course.

ARTH 381 *Feminism and Art History* (3 credits)
A consideration of feminism in art history.
NOTE: It is strongly recommended that students have completed at least six Art History credits before enrolling in this course.

ARTH 383 *Art and Philosophy* (3 credits)
A consideration of the relationship between philosophy, art theory, and practice.
NOTE: It is strongly recommended that students have completed at least six Art History credits before enrolling in this course.

ARTH 384 *Theories of Representation* (3 credits)
An examination of the different concepts of representation involved in creating, defining, and interpreting an artwork.
NOTE: It is strongly recommended that students have completed at least six Art History credits before enrolling in this course.

ARTH 385 *Colour: Theory and Application in the Visual Arts* (3 credits)
An examination of various theories of colour by artists, philosophers, psychologists, and scientists.
NOTE: It is strongly recommended that students have completed at least six Art History credits before enrolling in this course.

ARTH 386 *Art and the Viewer* (3 credits)

A consideration of the relationships between artwork and audience.

NOTE: It is strongly recommended that students have completed at least six Art History credits before enrolling in this course.

ARTH 387 *Issues in Art and Criticism* (3 credits)

An examination of selected aspects of the relationship between art, aesthetics, and critical writing.

NOTE: It is strongly recommended that students have completed at least six Art History credits before enrolling in this course.

ARTH 388 *Narration and Art* (3 credits)

A critical examination of selected aspects of the relationship between art and its narratives.

NOTE: It is strongly recommended that students have completed at least six Art History credits before enrolling in this course.

ARTH 389 *Issues in Ethnocultural Art Histories* (3 credits)

An analysis of the concepts of ethnic and cultural identity in art and art history.

NOTE: It is strongly recommended that students have completed at least six Art History credits before enrolling in this course.

ARTH 390 *Art and the Museum* (3 credits)

A study of selected issues in museums and related art institutions.

NOTE: It is strongly recommended that students have completed at least six Art History credits before enrolling in this course.

ARTH 391 *Art and Its Changing Contexts* (3 credits)

An investigation of art in its original context and of its changing meanings and uses through time.

NOTE: It is strongly recommended that students have completed at least six Art History credits before enrolling in this course.

ARTH 392 *Gender Issues in Art and Art History* (3 credits)

An examination of gender as a factor in making and interpreting art.

NOTE: It is strongly recommended that students have completed at least six Art History credits before enrolling in this course.

ARTH 396 *Art and Culture* (3 credits)

A critical examination of selected issues in art and its cultural context.

NOTE: It is strongly recommended that students have completed at least six Art History credits before enrolling in this course.

ARTH 398 *Special Topics in Art and Society* (3 credits)

A detailed examination of a selected aspect of art in society.

NOTE: It is strongly recommended that students have completed at least six Art History credits before enrolling in this course.

ARTH 400 *Advanced Seminar in Art Historical Method* (3 credits)

Prerequisite: Third-year* standing in the Major in Art History and written permission of the Department of Art History. A detailed examination of selected aspects of art methodologies.

*Fewer than 33 credits remaining in degree program.

ARTH 401 *Independent Studies in Art History* (3 credits)

Prerequisite: Third-year* standing in the Major in Art History, and written permission of the Department of Art History. Students are required to prepare a research paper under the supervision of a faculty member.

*Fewer than 33 credits remaining in degree program.

ARTH 403 *Internship* (3 credits)

Prerequisite: Third-year* standing in the Major in Art History, and written permission of the Department of Art History. A course in the practice of art history. Students are required to work on specific projects under the supervision of a faculty member. The purpose of the internship is to provide graduating students with the opportunity to take on a project in a professional art milieu so as to complement their academic education.

*Fewer than 33 credits remaining in degree program.

ARTH 448 *Advanced Seminar in Art and Film* (3 credits)

Prerequisite: Enrolment in the Major in Art History and Film Studies; ARTH 348 or FMST 348; or written permission of the Department of Art History. A seminar designed to permit an in-depth course of study on some aspects of art and film history.

NOTE: Students who have received credit for FMST 448 may not take this course for credit.

ARTH 450 *Advanced Seminar in the History of Art and Architecture* (3 credits)

Prerequisite: Third-year* standing in the Major in Art History, and written permission of the Department of Art History. A detailed examination of selected aspects of art and architectural history.

*Fewer than 33 credits remaining in degree program.

ARTH 498 *Special Topics in the History of Art and Architecture* (3 credits)

Prerequisite: 18 credits in Art History, or written permission of the Department of Art History. A course for advanced students which provides for the study of more specialized areas of art.

Faculty

Chair

JEAN-CLAUDE BUSTROS, BFA *Concordia University*; Associate Professor

Distinguished Professor Emeritus

THOMAS WAUGH, PhD *Columbia University*

Distinguished Professor

CATHERINE RUSSELL, PhD *New York University*

Professors

LUCA CAMINATI, PhD *University of Wisconsin-Madison*

DANIEL CROSS, MFA *Concordia University*; Provost's Distinction

ROY CROSS, MFA *Concordia University*

KAY DICKINSON, PhD *University of Sussex*

RICHARD KERR, Dip Media Arts *Sheridan College*

LOUISE LAMARRE, Cert Études Cinématog. *Université Laval*

MARTIN LEFEBVRE, PhD *Université du Québec à Montréal*

JOHN LOCKE, MA *New York University*

ERIN MANNING, PhD *University of Hawaii*; Provost's Distinction

ROSANNA MAULE, PhD *University of Iowa*

MARIELLE NITOSLAWSKA, PhD *Polish National Film School*

PETER RIST, PhD *New York University*

MASHA SALAZKINA, PhD *Yale University*

HAIDEE WASSON, PhD *McGill University*; Provost's Distinction

Associate Professors

LUIGI ALLEMANO, MAA *Emily Carr University of Art and Design*

SHIRA AVNI, MFA *School of the Art Institute of Chicago*

GUYLAIN DIONNE, PhD *Université de Strasbourg*

JOSHUA NEVES, PhD *University of California, Santa Barbara*

CILIA SAWADOGO, BA *Concordia University*

MARC STEINBERG, PhD *Brown University*

MICHAEL YAROSHEVSKY, MFA *Concordia University*, MA *University of Toronto*

Assistant Professor

ISHITA TIWARY, PhD *Jawaharlal Nehru University*

Assistant Professor, Mel Hoppenheim School of Cinema and Department of Art History

MAY CHEW, PhD *Queen's University*

Senior Lecturer

LUC OTTER, MA *École nationale supérieure des arts visuels de La Cambre*

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus

Faubourg Tower, Room: FB 319

514-848-2424, ext. 4666

Department Objectives

The School investigates and develops cinema as a means of artistic expression. Its programs aim to graduate filmmakers, film animators, and scholars who have a rich appreciation of the artistic and cultural potential of the medium, and also of its history and traditions. Students are exposed to the possibilities of both digital and analog technologies, and the School's scholarly and artistic community celebrates its celluloid heritage and participates in the construction of the cinema of the future.

School programs, always evolving, embrace diversity, both in artistic formats and in the cultural values espoused through the study, creation, and dissemination of the cinema. The work of teachers, students, and artists engages with other artistic disciplines, and is grounded on academic rigour, teaching excellence, creative vision, and specific and high standards for the recruitment and admission of students, both undergraduate and graduate, who fit the School's mission. Its mission is inseparable from its commitment to the relevance and responsibility of its activities to the community, understood as being rooted here in Montreal and Quebec, throughout Canada, and internationally.

All programs offer core courses, elective courses, lectures by visiting specialists, independent studies, and professional internships, assuring continuous contact with working professionals in the arts community. Research and creative practice by faculty are also an essential part of the School's mission.

The BFA in Film Studies prepares graduates for professions as critics, arts administrators, educators, archivists, and curators within the regional, national, and international communities.

The BFA Film Animation and the BFA Film Production are studio programs that address practical and creative aspects of filmmaking, with the goal of providing a solid foundation for research and discovery to facilitate students' articulation of their unique artistic personality. Film Animation programs teach the full process of frame-by-frame filmmaking, its theory, and its practice. Film Production programs instill a thorough knowledge of the mechanics involved in producing motion pictures and help students develop personal perspectives on the aesthetics of creation. Students make their own films.

Programs

Students are responsible for fulfilling their particular degree requirements; hence, the following sequences must be read in conjunction with §81.20.

The superscript indicates credit value.

66 BFA Specialization in Film Production

NOTE: It is strongly recommended that students in the Specialization in Film Production have, or acquire, a knowledge of French.

- *3 Chosen from FMST 201³, 202³, 203³
- *3 FMST 220³
- 3 Chosen from FMST 222³, 223³, 224³
- 18 FMPR 231⁶, 332⁶, 432⁶
- 12 FMPR 239³, 336³, 338³, 340³
- 9 Chosen from FMPR 335³, 341³, 343³, 350³, 398³, 435³, 438³, 439³, 440³, 441³, 442³, 444³, 450³, 498³
- 6 Film Studies electives** (excluding FMST 200)
- 12 Cinema electives*** **** or credits outside of Cinema selected in consultation with the head of Film Production

66 BFA Specialization in Film Studies

NOTE: It is strongly recommended that students in the Specialization in Film Studies have, or acquire, a knowledge of French.

- *3 FMST 220³
- 3 Chosen from FMST 222³, 223³, 224³
- 9 FMST 201³, 202³, 203³
- 6 FMST 204³, 205³
- 3 Chosen from FMST 214³, 215³, 217³
- 6 Chosen from FMST 315³, 316³, 317³, 319³, 320³
- 3 Chosen from FMST 418³, 419³***
- 6 FMPR 231⁶ or Cinema electives**** approved by the head of Film Studies
- 3 FMST 450³
- 21 Film Studies electives** (excluding FMST 200); FMPR 341³, 441³
- 3 Film Studies seminar credits chosen in consultation with an advisor

54 BFA Major in Film Production

- *3 Chosen from FMST 201³, 202³, 203³
- *3 FMST 220³
- 3 Chosen from FMST 222³, 223³, 224³
- 21 FMPR 231⁶, 239³, 332⁶, 338³, 340³
- 3 Film Studies elective(s)** (excluding FMST 200)
- 21 Cinema electives*** ****

60 BFA Major in Film Animation

- 15 FMAN 203³, 204³, 225³, 255³, 256³
- 6 FMST 218³, 220³
- 12 FMAN 307³, 308³, 315³, 340³
- 9 Film Animation electives
- 9 FMAN 402⁹
- 3 Fine Arts electives (exclusive of Cinema)
- 3 Cinema electives
- 3 Film Studies electives

48 BFA Major in Film Studies
18 FMST 201³, 202³, 203³, 204³, 205³, 220³
3 Chosen from FMST 214³, 215³, 217³
3 Chosen from FMST 222³, 223³, 224³
3 Chosen from FMST 315³, 316³, 317³, 319³, 320³
15 Film Studies electives (excluding FMST 200)*
6 Cinema electives** ****

60 BFA Major in Art History and Film Studies
*3 FMST 220³
3 Chosen from FMST 222³, 223³, 224³
*6 Chosen from FMST 201³, 202³, 203³
3 Chosen from FMST 214³, 215³, 217³
6 Chosen from FMST 204³, 205³, 315³, 316³, 317³, 319³, 320³
3 Film Studies electives
3 Chosen from 400-level Film Studies electives
6 ARTH 200⁶ to be taken as first six credits in studies in Art History
3 ARTH 300³ to be taken as part of first 60 credits
3 Chosen from ARTH 353³, 354³
6 Chosen from ARTH 366³, 367³, 368³
3 Chosen from ARTH 370³, 371³, 372³, 373³, 374³, 375³, 376³
3 Chosen from ARTH 379³, 381³, 383³, 384³, 385³, 386³, 387³, 388³, 389³, 391³, 392³, 400³
3 Art History electives
3 FMST 348³/ARTH 348³
3 FMST 448³/ARTH 448³

This is a program for students who want to examine art and film from a variety of social, cultural, political, and critical perspectives.

30 Minor in Cinema
*3 FMST 220³
3 Chosen from FMST 222³, 223³, 224³
6 Chosen from FMST 201³, 202³, 203³
18 Film Studies electives** (With the written permission of the School, introductory-level Film Animation or Film Production courses, selected in consultation with the School, may be substituted.)

30 Minor in Film Animation
15 FMAN 203³, 204³, 225³, 255³, 256³
6 FMST 218³, 220³
3 FMST electives
6 Cinema electives

24 Minor in Film Studies
12 Chosen from FMST 200⁶, 201³, 202³, 203³, 220³
12 Film Studies electives**

Students in Communication Studies Department degree programs must have written permission of their Department to enter this program.

NOTES:

*One of FMST 201, 202 and 203; and FMST 220 should be taken as part of the first 30 credits.

**Up to 12 credits chosen from the Communication Studies courses listed in §81.60.3 may be applied as Film Studies or Cinema electives for degree purposes in the Major and Specialization in Film Production, and the Major and Specialization in Film Studies. Up to six credits chosen from the Communication Studies courses listed in §81.60.3 may be applied as Film Studies or Cinema electives for degree purposes in the Minor in Cinema and the Minor in Film Studies.

***Communication Studies 301 may be substituted for three credits in Film Studies and must be considered as Film Studies credits for degree purposes.

****VDEO 350 may be applied as a Cinema elective for degree purposes in the Specialization in Film Production, the Specialization in Film Studies, and all Cinema Major programs.

Minor in Interdisciplinary Studies in Sexuality
See §81.30

81.60.1 Admission to Cinema Programs

For programs in Film Animation and Film Production, the Mel Hoppenheim School of Cinema has distinct admission procedures in addition to the normal admission process of Concordia University. In order to allow sufficient preparatory time, applicants are strongly urged to visit the School's website at concordia.ca/finearts/cinema to obtain important information regarding portfolio submission procedures and deadline dates. There are no additional requirements for admission to Film Studies.

NOTE: The Specialization in Film Production is offered at the third-year level. Students taking FMPR 332, in the Major in Film Production, may apply for transfer to the Specialization in Film Production by March 1.

Courses

Film Studies:

NOTE: Courses may occasionally be offered in French.

FMST 200 *Introduction to Film Studies* (6 credits)

A survey course acquainting the student with the art of the film and the basic methods of analysis. The technical and critical terminology of film studies is discussed. Popular literature on film, such as reviews, is analyzed and the more specialized film literature is introduced. Directors whose films are usually viewed include Bergman, Eisenstein, Fellini, Ford, Hitchcock, Kurosawa, Lubitsch, Keaton, and Welles.

NOTE: Students in the Major or Specialization in Film Studies may not take this course for credit.

FMST 201 *Film History I* (3 credits)

An introduction to world cinema history up until 1945, studied in relation to its cultural, social, and political contexts. Special emphasis is placed on film historical methodology, focusing on approaches based on genre, auteur, national cinemas, social history, particular cinematic modes, or other frameworks. Weekly screenings.

NOTE: Students in Film Studies programs should complete FMST 201, 202 and/or 203, and 220 as part of their first 30 credits. Students in Film Production programs and Major in Art History and Film Studies should complete FMST 201, 202 and/or 203, and 220 as part of their first 30 credits.

NOTE: Students who have received credit for FMST 211 may not take this course for credit.

FMST 202 *Film History II* (3 credits)

An introduction to world cinema history from 1945 to 1980, studied in relation to its cultural, social, and political contexts. Special emphasis is placed on film historical methodology, focusing on approaches based on genre, auteur, national cinemas, social history, particular cinematic modes, or other frameworks. Weekly screenings.

NOTE: Students in Film Studies programs should complete FMST 201, 202 and/or 203, and 220 as part of their first 60 credits. Students in Film Production programs and Major in Art History and Film Studies should complete FMST 201, 202 and/or 203, and 220 as part of their first 30 credits.

NOTE: Students who have received credit for FMST 322 may not take this course for credit.

FMST 203 *Film History III* (3 credits)

An introduction to world cinema history from 1980 to the present day, studied in relation to its cultural, social, and political contexts. Special emphasis is placed on film historical methodology, focusing on approaches based on genre, auteur, national cinemas, social history, particular cinematic modes, or other frameworks. Weekly screenings.

NOTE: Students in Film Studies programs should complete FMST 201, 202 and/or 203, and 220 as part of their first 60 credits. Students in Film Production programs and Major in Art History and Film Studies should complete FMST 201, 202 and/or 203, and 220 as part of their first 30 credits.

NOTE: Students who have received credit for FMST 322 may not take this course for credit.

FMST 204 *Approaches to Film Studies I* (3 credits)

Prerequisite: Enrolment in the Major, Minor or Specialization in Film Studies. This course focuses on developing discipline-specific skills for the study of cinema and the moving image. It supplements the formal and aesthetic approaches to film analysis with broader questions about seeing, interpreting and understanding cinema. By completing a broad range of assignments designed to test various academic approaches to film analysis, students become acquainted with different methodologies that are currently in use within the discipline.

NOTE: Students in the Major in Film Studies program should complete this course as part of their first 30 credits.

NOTE: Students who have received credit for FMST 216 may not take this course for credit.

FMST 205 *Approaches to Film Studies II* (3 credits)

Prerequisite: Enrolment in the Major, Minor or Specialization in Film Studies; FMST 204. This course focuses on developing discipline-specific skills for the study of cinema and the moving image. It builds on and extends the work undertaken in FMST 204. By completing a broad range of assignments designed to test various academic approaches to the study of film, students become acquainted with different methodologies that are currently in use within the discipline.

NOTE: Students in the Major in Film Studies program should complete this course as part of their first 30 credits.

FMST 213 *Introduction to Film Genres* (3 credits)

This course introduces students to the concept of genre through the case study of genre films. By exploring genre conventions and aesthetic features in historical context, the course addresses how genres are established, and how they develop, evolve, and travel. It also explores their relation to society, industry and art cinema.

FMST 214 *Canadian Cinema* (3 credits)

A survey of Canadian film from the earliest surviving works to the present. Topics include fiction, documentary, animation, and experimental film, as well as the role of the National Film Board. The course includes discussions of national and transnational cinema within the Canadian context. Weekly screenings.

FMST 215 *Le cinéma québécois* (3 crédits)

Tour d'horizon du cinéma québécois mettant l'accent sur des œuvres contemporaines. Les films sont examinés en fonction de leur valeur culturelle et politique. On y traite également de la structure de l'industrie du cinéma au Québec et du rôle joué, entre autres, par l'Office national du film. Visionnements hebdomadaires.

NOTE: Ce cours peut, à l'occasion, être offert en anglais. / Course may occasionally be taught in English.

FMST 217 *First Peoples' Cinema* (3 credits)

An examination of representation by and of Indigenous peoples in film and video. The emphasis is on Turtle Island and other parts of the Americas, but important works from other continents may be included. Films and videos, both mainstream and experimental, are discussed in the context of post-colonial theory, socio-cultural history, and contemporary aesthetic issues. Weekly screenings.

FMST 218 *History of Animation Film* (3 credits)

Prerequisite: Enrolment in the Mel Hoppenheim School of Cinema or written permission of the School of Cinema. A survey of animated film from the first decade of the 20th century to the present. Styles of animation viewed and discussed include abstract experimental film of the 1920s, Disney Studio films and computer animation. The contribution of the National Film Board of Canada and particularly that of Norman McLaren is considered. Weekly screenings.

NOTE: Students who have received credit for FMST 323 may not take this course for credit.

FMST 220 *Film Analysis* (3 credits)

An introduction to the formal components of film. Close attention is paid to how to understand elements such as narrative, mise-en-scène, cinematography, editing and sound. Weekly screenings.

NOTE: Students in Cinema programs who require FMST 220 should complete the course as part of their first 30 credits.

FMST 222 *Topics in Film Aesthetics* (3 credits)

Prerequisite: FMST 220. A focused study of a particular dimension of film aesthetics with attention to the social, cultural and historical questions of film art. Topics may include a digital or non-Western concentration, attention to a particular historical period, or the philosophical study of aesthetics. Weekly screenings.

FMST 223 *Montage Aesthetic* (3 credits)

Prerequisite: FMST 220. An intensive study of montage as an element of film style. This course includes weekly screenings that cover a wide range of film and media practice, from early cinema to contemporary media practice.

NOTE: Students who have received credit for FMST 311 may not take this course for credit.

FMST 224 *Moving Camera Aesthetic* (3 credits)

Prerequisite: FMST 220. An intensive study of camera movement as an element of film and moving image style. Consideration is given to relations between various techniques (deep and shallow focus, long and short takes) and the dynamic movement of cameras by human, mechanical or other means. Classic films and works in video and digital media may be examined. Weekly screenings.

NOTE: Students who have received credit for FMST 312 may not take this course for credit.

FMST 313 *Film Comedy I* (3 credits)

Prerequisite: Second-year standing.* An introduction to film comedy in the silent and sound eras. The visual and verbal sources of comedy are analyzed through the study of films ranging from Mack Sennett and Buster Keaton to Woody Allen and Jacques Tati. Weekly screenings.

*66 or fewer credits remaining in degree program.

FMST 315 *Introduction to Film Theory* (3 credits)

Prerequisite: Two of FMST 201, 202 or 203; FMST 204, 220; or permission of the School of Cinema. This course familiarizes students with some of the major developments in film theory and further develops their critical skills in approaching complex theoretical texts and concepts. Students examine a variety of theoretical writings concerned with aesthetic, social and psychological aspects of the cinema, including questions of spectatorship, ideology, gender, technology, and authorship.

FMST 316 *Film and Moving Image Cultures* (3 credits)

Prerequisite: Two of FMST 201, 202 or 203; FMST 204, 220; or permission of the School of Cinema. This course studies extra-textual elements of cinema, such as production histories, stardom, film education, and, more generally, issues in the dissemination of film cultures around the world including screens, apparatuses, cinephilia, fandom and festivals.

FMST 317 *Transnational Approaches to Cinema* (3 credits)

Prerequisite: Two of FMST 201, 202 or 203; FMST 204, 220; or permission of the School of Cinema. This course introduces students to geo-political approaches to cinema, which question the primacy of the national as a determining category of analysis. This course emphasizes the transnational flow of global media production and circulation, and offers comparative perspectives on film movements and practices.

FMST 318 *Experimental Film* (3 credits)

Prerequisite: Second-year standing.* An examination of experimental film emphasizing developments from the late 1940s to the present. The New American Cinema is considered in relation to other North American and European experimental cinemas, and examples of the historical antecedents of recent experimental films are viewed and discussed. Weekly screenings.

*66 or fewer credits remaining in degree program.

FMST 319 *The Moving Image and Society* (3 credits)

Prerequisite: Two of FMST 201, 202 or 203; FMST 204, 220; or permission of the School of Cinema. This course explores the ways in which cinema and moving images shape ideologies of class, gender and race. Through a selection of key theoretical texts from cultural studies and related scholarly traditions, this course investigates the centrality of visual experience to everyday life. Through a selection of screenings and readings, students learn how the production and consumption of visual cultures intersect with issues of identity and historical consciousness. The aim of this course is to enable students to analyze different ideological aspects of film and the moving image.

FMST 320 *Digital Media and Animation* (3 credits)

Prerequisite: Two of FMST 201, 202 or 203; FMST 204, 220; or permission of the School of Cinema. This course introduces students to the proliferating forms of contemporary animation, and to the critical debates around digital media in which animation plays a central role. The course examines new forms of animation, including *anime*, web-based animation and animated documentary along with big-budget special-effects films. Students are introduced to recent developments within film studies, animation studies, new media theory, game studies, gender studies, software studies, and theories of consumer culture.

NOTE: Students who have received credit for this topic under a FMST 398 number may not take this course for credit.

FMST 325 *Studies in Film Acting and Performance* (3 credits)

Prerequisite: Two of FMST 201, 202 or 203; FMST 220; or permission of the School of Cinema. This course offers an introduction to the critical study and analysis of film acting and performance. It includes a survey of acting styles and practices. Performance styles are studied in relation to authorship, the film industry, stardom, scriptwriting, film technique, film genre, documentary and the other performing arts. The course helps students learn the multidimensional subject of acting for the screen.

FMST 326 *Approaches to World Cinema* (3 credits)

Prerequisite: Second-year standing.* The course investigates films, film movements, filmmakers and film industries worldwide focusing on transnationalism as well as specific geopolitical cultural contexts. Among the possible topics: contemporary global art cinema and festivals, global and regional economies of film and media, film movements and genres, transcultural and diasporic cinemas, Third Cinema, postcoloniality and eurocentrism, international co-productions, practices of dubbing and subtitling.

*66 or fewer credits remaining in degree program.

FMST 328 *Non-fiction Film Since 1956* (3 credits)

Prerequisite: Second-year standing.* A cross-cultural survey of contemporary developments in the documentary film. The course begins with the precursors of *cinéma-vérité* in North America and Europe during the 1950s, and extends through the most recent applications of *cinéma-vérité* in the emerging cinemas of the Third World. Emphasis is placed on both the artistic achievement and the theoretical, cultural, and political context of the non-fiction film during this period of technological and aesthetic transition. Weekly screenings.

*66 or fewer credits remaining in degree program.

FMST 329 *Women and Film* (3 credits)

Prerequisite: Two of FMST 201, 202 or 203; FMST 220; or permission of the School of Cinema. This course examines films made by women, film criticism written by women, and the portrayal of women in films. These topics are considered within the context of film history and with an emphasis on their relation to ideas in contemporary feminist theory. Weekly screenings.

FMST 330 *Film Sound* (3 credits)

Prerequisite: Two of FMST 201, 202 or 203; FMST 220; or permission of the School of Cinema. This course provides an introduction to the concepts and language necessary to think and write cogently about the importance of sound in the cinema. It covers issues of technology, aesthetics and sound design in relation to the history of cinema as an audiovisual medium. Weekly readings and screenings offer students key analytical tools to better understand the soundscapes and soundtracks of a variety of film practices.

FMST 331 *Film Directors* (3 credits)

Prerequisite: Two of FMST 201, 202 or 203; FMST 220; or permission of the School of Cinema. This course provides a concentrated study of the work of selected major directors of narrative, documentary and experimental cinema. Concepts and theories of authorship are incorporated into close analysis of selected bodies of work. The films are considered in terms of thematic and stylistic consistency and variation as well as biographical, social, and political factors.

NOTE: Students who have received credit for FMST 321 may not take this course for credit.

FMST 332 *Issues in Independent Cinema* (3 credits)

Prerequisite: Two of FMST 201, 202 or 203; FMST 220; or permission of the School of Cinema. This course involves intensive study of selected tendencies in cinema produced outside the mainstream of the film industry. Topics may include documentary, video art, experimental or narrative film, or particular convergences of these modes of film practice. Topics will vary according to the instructor's specialization.

FMST 335 *Aspects of National Cinemas* (3 credits)

Prerequisite: Second-year standing.* An examination of films as reflections of national cultures. Films by a range of directors representing one or several national groupings such as Japan, Brazil, Eastern Europe, Great Britain, or contemporary West Germany are discussed in the context of their aesthetic, cultural, and political aspirations. Weekly screenings.

*66 or fewer credits remaining in degree program.

FMST 336 *Documentary Film of the Classical Period* (3 credits)

Prerequisite: Second-year standing. This course is a cross-cultural survey of the history of the documentary film from its origins in early cinema to the emergence of direct cinema in the postwar period. Emphasis is placed on both the artistic achievement and the theoretical, cultural, and political context of nonfiction film during the first half of the 20th century. Directors studied may include Flaherty, Grierson, Lorentz, Ivens, Riefenstahl, Shub, Vertov, and Vigo.

*66 or fewer credits remaining in degree program.

FMST 337 *Topics in American Cinema* (3 credits)

Prerequisite: Second-year standing.* A lecture or seminar course which provides an opportunity for the study of limited and more specialized aspects of U.S. cinema. Topics may include individual genres, directors, production studios, historical periods, or aspects of independent cinema. Topics vary from year to year according to the instructor's field of specialization.

*66 or fewer credits remaining in degree program.

FMST 348 *Special Topics in Art and Film* (3 credits)

Prerequisite: Enrolment in the Major in Art History and Film Studies; ARTH 200; one of FMST 201, 202 or 203; FMST 220; or permission of the School of Cinema. This course offers a comparative examination of some aspects of film studies and art history.

NOTE: Students who have received credit for ARTH 348 may not take this course for credit.

FMST 350 *Studies in Film Genres* (3 credits)

Prerequisite: Two of FMST 201, 202 or 203; FMST 220; or permission of the School of Cinema. This course involves intensive analysis of one or two film genres, which assumes previous experience in film-genre studies. The genre is discussed in terms of its structural characteristics and the ways in which it is a product of specific social situations. Weekly screenings.

FMST 391 *Sexual Representation in Cinema* (3 credits)

Prerequisite: Second-year standing* or six credits in the Major or Minor in Interdisciplinary Studies in Sexuality. An investigation of cinematic sexual imagery as art, communication and socio-cultural phenomenon. Weekly screenings of films and videos, representing fiction, experimental and documentary genres, as well as different historical and cultural contexts, are related to theoretical readings, both classical and contemporary, by authors from Freud and the Surrealists to Foucault and recent feminist and queer theorists. Contemporary issues such as pornography, autobiography, and the HIV epidemic are confronted. Learning is interdisciplinary, interactive and group-oriented.

*66 or fewer credits remaining in degree program.

NOTE: Students who have received credit for this topic under a FMST 498 number may not take this course for credit.

FMST 392 *Queer Cinema I* (3 credits)

An interdisciplinary, cross-cultural survey of queer cinema and video. Selected phases in the historical trajectory of LGBTQ film are highlighted, both underground and mainstream, including studies of representative major artists from Jean Cocteau and Dorothy Arzner to Patricia Rozema and Derek Jarman. Problems in the depiction of sexual minorities are analyzed, and a selection of the principal aesthetic, theoretical and socio-political issues raised by queer theory and cultural production is introduced.

FMST 393 *Queer Cinema II* (3 credits)

Prerequisite: FMST 392. An extension of FMST 392. An in-depth focus on selected historical, aesthetic, and theoretical issues, which vary from year to year according to the expertise of faculty.

FMST 398 *Special Topics in Film Studies* (3 credits)

Prerequisite: Second-year standing.* A course which provides an opportunity for the study of limited and more specialized aspects of film studies.

*66 or fewer credits remaining in degree program.

NOTE: Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

FMST 399 *Special Topics in Film Studies* (6 credits)

Prerequisite: Second-year standing.* A course which provides an opportunity for the study of specialized aspects of film studies outside the scope of existing courses.

*66 or fewer credits remaining in degree program.

NOTE: Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

FMST 409 *Seminar in Women and Film* (3 credits)

Prerequisite: Written permission of the School of Cinema. An advanced course in the study of films made by women, as well as of the representation of women in films. The topics selected for study may vary from year to year and are considered within the context of film history, contemporary feminist philosophy, and feminist film theory. Students are expected to conduct independent research for class presentation.

FMST 410 *Seminar in Gender, Sexuality and Media* (3 credits)

Prerequisite: Written permission of the School of Cinema. An advanced interdisciplinary course in gender, identity and politics in cinema and media. Topics may vary from year to year, drawing on approaches from feminist, masculinity, queer, sexuality and gender/transgender studies. Sexuality is approached as an art, a form of communication and socio-cultural phenomenon, focusing on cinema and other moving image and sound-based media. Regular screenings accompany theoretical, historical and critical readings.

FMST 411 Seminar in Screen Cultures (3 credits)

Prerequisite: Written permission of the School of Cinema. An advanced, interdisciplinary approach to the study of cinema and media cultures which draws on historical and theoretical approaches to old and new screen-based forms. Topics include issues of exhibition, distribution, industry, art institutions and other socio-cultural and historical issues related to moving image cultures. Regular screenings accompany theoretical, historical and critical readings.

FMST 412 Seminar in Geographies of Cinema (3 credits)

Prerequisite: Written permission of the School of Cinema. An advanced study of cinema and the ways in which space, place and geopolitical borders shape aesthetic, industrial, cultural and political dynamics of moving images and sound. This course may include national, regional, local, urban, rural and international and transnational approaches. Regular screenings accompany theoretical, historical and critical readings.

FMST 414 Seminar in Film Directors (3 credits)

Prerequisite: 18 credits in Film Studies and written permission of the School of Cinema. A seminar for advanced students which provides for more concentrated study of the work of specific film directors. The director or directors whose films are chosen for study varies from year to year according to the instructor's field of specialization.

FMST 416 Seminar in Film History (3 credits)

Prerequisite: 18 credits in Film Studies and written permission of the School of Cinema. A seminar for advanced students which provides for the study of limited and more specialized areas of film history. The areas chosen for study vary from year to year according to the instructor's field of specialization.

FMST 418 Seminar in Canadian Cinema (3 credits)

Prerequisite: FMST 214 or COMS 316, and written permission of the School of Cinema. A seminar in which selected aspects of Canadian film are examined and discussed. The areas chosen for study vary from year to year according to the instructor's field of specialization.

FMST 419 Séminaire sur le cinéma québécois (3 crédits)

Préalable: FMST 215, ainsi que permission écrite de l'École de cinéma. Un séminaire dans lequel des aspects sélectifs du cinéma québécois sont analysés et discutés. Les sujets d'étude choisis varient d'année en année selon la spécialisation de l'instructeur.

NOTE: Ce cours peut, à l'occasion, être offert en anglais. / This course may be occasionally offered in English.

FMST 420 Seminar in Critical Media Practices (3 credits)

Prerequisite: Written permission of the School of Cinema. This course brings together critical readings and practices across media forms with an emphasis on blending theory and creative work. Topics may include curating practices, video essays, collaborative media practices and web journalism.

FMST 422 Seminar in Film Theory and Criticism (3 credits)

Prerequisite: Written permission of the School of Cinema. This seminar provides an in-depth and focused engagement with discourses on cinema from different cultural traditions and theoretical perspectives. Specific topics may vary from year to year and will be placed in dialogue with a range of film and media materials.

FMST 423 Seminar in Stylistic and Formal Analysis (3 credits)

Prerequisite: Written permission of the School of Cinema. An intensive course in the analysis of film style. Films are examined using an analytical projector in order to discover their formal and thematic structures. The contribution of cinematographers, editors, scriptwriters, directors, and performers to the development of a style are discussed. Weekly screenings.

FMST 424 Seminar in Film Narrative (3 credits)

Prerequisite: Written permission of the School of Cinema. An examination of conventions of film narrative from a theoretical and historical point of view. Innovations in narrative structure are discussed and consideration is given to the origin, development, and transformation of narrative traditions in their cultural and aesthetic context.

FMST 426 Professional Internship I (3 credits)

Prerequisite: Second-year standing* in the Major in Film Studies or the Specialization in Film Studies; written permission of the School of Cinema. A Film Studies student who has been commissioned to work in such areas as film research, archival work, editing film publications, or writing film criticism, may seek permission to apply three credits towards the Film Studies degree program. A written proposal describing the project must be submitted prior to the work taking place in order to determine the appropriateness of the level and scope of the project. The School of Cinema must be satisfied that the work will be done under the joint supervision of a qualified professional and a full-time Cinema faculty member.

*66 or fewer credits remaining in degree program.

FMST 427 Professional Internship II (3 credits)

Prerequisite: Second-year standing* in the Major in Film Studies or the Specialization in Film Studies; written permission of the School of Cinema. A student repeating FMST 426 registers for credit under FMST 427.

*66 or fewer credits remaining in degree program.

FMST 428 *Independent Study I* (3 credits)

Prerequisite: 24 credits completed in Film Studies; written permission of the Department. A minimum cumulative GPA of 3.5 is required. This course offers a limited number of students the opportunity to pursue advanced research under the supervision of a full-time Cinema faculty member. A written agreement between the student and the supervisor shall clearly state the nature of the student's research, the scope of the project, and the work schedule. The study workload should be equivalent to a three-credit course in the program. Independent study may not duplicate curriculum offerings.

FMST 429 *Independent Study II* (3 credits)

Prerequisite: FMST 428; 24 credits completed in Film Studies; written permission of the Department. A minimum cumulative GPA of 3.5 is required. This course offers a limited number of students the opportunity to pursue advanced research under the supervision of a full-time Cinema faculty member. A written agreement between the student and the supervisor shall clearly state the nature of the student's research, the scope of the project, and the work schedule. The study workload should be equivalent to a three-credit course in the program. Independent study may not duplicate curriculum offerings.

FMST 448 *Advanced Seminar in Art and Film* (3 credits)

Prerequisite: Enrolment in the Major in Art History and Film Studies; ARTH 348 or FMST 348; or written permission of the program director. A seminar designed to permit an in-depth course of study on some aspects of art and film history.

NOTE: Students who have received credit for ARTH 448 may not take this course for credit.

FMST 450 *Film Studies Specialization Seminar* (3 credits)

Prerequisite: Second-year standing* in the Specialization in Film Studies; written permission of the School of Cinema. This intensive seminar includes workshops in research methodology, in advanced study and career planning, and in the practice of criticism, publication, preservation, and programming. The relation of film studies to filmmaking practice, the role of changing technology, and the current cultural context of the discipline are discussed by visiting experts from both within the University and the community at large. The course brings together all students in the Specialization in Film Studies.

*66 or fewer credits remaining in degree program.

FMST 498 *Special Topics in Film Studies* (3 credits)

Prerequisite: Written permission of the School of Cinema. A lecture or seminar course for advanced students which provides an opportunity for the study of limited and more specialized aspects of film studies.

Film Animation:

NOTE: A student may register for only one course in which films are produced as a course requirement during each academic session. See §81.60.2

FMAN 203 *Introduction to Animation I* (3 credits)

Prerequisite: Enrolment in a Film Animation program; FMAN 255 concurrently; or written permission of the School of Cinema. A studio course introducing the study and practice of film animation. Students are taught the fundamentals of motion analysis and frame-by-frame filmmaking, basic character animation, camera layouts, exposure sheets and character design.

NOTE: Students who have received credit for FMAN 202 may not take this course for credit.

NOTE: Students are required to bear the cost of all necessary equipment, software and production materials for the course as described in the syllabus.

FMAN 204 *Introduction to Animation II* (3 credits)

Prerequisite: Enrolment in a Film Animation program; FMAN 203; FMAN 256 previously or concurrently; or written permission of the School of Cinema. A continuation on a more advanced level of FMAN 203. Students produce their first animated film project.

NOTE: Students who have received credit for FMAN 202 may not take this course for credit.

NOTE: Students are required to bear the cost of all necessary equipment, software and production materials for the course as described in the syllabus.

FMAN 225 *Analytical Drawing and Design for Animation* (3 credits)

Prerequisite: Enrolment in a Film Animation program; or written permission of the School of Cinema. An analytical approach to various elements supporting the concept of representation, including character design, virtual space and perception. The concept of drawing is expanded beyond observational drawing.

NOTE: Students who have received credit for FMAN 224 may not take this course for credit.

NOTE: Students are required to bear the cost of all necessary equipment, software and production materials for the course as described in the syllabus.

FMAN 255 *Technical Aspects for Animation I* (3 credits)

Prerequisite: Enrolment in a Film Animation program; FMAN 203 concurrently; or written permission of the School of Cinema. A studio course introducing students to the use of software and equipment in the production of frame-by-frame films. Students learn the technical aspects of animation software and analog animation production equipment.

NOTE: Students who have received credit for FMAN 254 may not take this course for credit.

NOTE: Students are required to bear the cost of all necessary equipment, software and production materials for the course as described in the syllabus.

FMAN 256 *Technical Aspects for Animation II* (3 credits)

Prerequisite: Enrolment in a Film Animation program; FMAN 203, 255; FMAN 204 previously or concurrently; or written permission of the School of Cinema. A continuation on a more advanced level of FMAN 255. Students further explore the use of software and equipment for the production of frame-by-frame film.

NOTE: Students who have received credit for FMAN 254 may not take this course for credit.

NOTE: Students are required to bear the cost of all necessary equipment, software and production materials for the course as described in the syllabus.

FMAN 300 *Under-Camera Animation* (3 credits)

Prerequisite: Enrolment in a Film Animation program; FMAN 204, 225, 256; or written permission of the School of Cinema. An intensive, hands-on introduction to the art, practice, and multiple techniques of direct animation, creating, photographing and erasing original images directly under the animation camera. Through a series of short exercises, guest lectures, and workshops, students explore the immediacy of a direct mark-making animation practice.

NOTE: Students are required to bear the cost of all necessary equipment, software and production materials for the course as described in the syllabus.

FMAN 301 *Expanded Animation Practices* (3 credits)

Prerequisite: Enrolment in a Film Animation program; FMAN 204, 256; or enrolment in the Faculty of Fine Arts; second-year standing with 66 or fewer credits remaining in degree program and written permission of the School of Cinema. A studio course experimenting with the art of film animation through short group projects informed by individual student interests in Fine Arts practices. This course introduces students from Film Animation and other Fine Arts disciplines to the collaborative exploration of a variety of direct animation techniques. Enhanced by field trips and guest lectures, students are introduced to the unique language of film animation and independent auteur-driven expressions of animation filmmaking.

NOTE: Students not enrolled in a Film Animation program may be required to submit a portfolio for review prior to receiving permission to enrol in this course.

NOTE: Students are required to bear the cost of all necessary equipment, software and production materials for the course as described in the syllabus.

FMAN 307 *Intermediate Animation I* (3 credits)

Prerequisite: Enrolment in the Major in Film Animation; FMAN 204, 225, 256; or written permission of the School of Cinema. A continuation of FMAN 204 with emphasis on exploring the art of animation filmmaking. Students explore film language, sound design, editing and enhance their knowledge of film-planning strategies and various frame-by-frame filmmaking techniques.

NOTE: It is recommended that students take FMAN 340 and 315 previously or concurrently.

NOTE: Students who have received credit for FMAN 305 may not take this course for credit.

NOTE: Students are required to bear the cost of all necessary equipment, software and production materials for the course as described in the syllabus.

FMAN 308 *Intermediate Animation II* (3 credits)

Prerequisite: Enrolment in the Major in Film Animation; FMAN 307; or written permission of the School of Cinema. A continuation of FMAN 307. This course allows students to further explore the planning and production of frame-by-frame animation filmmaking.

NOTE: It is recommended that students take FMAN 340 and 315 previously or concurrently.

NOTE: Students who have received credit for FMAN 305 may not take this course for credit.

NOTE: Students are required to bear the cost of all necessary equipment, software and production materials for the course as described in the syllabus.

FMAN 311 *Digital Animation and Creative Compositing* (3 credits)

Prerequisite: Enrolment in a Film Animation program; FMAN 204, 225, 256; or written permission of the School of Cinema. This course is designed to permit an in-depth exploration of various digital media by animating, editing and compositing animated media following the spirit of contemporary animated film. Exercises include exploration of digitally drawn or scanned elements, digital cut-outs, green screen and innovative stop-motion animation techniques. Emphasis is on personal expression, motion graphics and enhancement of professional animation skills.

NOTE: Students are required to bear the cost of all necessary equipment, software and production materials for the course as described in the syllabus.

FMAN 315 *From Idea to Storyboard* (3 credits)

Prerequisite: Enrolment in the Major in Film Animation; FMAN 204, 225, 256; or written permission of the School of Cinema. An exploration of the visual and written development of ideas and scripts in storyboard form. Students engage in creative and experimental exercises including timing, planning the soundtrack and creating animatics.

NOTE: Students are required to bear the cost of all necessary equipment, software and production materials for the course as described in the syllabus.

FMAN 319 *Character Animation* (3 credits)

Prerequisite: Enrolment in a Film Animation program; FMAN 204, 225, 256; or written permission of the School of Cinema. An examination of the fundamentals of character animation, its theory, techniques, and application to contemporary studio situations.

Exercises in character creation, design and dramatization are directed towards the students' particular interests and styles.

NOTE: Previous drawing experience is recommended.

NOTE: Students are required to bear the cost of all necessary equipment, software and production materials for the course as described in the syllabus.

FMAN 325 Advanced Analytical Drawing and Design for Animation (3 credits)

Prerequisite: Enrolment in a Film Animation program; FMAN 225; or written permission of the School of Cinema upon presentation of a portfolio. A continuation on a more advanced level of FMAN 225. An in-depth focus on drawing for animation film.

NOTE: Previous drawing experience is recommended.

NOTE: Students are required to bear the cost of all necessary equipment, software and production materials for the course as described in the syllabus.

FMAN 340 Sound for Animation Film (3 credits)

Prerequisite: Enrolment in the Major in Film Animation; FMAN 204, 225, 256; or written permission of the School of Cinema. An introduction to sound production theory, techniques and applications specific to animation films. Starting from the fundamentals of audio recording and multi-channel mixing, students progress through a series of hands-on workshops and exercises culminating in a fully realized soundtrack for an animation film.

NOTE: Students are required to bear the cost of all necessary equipment, software and production materials for the course as described in the syllabus.

FMAN 350 Introduction to Stop-Motion Animation (3 credits)

Prerequisite: Enrolment in a Film Animation program; FMAN 204, 225, 256; or written permission of the School of Cinema. An intensive hands-on seminar and workshop in the art and craft of stop-motion animation. This course is designed to acquaint the student with photographic and animation techniques in stop-motion. Puppets, clay and other techniques are explored. Emphasis is placed on animation skills within the stop-motion process. Basic model, puppet and set construction are introduced, as well as use of materials and lighting. Study of recent developments in international styles and techniques is included.

NOTE: Students who have received credit for FMAN 352 may not take this course for credit.

NOTE: Students are required to bear the cost of all necessary equipment, software and production materials for the course as described in the syllabus.

FMAN 355 Introduction to 3D Digital Animation (3 credits)

Prerequisite: Enrolment in a Film Animation program; FMAN 204, 256; or written permission of the School of Cinema. An intensive technical course in the art and creation of 3D computer graphics. Students learn to use 3D software and related applications for 3D computer animation, modelling, rigging, lighting and texture.

NOTE: Students who have received credit for FMAN 353 or 354 may not take this course for credit.

NOTE: Students are required to bear the cost of all necessary equipment, software and production materials for the course as described in the syllabus.

FMAN 398 Special Topics in Film Animation (3 credits)

Prerequisite: Written permission of the School of Cinema. An opportunity for study of limited and more specialized aspects of film animation.

NOTE: Students are required to bear the cost of all necessary equipment, software and production materials for the course as described in the syllabus.

FMAN 402 Advanced Animation Filmmaking (9 credits)

Prerequisite: Enrolment in the Major in Film Animation; FMAN 308; FMAN 315, 340 previously or concurrently. This course is a continuation on a more advanced level of FMAN 308. Students produce a major animation film project using the medium of their choice.

NOTE: Students are required to bear the cost of all necessary equipment, software and production materials for the course as described in the syllabus.

FMAN 436 Digital Post-Production for Animation (3 credits)

Prerequisite: FMAN 204, 256; or written permission of the School of Cinema. This course is both technical and aesthetically oriented, designed to develop an understanding of montage in terms of pacing, rhythm, transitions, and continuity. Working on a series of exercises, students are introduced to the digital postproduction process in film and animation. Topics include such elements as video signals, digital video formats, colour correction, codecs, and compression.

NOTE: Students who have received credit for FMAN 336 may not take this course for credit.

NOTE: Students are required to bear the cost of all necessary equipment, software and production materials for the course as described in the syllabus.

FMAN 437 Animated Special Effects (3 credits)

Prerequisite: Enrolment in a Film Animation program; FMAN 256; or written permission of the School of Cinema. Through a series of short exercises, students are introduced to the art of special effects creation, learning digital animated effects and practical special effects.

NOTE: Students are required to bear the cost of all necessary equipment, software and production materials for the course as described in the syllabus.

FMAN 440 Advanced 3D Digital Animation (3 credits)

Prerequisite: Enrolment in the Major in Film Animation; FMAN 355; or written permission of the School of Cinema. A continuation on a more advanced level of FMAN 355. An intensive technical course in the art and creation of 3D computer graphics. Students work with 3D software and related applications for advanced 3D computer animation, modelling, rigging, lighting and texture. Students are encouraged to explore the aesthetic combinations of digital 3D, 2D and other animation techniques in exercises and projects.

NOTE: Students who have received credit for FMAN 354 may not take this course for credit.

NOTE: Students are required to bear the cost of all necessary equipment, software and production materials for the course as described in the syllabus.

FMAN 446 Professional Internship I (3 credits)

Prerequisite: FMAN 203, 225, 256; written permission of the School of Cinema. A Film Animation student who will be employed within the film industry during the same calendar year may seek permission to apply three credits towards the Film Animation degree program. A written proposal describing the project must be submitted prior to the work taking place in order to determine the appropriateness of the level and scope of the project. The School of Cinema must be satisfied that the work will be done under the joint supervision of a qualified professional and a full-time Cinema faculty member.

FMAN 447 Professional Internship II (3 credits)

Prerequisite: Written permission of the School of Cinema. A student who has received credit for FMAN 446 and wishes to do a second professional internship registers for FMAN 447.

FMAN 448 Independent Study I (3 credits)

Prerequisite: 24 credits completed in Film Animation; written permission of the School of Cinema. A minimum cumulative GPA of 3.5 is required. This course offers a limited number of students the opportunity to pursue advanced research under the supervision of a full-time Cinema faculty member. A written agreement between the student and the supervisor shall clearly state the nature of the student's research, the scope of the project, and the work schedule. The study workload should be equivalent to a three-credit course in the program. Independent study may not duplicate curriculum offerings.

FMAN 449 Independent Study II (3 credits)

Prerequisite: FMAN 448; 24 credits completed in Film Animation; written permission of the School of Cinema. A minimum cumulative GPA of 3.5 is required. This course offers a limited number of students the opportunity to pursue advanced research under the supervision of a full-time Cinema faculty member. A written agreement between the student and the supervisor shall clearly state the nature of the student's research, the scope of the project, and the work schedule. The study workload should be equivalent to a three-credit course in the program. Independent study may not duplicate curriculum offerings.

FMAN 450 Advanced Stop-Motion Animation (3 credits)

Prerequisite: Enrolment in the Major in Film Animation; FMAN 350; or written permission of the School of Cinema. A continuation on a more advanced level of FMAN 350. An in-depth, hands-on course in the art and craft of stop-motion animation. Emphasis is on fine-tuning animation skills within the stop-motion process.

NOTE: Students are required to bear the cost of all necessary equipment, software and production materials for the course as described in the syllabus.

FMAN 498 Special Topics in Film Animation (3 credits)

Prerequisite: Written permission of the School of Cinema. A course for advanced students which provides an opportunity for the study of limited and more specialized aspects of film animation.

Film Production:

NOTE: A student may register for only one course in which films are produced as a course requirement during each academic session. See §81.60.2.

FMPR 231 Filmmaking I (6 credits)

Prerequisite: Enrolment in the Major in Film Production; or enrolment in the Specialization in Film Studies and written permission of the School of Cinema. A comprehensive course introducing students to the art of making motion pictures. This course stresses the individual student's creative efforts and expression through filmmaking. Students are expected to master basic technique and theory. Students use digital resources for acquisition and post-production. The course may require mandatory workshops outside of class time.

NOTE: Students are required to bear the production costs of all aspects of their course projects and supply their own means of storing media for editing and back-up.

FMPR 239 Montage I (3 credits)

Prerequisite: Enrolment in the Major in Film Production, and the following courses to be taken concurrently: FMPR 231; one of FMST 201, 202 or 203; FMST 220. An introduction to the technical workflows and software applications used in the film production program. Students explore the theory and technique of editing as it applies to different genres of filmmaking. The course may require mandatory workshops outside of class time.

NOTE: Students who have received credit for FMPR 339 may not take this course for credit.

FMPR 332 *Filmmaking II* (6 credits)

Prerequisite: Enrolment in the Major in Film Production; FMPR 231, 239; one of FMST 201, 202 or 203; FMST 220; and the following courses to be taken concurrently: FMPR 338, 340. An intermediate course that explores the theory, technique and practice of filmmaking. The course emphasizes idea development, creative process, production planning, methods of production and post-production. Diverse course sections include approaches to fiction and non-fiction. Students use digital resources for acquisition and post-production.

NOTE: Students are required to bear the production costs of all aspects of their course projects and supply their own means of storing media for editing and back-up.

FMPR 335 *Acting and Directing Acting for the Screen I* (3 credits)

Prerequisite: Written permission of the School of Cinema; FMPR 332 previously or concurrently, or six credits in Acting for the Theatre. This studio course for Cinema and Theatre students explores directing and performing for film; exercises are recorded on video for analysis. Both performers and directors examine acting and directing acting for the camera through such topics as role preparation, character development, and performance continuity.

FMPR 336 *Introduction to Film Producing* (3 credits)

Prerequisite: FMPR 231 or written permission of the School of Cinema. A comprehensive course introducing students to the creative and administrative challenges of producing. This includes strategies for fundraising, pre-production, budgeting and scheduling techniques, legal, financial and insurance concerns, post-production, distribution, and exhibition. A broad range of genres and platforms are covered.

FMPR 338 *Image I* (3 credits)

Prerequisite: Enrolment in the Major in Film Production; FMPR 231, 239; one of FMST 201, 202 or 203; FMST 220; and the following courses to be taken concurrently: FMPR 332, 340. A comprehensive course on the equipment and technology available to the contemporary filmmaker with a focus on the tools used by students in FMPR 332 Filmmaking II. Present-day technology is explored through the foundations of traditional camera and photographic theory toward an in-depth understanding of digital cinema. Extensive hands-on studio practice provides training in basic camera technique, lighting, and gripping. The course may require mandatory workshops outside of class time.

FMPR 340 *Sound I* (3 credits)

Prerequisite: Enrolment in the Major in Film Production; FMPR 231, 239; one of FMST 201, 202 or 203; FMST 220; and FMPR 332 to be taken concurrently. An introductory course in the technical aspects of designing sound for cinema in support of projects undertaken in FMPR 332. The course focuses on location recording, studio recording, and multi-track editing for layered sound design. The course may require mandatory workshops outside of class time.

FMPR 341 *Writing for Film I* (3 credits)

Prerequisite: Enrolment in the Major in Film Production; FMPR 231, 239; one of FMST 201, 202 or 203; FMST 220. An introduction to writing for film. Students explore the written word as a means to convey and clarify visual ideas and cinematic stories. Synopses, treatments and scenarios for various genres are explored. Students are required to submit their own writing for discussion and analysis.

FMPR 343 *Production Design* (3 credits)

Prerequisite: Enrolment in the Major in Film Production; FMPR 231; one of FMST 201, 202 or 203; FMST 220; or written permission of the School of Cinema. A practical examination of the visual aspects of film production. Topics in production design considered may include texture and visual styles, the collaborative process, project management, and the nature of constraints which apply to student and independent productions.

FMPR 350 *Ways of Seeing in Film Production* (3 credits)

Prerequisite: Enrolment in the Major in Film Production; FMPR 231, 239; one of FMST 201, 202 or 203; FMST 220. A forum of ideas intended to increase the student's awareness of cinema as a visual medium. Aspects of our visual culture are presented and discussed: work by painters, photographers, sculptors, architects, and artists working with digital media. A relationship is made between the work of such artists and the work of the filmmaker. Students work on individual visual projects.

NOTE: Students who have received credit for this topic under a FMPR 498 number may not take this course for credit.

FMPR 361 *Approaches to Non-fiction — Selected Topics* (3 credits)

Prerequisite: Enrolment in the Major in Film Production; FMPR 231, 239; one of FMST 201, 202 or 203; FMST 220. This course explores aesthetic, conceptual and methodological issues surrounding non-fiction film production. Topics include research methods, non-scripted approaches, ethics of presentation, archival or ethnographic practices in light of current platforms and technologies.

NOTE: Students who have received credit for this topic under a FMPR 498 number may not take this course for credit.

FMPR 398 *Special Topics in Film Production* (3 credits)

This course provides an opportunity for the study of specialized aspects of film production outside the scope of existing courses. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

FMPR 399 *Special Topics in Film Production* (6 credits)

A course which provides an opportunity for the study of specialized aspects of film production outside the scope of existing courses. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

FMPR 432 *Filmmaking III* (6 credits)

Prerequisite: FMPR 332, 338, 340; written permission of the School of Cinema; 30 or fewer credits remaining in the degree. An advanced course building on practices established in FMPR 332. Diverse course sections include approaches to fiction and non-fiction. Students use digital resources for acquisition of moving images and post-production.

NOTE: Students are required to bear the production costs of all aspects of their course projects and supply their own means of storing media for editing and back-up.

NOTE: Students who have received credit for FMPR 431 may not take this course for credit.

FMPR 435 *Acting and Directing Acting for the Screen II* (3 credits)

Prerequisite: FMPR 335 and written permission of the School of Cinema. A continuation of FMPR 335 on a more advanced level.

FMPR 438 *Image II* (3 credits)

Prerequisite: Enrolment in the Specialization in Film Production or the Major in Film Production; FMPR 332, 338, 340; written permission of the School of Cinema. This course builds on the technical knowledge acquired in FMPR 338 and focuses on the art and technology of image creation for cinema in support of projects in FMPR 432. Students explore advanced topics in lighting and camera technology.

FMPR 439 *Montage II* (3 credits)

Prerequisite: FMPR 239; 48 credits completed. An exploration of advanced methods, approaches and techniques used by editors working in various genres of film including drama, documentary and expanded cinema.

FMPR 440 *Sound II* (3 credits)

Prerequisite: Enrolment in the Specialization in Film Production or the Major in Film Production; FMPR 338, 340. The central focus of the course is creative sound design. Emphasis is on the interaction between sound and image in film and includes both individual and collective sound projects.

FMPR 441 *Writing for Film II* (3 credits)

Prerequisite: FMPR 341. An advanced exploration of topics covered in FMPR 341. Additional topics include adaptations of existing work for the screen and developing longer film projects. Three-act structures as well as new narrative formats and documentary approaches are explored. Students are required to submit their own writing for discussion and analysis.

FMPR 442 *Optical Printer Practice* (3 credits)

Prerequisite: Enrolment in the Major in Film Production with FMPR 338 previously or concurrently, or enrolment in the Major in Film Animation and FMAN 256, with written permission of the School of Cinema. A film production course assisting students in the understanding and application of advanced optical printer technology and aesthetics.

FMPR 444 *Expanded Cinema* (3 credits)

Prerequisite: FMPR 231, 239; one of FMST 201, 202 or 203; FMST 220. An advanced course introducing students to historical and current practices in expanded cinema practice. Expanded cinema emphasizes an approach to moving image-making that situates spectatorship and viewer engagement out of the confines of the traditional cinema exhibition. Students are encouraged to develop creative approaches in work that engages viewers in non-restricted spatial environments. Strong emphasis is placed on means of production and presentation that depart from established methods and models of film production.

FMPR 445 *Professional Internship* (6 credits)

Prerequisite: Written permission of the School of Cinema. A Film Production student who will be employed within the film industry during the same calendar year may seek permission to apply six credits towards the Film Production degree program. A written proposal describing the project must be submitted prior to the work taking place in order to determine the appropriateness of the level and scope of the project. The School of Cinema must be satisfied that the work will be done under the joint supervision of a qualified professional and a full-time Cinema faculty member.

FMPR 446 *Professional Internship I* (3 credits)

Prerequisite: Written permission of the School of Cinema. A Film Production student who will be employed within the film industry during the same calendar year may seek permission to apply three credits towards the Film Production degree program. A written proposal describing the project must be submitted prior to the work taking place in order to determine the appropriateness of the level and scope of the project. The School of Cinema must be satisfied that the work will be done under the joint supervision of a qualified professional and a full-time Cinema faculty member.

FMPR 447 *Professional Internship II* (3 credits)

Prerequisite: Written permission of the School of Cinema. A student repeating FMPR 446 for credit registers under FMPR 447.

FMPR 448 *Independent Study I* (3 credits)

Prerequisite: 24 credits completed in Film Production; written permission of the Department. A minimum cumulative GPA of 3.5 is required. This course offers a limited number of students the opportunity to pursue advanced research under the supervision of a full-time Cinema faculty member. A written agreement between the student and the supervisor shall clearly state the nature of the student's research, the scope of the project, and the work schedule. The study workload should be equivalent to a three-credit course in the program. Independent study may not duplicate curriculum offerings.

FMPR 449 *Independent Study II* (3 credits)

Prerequisite: FMPR 448; 24 credits completed in Film Production; written permission of the Department. A minimum cumulative GPA of 3.5 is required. This course offers a limited number of students the opportunity to pursue advanced research under the supervision of a full-time Cinema faculty member. A written agreement between the student and the supervisor shall clearly state the nature of the student's research, the scope of the project, and the work schedule. The study workload should be equivalent to a three-credit course in the program. Independent study may not duplicate curriculum offerings.

FMPR 450 *Film Production Specialization Seminar* (3 credits)

Prerequisite: Enrolment in the Specialization in Film Production and written permission of the School of Cinema. A seminar offering in-depth, practical approaches to artistic and technical situations. This course brings together all students in the Specialization in Film Production.

FMPR 451 *Advanced Project Internship I* (3 credits)

Prerequisite: Enrolment in the Specialization in Film Production or the Major in Film Production; FMPR 332 previously or concurrently; written permission of the School of Cinema. A Film Production student who contributes in a key position to a graduate project in the Film Production MFA program may apply for credits on the understanding that the application take place prior to the production and is authorized by the faculty members responsible for both programs.

FMPR 452 *Advanced Project Internship II* (3 credits)

Prerequisite: FMPR 451 and written permission of the School of Cinema. A student repeating FMPR 451 for credit registers under FMPR 452.

FMPR 498 *Special Topics in Film Production* (3 credits)

A course for advanced students which provides an opportunity for the study of limited and more specialized aspects of film production. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

FMPR 499 *Special Topics in Film Production* (6 credits)

A course for advanced students which provides an opportunity for the study of limited and more specialized aspects of film production. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

81.60.2 Filmmaking

Courses in which films are produced as a course requirement are:

FMAN 203³, 204³, 307³, 308³, 402⁹
FMPR 231⁶, 332⁶, 432⁶

81.60.3 Communication Studies Film Courses

NOTE: For course descriptions see §31.070.

Students enrolled in the Film Studies or Film Production Major or Specialization programs may select up to 12 credits from the Communication Studies courses listed below. Students enrolled in the Minor in Cinema and the Minor in Film Studies may select up to six credits from the Communication Studies courses listed below.

The credits earned may be applied as Film Studies and/or Cinema electives for degree purposes.

- | | |
|----------|---|
| COMS 301 | Selected Topics in National Cinemas (3 credits) |
| COMS 304 | Selected Topics in Film Studies (3 credits) |
| COMS 416 | Advanced Media Criticism (3 credits) |
| COMS 434 | Advanced Topics in Film Studies (3 credits) |
-

CONTEMPORARY DANCE

Section 81.70

Faculty

Chair

SILVY PANET-RAYMOND, MEd *Université de Montréal*; Professor

Professor

MICHAEL MONTANARO, Grad. Maj. *Hartford Conservatory*

Associate Professor

ANGÉLIQUE WILLKIE, MA Economics *McGill University*

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus
GM Building, Room: 500-01
Tel.: 514-848-2424, ext. 4555/4559
Email: dance@concordia.ca
Website: concordia.ca/finearts/dance

Department Objectives

The Contemporary Dance Department offers comprehensive training which combines formal dance training with extensive studies in choreography. Encouraging students to discover and develop their individual creative capacities as both dancers and choreographers is the mission of the Dance program.

Performance is a crucial element in this development, and students at Concordia gain valuable experience performing or staging their own choreographies.

Program

Students are responsible for satisfying their particular degree requirements; hence, the following sequence must be read in conjunction with §81.20.

The superscript indicates credit value.

- | | |
|----|---|
| 60 | BFA Major in Contemporary Dance |
| 18 | DANC 201 ⁶ , 301 ⁶ , 401 ⁶ |
| 18 | DANC 205 ⁶ , 305 ⁶ , 405 ⁶ |
| 12 | DANC 320 ⁶ , 420 ⁶ |
| 3 | DANC 211 ³ |
| 3 | DANC 250 ³ |
| 3 | DANC 260 ³ |
| 3 | DANC 350 ³ |
-

81.70.1 Admission to Contemporary Dance

There is a distinct procedure for admission to the Major in Contemporary Dance in addition to the normal admission process of Concordia University. All applicants to Contemporary Dance are required to attend an *audition* as part of the admission process. Applicants should preferably contact the Department of Contemporary Dance before March 1 to arrange their audition and for detailed information regarding admission to Dance.

Courses

DANC 201 Creative Process I (6 credits)

Prerequisite: Appropriate technique course (DANC 205 [210], 305 [310], or 405 [410], as determined by the Department) concurrently; enrolment in the Major in Contemporary Dance, or written permission of the Department. Introduction to the creative process in dance. Students learn to explore, observe, and structure ideas and movements through improvisations and specific exercises

which cover such fundamentals as kinetics, rhythm and dynamics, spatial organization, perceptual skills, integration of acoustic, visual and verbal elements, and the use of technology as a creative tool. In addition to the regular studio hours, students must attend two hours of laboratory each week.

NOTE: Students who have received credit for DANC 200 may not take this course for credit.

DANC 205 *Technique I* (6 credits)

Prerequisite: Enrolment in the Major in Contemporary Dance, or written permission of the Department. Emphasis is placed on the proper alignment and placement of the body in stillness and in motion. Integration and execution of movement fundamentals and sequences are taught as a preparation for dance.

NOTE: Students who have received credit for DANC 210 may not take this course for credit.

DANC 211 *Dance Traditions* (3 credits)

A survey of the history of dance, including relations between modernism, post-modernism, and beyond. Support material may include slides and videos, and bibliographies of specific topics. The course is also designed to provide opportunities for personal and critical reflection and stimulation for contemplating ideas related to dance.

DANC 240* *Principles of Contemporary Dance* (6 credits)

Prerequisite: Written permission of the Department of Contemporary Dance. A survey of technical skills, improvisation, and dance composition. Studio: four hours per week. Laboratory: two hours per week.

**Students enrolled in the Major in Contemporary Dance may not take this course for credit towards their degree program.*

DANC 250 *Aspects of Production for Dance* (3 credits)

Prerequisite: Enrolment in the Major in Contemporary Dance, or written permission of the Department. This course provides students with a forum for exploration, experimentation, and for study of process and principles of technical production in the performing arts. Students learn the basic techniques of creation-based production as well as the practical skills used in the successful application of technical theory. Topics may include costume, make-up, audio-visual support and documentation as well as the use of current technologies within the context of the creative and choreographic process of contemporary dance.

DANC 260 *Sound and Silence for the Dancer* (3 credits)

Prerequisite: Enrolment in the Major in Contemporary Dance, or written permission of the Department of Contemporary Dance. The basics of music theory through guided analytical text using singing, single line score reading and moving, including the study of rhythm, melody, harmony, tempi, dynamics, tone colour, and musical forms with emphasis on the fundamental understanding of rhythm, melody, and harmony physically and mentally.

NOTE: Students who have received credit for DANC 230 may not take this course for credit.

DANC 261 *Summer Workshop in Dance I* (3 credits)

Prerequisite: Written permission of the Department of Contemporary Dance. Sequences of studio sessions which may include body movement, improvisation, performance technique, and choreography. Studio: four hours per week. Laboratory: two hours per week.

NOTE: Students enrolled in the Major in Contemporary Dance may not take this course for credit towards their program requirements.

DANC 262 *Summer Workshop in Dance II* (3 credits)

Prerequisite: Written permission of the Department of Contemporary Dance. A continuation of DANC 261. Studio: four hours per week. Laboratory: two hours per week.

NOTE: Students enrolled in the Major in Contemporary Dance may not take this course for credit towards their program requirements.

DANC 301 *Creative Process II* (6 credits)

Prerequisite: Appropriate technique course (DANC 205 [210], 305 [310], or 405 [410], as determined by the Department) and DANC 320 concurrently; DANC 200 or 201; and enrolment in the Major in Contemporary Dance, or written permission of the Department. A continuation of DANC 200. Students further develop the practical and theoretical aspects of the creative process in dance and the elaboration of an individualized kinetic language. Methods of research and their application to concepts, themes, collaborations, projects, and the use of technology are evolved in studio and laboratories. In addition to the regular studio hours, students must attend two hours of laboratory each week.

NOTE: Students who have received credit for DANC 300 may not take this course for credit.

DANC 305 *Technique II* (6 credits)

Prerequisite: Enrolment in the Major in Contemporary Dance, or written permission of the Department. Emphasis is placed on the technical development of suppleness, strength, coordination, rhythm, and kinetic fundamentals. Loco-motor patterns, spatial relations, and phrasing are formulated into movement sequences to prepare the students for dance.

NOTE: Students who have received credit for DANC 310 may not take this course for credit.

DANC 320 *Choreography I* (6 credits)

Prerequisite: Appropriate technique course (DANC 205 [210], 305 [310], or 405 [410], as determined by the Department) and DANC 300 or 301 concurrently; enrolment in the Major in Contemporary Dance, or written permission of the Department. Choreography is the art of rendering a concept into the physical design of dance through movement and forms of notation. This course develops personal creativity and broadens the student's physical and expressive potential into public performances. By

organizing movement, space, and time into dances, students follow through the stages of originating ideas, developing themes, and rehearsing and performing choreographic creations. The course also explores the role that technology plays within both the choreographic and production processes. Practical exercises provide students with a working knowledge in the use of video, sound manipulation, and stage lighting.

DANC 330 *Principles of Anatomy and Body Movement* (6 credits)

Prerequisite: DANC 205 (210), and written permission of the Department of Contemporary Dance. A workshop of movement fundamentals based on the practical understanding of anatomy and dance technique. Studio: six hours per week.

DANC 350 *Practical Anatomy for the Moving Body* (3 credits)

An introduction to human anatomy in relation to movement and dance. The study of skeletal structure and the function of muscles and joints for proper alignment.

DANC 398 *Special Topics in Dance* (3 credits)

Prerequisite: Written permission of the Department of Contemporary Dance. Topics vary from year to year, taking into account the special aptitudes of instructors and students. Studio: six hours.

DANC 401 *Creative Process III* (6 credits)

Prerequisite: Appropriate technique class (DANC 205 [210], 305 [310], or 405 [410], as determined by the Department) and DANC 420 concurrently; enrolment in the Major in Contemporary Dance, or written permission of the Department. A continuation of DANC 301 (300). This course enables students to advance their creative process and practice as movement artists through kinetic exploration, improvisation, performance coaching, extended studio projects, and lab reports. Discussion of current artistic issues and cultural manifestations help students situate their own research within a diversity of contexts. Building on initial research carried out in DANC 301 (300), further exploration is conducted into the use of technology within the creative process. In addition to the regular studio hours, students must attend two hours of laboratory each week.

NOTE: Students who have received credit for DANC 400 may not take this course for credit.

DANC 405 *Technique III* (6 credits)

Prerequisite: Enrolment in the Major in Contemporary Dance, or written permission of the Department. Emphasis is placed on refining and consolidating the student's practical understanding of kinetics in relation to placement, locomotion, movement patterns, dynamics, and phrasing. Students refine their perceptual and memory skills, and learn to integrate more complex movement notions to support interpretation in dance.

NOTE: Students who have received credit for DANC 410 may not take this course for credit.

DANC 420 *Choreography II* (6 credits)

Prerequisite: Appropriate technique class (DANC 205 [210], 305 [310], or 405 [410], as determined by the Department) and DANC 401 (400) or 405 (410) concurrently; enrolment in the Major in Contemporary Dance, or written permission of the Department. Building on initial research carried out in DANC 320, further exploration is conducted into the use of technology within the choreographic process as well as an examination of the role that it plays in all aspects of production. This course expands on various approaches to choreography through movement research, discussion and theory, extended studio assignments, rehearsal management, and production. Students also examine the role of the choreographer in social, political, and artistic contexts. Students are expected to produce work for public performance.

DANC 441 *Independent Study I* (3 credits)

Prerequisite: Written permission of the Department. Students who have completed advanced choreography courses or the equivalent have the opportunity of carrying out a project of independent study. Subject matter must deal with specific aspects of contemporary dance. Tutorials with the project advisor are mandatory.

DANC 442 *Independent Study II* (3 credits)

Prerequisite: Written permission of the Department of Contemporary Dance. A student repeating DANC 441 registers for credit under DANC 442.

DANC 499 *Topics in Dance* (6 credits)

Prerequisite: Written permission of the Department of Contemporary Dance. Advanced choreography where movement shares equal emphasis with all other arts developed into multimedia theatre. Studio: four hours per week. Practice laboratory: two hours per week. Rehearsal: four hours per week.

Faculty

Chair

GUYLAINE VAILLANCOURT, PhD *Antioch University*: Associate Professor

Professors

JOSÉE LECLERC, PhD *Concordia University*
STEPHEN SNOW, PhD *New York University*

Associate Professors

BONNIE HARNDEN, MA *Concordia University*
JANIS TIMM-BOTTOS, PhD *University of New Mexico*
LAUREL YOUNG, PhD *Temple University*

Assistant Professor

CYNTHIA BRUCE, PhD *Acadia University*

Lecturer

JESSICA BLEUER, MEd *University of Toronto*, MA *Concordia University*
HEATHER MC LAUGHLIN, MA *Concordia University*

Affiliate Professor

LELAND PETERSON, MA *School of the Art Institute of Chicago*

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus
Visual Arts Building, Room: VA 264
514-848-2424, ext. 4790
concordia.ca/finearts/creative-arts-therapies

Department Objectives

The Department of Creative Arts Therapies offers select undergraduate courses that provide students with diverse ranges of concepts and practices in the field of arts in health. The Department offers a program of study with options of specialization in either Art Therapy, Drama Therapy, or Music Therapy, all leading to the degree of Master/Magisteriate of Arts in Creative Arts Therapies. In addition, the Department offers a Graduate Diploma in Music Therapy and a Graduate Certificate in Play Therapy. Undergraduate courses at the 300 level are prerequisites for admission to either the Art Therapy MA Option, the Drama Therapy MA Option, or the Graduate Diploma in Music Therapy. These courses are designed to provide prospective students with a foundation in either Art Therapy, Drama Therapy, or Music Therapy.

Courses

CATS 210 *Introduction to Creative Arts Therapies* (3 credits)

Students are introduced to the basic concepts and practices of creative arts therapies, including visual art, drama, music, and dance. Students study general theories and themes common to all of the creative arts therapies that may include creative projection, the role of the witness, expression, symbols, meaning making, and therapeutic alliance. These themes are explored through readings, videos, assignments, blogs and creative journals. Students are introduced to specific sites where creative arts therapists practise with diverse populations to gain a basic understanding of how the creative arts therapies function and the range of professional practices.

Art Therapy:

This course is intended as partial preparation for graduate studies in the field of art therapy.

ATRP 301 *An Introduction to Art Therapy* (3 credits)

Prerequisite: 30 credits; PSYC 200 or equivalent; six credits in Studio Arts. This course provides an introduction to the subject and profession of art therapy, including its history, key processes, and selected approaches. Didactic and experiential components provide students with a broad understanding of the application of basic concepts in art therapy.

Drama Therapy:

This course is intended as partial preparation for graduate studies in the field of drama therapy.

DTHY 301 *An Introduction to Drama Therapy* (3 credits)

Prerequisite: 30 credits. This course provides an introduction to the subject and profession of drama therapy, including its history, key processes, and selected approaches. Didactic and experiential components provide students with a broad understanding of the application of basic concepts in drama therapy.

NOTE: Students who have received credit for TDEV 421, DFHD 421, or DINE 420 may not take this course for credit.

Music Therapy:

This course is intended as partial preparation for graduate studies in the field of music therapy.

MTHY 301 *An Introduction to Music Therapy* (3 credits)

Prerequisite: 30 credits. This course provides an introduction to the subject and profession of music therapy, including its history, key processes, and selected approaches. Didactic and experiential components provide students with a broad understanding of the application of basic concepts in music therapy.

Faculty

Chair

PK LANGSHAW, MFA *Université du Québec à Montréal*; Professor

Professors

JASON EDWARD LEWIS, MPhil *Royal College of Art*

MARTIN RACINE, PhD *Université de Montréal*

RHONA RICHMAN KENNEALLY, PhD *McGill University*

CHRISTOPHER SALTER, PhD *Stanford University*

Associate Professors

JOANNA BERZOWSKA, MSc *Massachusetts Institute of Technology*

CARMELA CUCUZZELLA, PhD *Université de Montréal*

RILLA KHALED, PhD *Victoria University of Wellington*

JONATHAN LESSARD, PhD *Université de Montréal*

CHRISTOPHER MOORE, MFA *Nova Scotia College of Art and Design*

M. WRIGHT, MFA *School of the Art Institute of Chicago*

Assistant Professors

PIPPIN BARR, PhD *Victoria University of Wellington*

ALICE JARRY, MA *Université du Québec à Montréal*

MIRANDA SMITHERAM, PhD *Auckland University of Technology*

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus

Engineering, Computer Science and Visual Arts Complex, Room: EV 6.761

514-848-2424, ext. 4626

Department Objectives

The Department offers programs that examine the broad vision or culture of design within contemporary society.

The Design Major is located primarily within the disciplines of image, object-making, and screen-based media in design practice with an emphasis on the study of material culture. Digital technologies are integrated into the creative process to serve as strategies and tools for enhanced communication, application, representation, and dissemination.

The Computation Arts programs are concentrated within the digital and virtual environments where computer technology is embedded in all stages of the creative process and production. The Internet as a system for communication in information and networked societies serves as the intersection that strongly links the disciplines of Design and Computation Arts. Students are encouraged to take courses across Design and Computation Arts.

81.90.1 DESIGN

Program Objective

The Major in Design program explores the principal areas of visual communication and the built environment. The program encourages critical thinking and takes an interdisciplinary approach to design theory and practice. Its overarching principle is socio-cultural, environmental, and economic sustainability. Students begin their studies by developing knowledge and technical skill sets across these areas and then specialize according to their interests and abilities. The curriculum engages the student in creative work with the understanding of the impact and consequence of their designs in everyday life. In a collaborative and shared environment, students participate in diverse local outreach and community initiatives.

Program

Students are responsible for fulfilling their particular degree requirements; hence, the following sequence must be read in conjunction with §81.20.

The superscript indicates credit value.

- 66 **BFA Major in Design**
- 3 DART 261³
 - 3 DART 262³ or 263³
 - 12 DART 221³, 280³, 291³, 292³
 - 6 DART 391³, 392³
 - 3 DART 349³ or 380³
 - 3 Chosen from DART 300-level electives
 - 3 DART 491³
 - 3 DART 492³ or 493³
 - 15 Chosen from DART 400-level electives
 - 6 Chosen from ARTH; ARTT; or other Fine Arts history- or theory-based courses
 - 9 Chosen from any Fine Arts electives (including Computation Arts)
-

Design C.Edge (Career Edge) Option

The C.Edge option is available to selected students who are enrolled in the BFA program in Design. The academic content of the C.Edge option is identical to the regular program with some specific recommendations for courses designed to improve and enhance the student's quality of work performance. Please see §24 for specific details concerning the program.

Admission to the Major in Design

In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to the Major in Design. All applicants must submit a *portfolio* of their own work, as well as a *letter of intent*, as part of the admission process.

For more information concerning these additional requirements and submission deadline dates, please visit the following website: concordia.ca/finearts/future-students/applying-undergraduate.

81.90.2 COMPUTATION ARTS

Program Objective

The Computation Arts programs facilitate a hybrid learning environment for the integration of fine arts and computer science. The core curriculum incorporates conceptual and technical aspects of dynamic imagery, sound, and virtual dimension. Teaching emphasizes non-traditional applications of digital technologies while also developing awareness of the cultural and political implications of new technologies in networked and information societies. Areas of interest in the program include interaction design, physical computing, immersive environments, and experimental sound.

Programs

Students are responsible for fulfilling their particular degree requirements; hence, the following sequence must be read in conjunction with §81.20.

The superscript indicates credit value.

- 60 **BFA Specialization in Computation Arts**
- 18 CART 210³, 211³, 212³, 214³, 253³, 263³
 - 3 CART 310³
 - 12 Chosen from 300-level CART courses
 - 3 CART 410³
 - 9 Chosen from 400-level CART courses
 - 9 Chosen from any Fine Arts electives (including Design)
 - 6 Chosen from other Fine Arts non-studio electives
- 45 **BFA Joint Major in Computation Arts and Computer Science**
- 6 FFAR 250⁶
 - 12 CART 210³, 211³, 212³, 214³
 - 3 CART 310³
 - 6 Chosen from 300-level CART courses
 - 3 CART 410³
-

- 9 Chosen from 400-level CART courses
- 6 Chosen from DART or other Fine Arts electives

NOTE: This program must be taken in combination with the BCompSc Joint Major in Computation Arts and Computer Science (45 credits) offered by the Department of Computer Science and Software Engineering, for a total of 90 credits (see §71.80 for details).

- 24 Minor in Computation Arts
- 12 CART 211³, 212³, 253³, 263³
- 6 Chosen from 300-level CART courses
- 6 Chosen from 400-level CART courses

- 24 Minor in Game Design
- 3 CART 215³
- 3 Chosen from CART 253³; COMP 218³, 248^{3,5}
- 3 Chosen from CART 315³, 353³; COMP 376⁴
- 3 Chosen from CART 210³; DART 261³; ENGL 255³; FFAR 257³
- 3 Chosen from CART 415³, 416³
- 3 CART* or COMP** elective
- 3 CART* elective
- 3 Fine Arts elective

*Excluding CART 253 and 315

**Excluding COMP 218, 248 and 376

Computation Arts C.Edge (Career Edge) Option

The C.Edge option is available to selected students who are enrolled in the BFA program, Major or Specialization in Computation Arts. The academic content of the C.Edge option is identical to that of the regular program with some specific recommendations for courses designed to improve and enhance the student's quality of work performance. Please see §24 for specific details.

Admission to the Specialization and Minor** in Computation Arts, the Joint Major* in Computation Arts and Computer Science, and the Minor** in Game Design

In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to the Specialization or the Joint Major in Computation Arts and Computer Science. All applicants must submit a *portfolio* of their own work, as well as a *letter of intent*, as part of the admission process.

*The BFA Joint Major in Computation Arts and Computer Science (45 credits) must be taken in combination with the BCompSc Joint Major in Computation Arts and Computer Science (45 credits) offered by the Department of Computer Science and Software Engineering (see §71.80 for details). Candidates applying for the Joint Major in Computation Arts and Computer Science are required to complete the 10.12 profile: Mathematics 103 or 201-NYA and 203 or 201-NYB, and 105 or 201-NYC. Candidates lacking Cegep profile 10.12, but with a suitable background, may also be considered for this program. Applicants to the Specialization or Minor in Computation Arts require no background in mathematics.

**The Minor in Computation Arts and the Minor in Game Design are available to a limited number of high-ranking students. Applicants must submit a full portfolio by the March 1 deadline and may contact the Department of Design and Computation Arts for specific application procedures.

For more information concerning these additional requirements and submission deadline dates, please visit concordia.ca/finearts/design.

COURSES

Computation Arts:

CART 210 **New Media Theory** (3 credits)

Prerequisite: Enrolment in a Computation Arts program or written permission of the Department. This course is a critical introduction to new media theory focusing on issues of interaction, inscription, representation, code, reproduction, spectacle, control, body and resistance. Students develop tools to undertake a critical analysis of media and technology and their social, political, economic, and cultural ramifications.

NOTE: Students who have received credit for CART 255 may not take this course for credit.

CART 211 **Creative Computing and Network Culture** (3 credits)

Prerequisite: Enrolment in a Computation Arts program or written permission of the Department. This course gives a broad introduction to the fundamentals of creative computing and network culture. Through readings and practical examples, students explore the histories of the Internet, computing, and interactivity as well as gain knowledge of fundamental technical tools used for creating network-based media.

NOTE: Students who have received credit for DFAR 251 or CART 251 may not take this course for credit.

CART 212 *Digital Media Studio I* (3 credits)

Prerequisite: CART 211; enrolment in a Computation Arts program; or written permission of the Department. This studio-based course focuses on the production of dynamic and interactive audio/visual media. Students develop proficiency in generating original audio and visual material as well as exposure to current digital media software. Concurrent with gaining knowledge of existing tools for production, students create a high-quality studio work for portfolio inclusion.

NOTE: Students who have received credit for DFAR 252 or CART 252 may not take this course for credit.

CART 214 *Visual Form and Communication* (3 credits)

Prerequisite: Enrolment in a Computation Arts program or written permission of the Department. Key themes of visual communication are explored in the context of computation arts. This studio course considers design elements such as line, pattern, shape, texture, interpretation of space, surface, perspective, dimension, repetition, randomness, colour and colour spaces, typography, drawing from observation, layout and composition and conceptualization. This class is predominantly non-digital and discusses the relationships between analog and digital approaches.

NOTE: Students who have received credit for CART 254 may not take this course for credit.

CART 215 *Introduction to Game Design* (3 credits)

Prerequisite: Enrolment in a Computation Arts program or the Minor in Game Design or written permission of the Department. This course is an introduction to the design of playful activities and games in particular. Students are introduced to terminology, conceptual frameworks, and critical approaches in order to develop a precise understanding of games at a formal and pragmatic level. Students acquire and develop tools to conceive, formalize, and communicate game design ideas.

NOTE: Students who have received credit for this topic under a CART 398 number may not take this course for credit.

CART 253 *Creative Computation I* (3 credits)

Prerequisite: Enrolment in the Specialization or Minor in Computation Arts or written permission of the Department. This course focuses on developing students' programming abilities, beginning with basic concepts and building toward approaches of increasing complexity. Students put these concepts and techniques into practice by creating their own expressive digital media projects, exploring areas such as interactivity, play, sound, and video.

CART 263 *Creative Computation II* (3 credits)

Prerequisite: CART 253; or written permission of the Department. In this course, students build on developing proficiency in programming by engaging in larger-scale project work and learning to use more sophisticated data structures, algorithms, and code reuse. Emphasis is placed on developing ambitious and experimental applications that engage deeply with the underlying ideas of computation as a medium.

CART 310 *Interaction Design Studio* (3 credits)

Prerequisite: CART 210; 24 credits completed in a Computation Arts program or written permission of the Department. This course introduces the theories and practices of interaction design. Students learn about interaction design from the early history of computers and computation through to present-day best practice and experimental approaches still being developed. In the studio portion of the course, students apply the theory introduced by developing specific prototype works in multiple forms, including paper, video and digital prototypes.

CART 312 *Digital Media Studio II* (3 credits)

Prerequisite: CART 212; 24 credits completed in a Computation Arts program; or written permission of the Department. This studio-based course furthers work done in CART 212, focusing on the production and authoring of dynamic audio/visual media using advanced techniques such as compositing and motion graphics. Students develop proficiency in generating original audio and visual material as well as exposure to current digital audio-visual-authoring software including postproduction environments such as After Effects and Motion. Concurrent with gaining knowledge of existing tools for production, students create a term-long project which will be a high quality, studio work appropriate for portfolio inclusion.

NOTE: Students who have received credit for CART 352 may not take this course for credit.

CART 315 *Digital Game Prototyping* (3 credits)

Prerequisite: CART 263 or COMP 218 or COMP 248; or written permission of the Department. Students study specialized game technology, create a series of digital game prototypes, and are introduced to higher level programming concepts pertaining to interactive applications. Efficient approaches to the design and development of complex interactive software, such as iterative development and rapid prototyping, are explored.

NOTE: Students who have received credit for this topic under a CART 398 number or for COMP 376 may not take this course for credit.

CART 345 *Digital Texts and Typography I* (3 credits)

Prerequisite: 24 credits completed in a Computation Arts program; or written permission of the Department. This is a studio course in which students conduct experiments in digital text, type, and typography. It looks at how type can be used in dynamic, interactive, and performative contexts, how manipulating the appearance and behaviour of type affects the meaning of the text, and how to work with the materiality of letterforms. Class projects include motion typography for video, interactive texts, liquid/random/malleable fonts, and computationally responsive letterforms.

NOTE: Students who have received credit for this topic under a CART 355 number may not take this course for credit.

NOTE: Students are expected to have training in the fundamentals of typography.

CART 346 *Digital Sound I: Theory and Practice of Real-Time Audio* (3 credits)

Prerequisite: 24 credits completed in a Computation Arts, Electroacoustics, or Intermedia (Video, Performance and Electronic Arts) program; or written permission of the Department. This course is an introduction to the fundamental principles of real-time digital audio: the use of a computer to process, synthesize, and manipulate digitized representations of sound in real-time. Topics such as physics of sound, sampling, synthesis techniques, filters, and acoustics are introduced through the use of the real-time programming environments Max/MSP and SuperCollider. Students experiment with digital audio techniques through lab exercises and the development of a final real-time composition/sound design work.

NOTE: Students who have received credit for this topic under a CART 356 number may not take this course for credit.

CART 347 *Digital Sound II: Sound Design* (3 credits)

Prerequisite: CART 346; 24 credits completed in a Computation Arts, Electroacoustics, or Intermedia (Video, Performance and Electronic Arts) program; or written permission of the Department. This course is a seminar/project studio in the conceptual and technical nature of digitally based sound design for film, video, and interactive multimedia (web, DVDs, games, sensor-augmented environments). Topics include sound and image fusion, audio-vision and conceptual/technical issues related to file and compression formats, spatialization (5.1), communication protocols, editing, mixing, tracking, asset creation and socio-cultural theories of audition. A term-long individual or group-based project is developed that takes participants through all phases of the sound design production workflow.

NOTE: Students who have received credit for this topic under a CART 356 number may not take this course for credit.

CART 351 *Networks and Navigation* (3 credits)

Prerequisite: CART 211, 212; CART 263 or COMP 248; 24 credits completed in a Computation Arts program or written permission of the Department. In this course, students develop interactive projects that use networked data, redefine online communities, and experiment with new communication structures. The perceptual and aesthetic aspects of digital media are addressed in relation to the technical skill sets required for navigating and understanding the possibilities and limits of networked environments.

CART 353 *Creative Computation III* (3 credits)

Prerequisite: CART 263 or written permission of the Department. In this course, students develop their programming skills via specific technologies and design perspectives, including but not limited to artificial life, evolutionary computation, procedural content generation, and playful design. The course focuses on students' own studio practice as artist-programmers and supports their continuing exploration of the medium.

CART 355 *Topics in Kinetic Imagery* (3 credits)

Prerequisite: 24 credits in a Computation Arts program. This course provides an opportunity for the study of special topics in kinetic imagery. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

NOTE: Students who have received credit for DFAR 355 may not take this course for credit.

CART 356 *Topics in Abstract Soundscapes* (3 credits)

Prerequisite: 24 credits in a Computation Arts program. This course provides an opportunity for the study of special topics in abstract soundscapes. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

NOTE: Students who have received credit for DFAR 356 may not take this course for credit.

CART 357 *Topics in Digital Space* (3 credits)

Prerequisite: 24 credits in a Computation Arts program. This course provides an opportunity for the study of special topics in digital and immersive space. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

NOTE: Students who have received credit for DFAR 357 may not take this course for credit.

CART 358 *Topics in Senses and Perception* (3 credits)

Prerequisite: 24 credits in a Computation Arts program. Research into sensory perception, touch, and noise is key to project proposals, methodology, and production. Interdisciplinary referencing and collaborative projects are emphasized. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

NOTE: Students who have received credit for DFAR 358 may not take this course for credit.

CART 360 *Tangible Media and Physical Computing* (3 credits)

Prerequisite: CART 263* or COMP 248; 24 credits completed in a Computation Arts program or written permission of the Department. This course explores the concepts of tangible media and physical computation as well as related concepts of ubiquitous computing, wearable computing, and interaction design. The focus is on conceptual development, prototyping, and implementation of tangible media and physical computing artifacts from the perspectives of technical proficiency, functionality, aesthetics, and personal/social meaning.

**Students in the Specialization in Computation Arts must complete CART 263.*

CART 361 *3D Digital Production I* (3 credits)

Prerequisite: 24 credits completed in a Computation Arts program; or written permission of the Department. In this studio course, students are introduced to the language, principles, and practices of 3D digital animation. Students are exposed to a wide range of traditional film animation techniques and learn the technical skills and conceptual strategies for 3D digital production.

NOTE: Students who have received credit for CART 261 may not take this course for credit.

CART 362 *3D Digital Production II* (3 credits)

Prerequisite: CART 361; 24 credits completed in a Computation Arts program; or written permission of the Department. This intermediate studio furthers conceptual and technical skills related to 3D digital animation. Through film analysis, readings, and lectures, students study film animation aesthetics, contemporary film practice, and advanced 3D animation techniques.

NOTE: Students who have received credit for CART 262 may not take this course for credit.

CART 370 *Real-Time Video* (3 credits)

Prerequisite: 24 credits completed in a Computation Arts program; or written permission of the Department. A studio course in the creation and real-time processing of moving textures and video. This course surveys computer-based video art, particularly applied to installation or performance arts. It provides an introduction to mathematical approaches to real-time processing of 2D and higher-dimensional arrays, image and video filters, motion segmentation, and tracking blobs, optical flow, faces, and shapes.

NOTE: Students who have received credit for this topic under a CART 498 number may not take this course for credit.

NOTE: Students should have experience or knowledge in videography and video editing.

CART 398 *Special Topics in Computation Arts* (3 credits)

Prerequisite: Enrolment in a Computation Arts program or written permission of the Department. This course provides an opportunity for the study of specialized aspects and applications in computation arts. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

CART 410 *Research-Creation in the Computation Arts* (3 credits)

Prerequisite: CART 210, 310; or written permission of the Department. This course consolidates and contextualizes students' existing understanding of their own practice by framing it in terms of research-creation. Related theoretical and methodological frameworks are introduced and discussed in order to give students the language and conceptual insight to think, write and speak convincingly about their own and others' work.

CART 411 *Project Studio I* (3 credits)

Prerequisite: 48 credits completed in a Computation Arts program or written permission of the Department. In this course, students integrate skills with objects, narratives, and environments. They refine both critical and practical management skills in team-based projects.

CART 412 *Project Studio II* (3 credits)

Prerequisite: CART 411; 48 credits completed in a Computation Arts program; or written permission of the Department. An advanced studio and theory course in which students integrate skills with objects, narratives, and environments. They refine both critical and practical management skills in team-based projects.

NOTE: Students who have received credit for CART 452 may not take this course for credit.

CART 414 *Matter and Media* (3 credits)

Prerequisite: CART 210; 48 credits completed in a Computation Arts program; or written permission of the Department. This seminar prepares students for professional creation/research via analog or computational media and material arts, informed by philosophy of technology, art, and design. Topics may include continuity, transformation, distributed agency, responsivity, and tangibility.

NOTE: Students who have received credit for this topic under a CART 454 number may not take this course for credit.

CART 415 *Game Studio I* (3 credits)

Prerequisite: CART 315 or 353 or COMP 376; or written permission of the Department. This course introduces students to experimental game design, especially through the creation of their own unconventional and expressive digital games. A theoretical and critical understanding of play and games is established through lectures, discussion, game playing, game making and critiques. Students make multiple prototype games in order to better understand relationships between design, technology and the resulting player experience.

CART 416 *Game Studio II* (3 credits)

Prerequisite: CART 315 or 353 or COMP 376; or written permission of the Department. In this studio course, students engage in larger-scale, team-based, iterative game development projects. Specific attention is given to the design of games that have intended purposes alongside entertainment — whether these be expressive, critical, persuasive, or educational in nature. Working in teams, students move from developing a concept around a rhetorical/experiential intention, to designing and developing a digital game prototype, and finally to examining play outcomes. Practical work is in dialogue with theory drawn from game design, game studies and interaction design.

CART 433 *(also listed as DART 455)****Information Design*** (3 credits)

Prerequisite: 48 credits in Computation Arts or written permission of the Department. This course focuses on rhetoric, visualization of information, instructions and complex text-based content. Issues of communication, simplification and clarification of content, and information architecture are addressed through diagrams, maps and visualization of statistics.

NOTE: Students who have received credit for DART 455 or for this topic under a DART or CART 498 number may not take this course for credit.

CART 434 Advanced 3D Studio (3 credits)

Prerequisite: CART 362; 48 credits completed in a Computation Arts program; or written permission of the Department. This advanced studio builds upon 3D modelling for animation, gaming, and spatial environments. Concurrent with the development of technical skill sets, students develop thematic projects with consideration given to industry standards and cultural products for public or private enterprise.

NOTE: Students who have received credit for CART 354 may not take this course for credit.

CART 444 Portfolio Studio (3 credits)

Prerequisite: 48 credits completed in a Computation Arts program; or written permission of the Department. This studio course leads graduating Computation Arts students through an analysis and synthesis of a personal body of work, self-promotional material, and a framework for a group exhibition. Discussions and assignments address the technical, formal, and conceptual elements in their work, and strategies for documentation and presentation. Students are also expected to locate their work in a social, cultural, and historical context. Various future options for Computation Arts graduates are discussed, including careers in art, entrepreneurship, design, research, and academia.

NOTE: Students who have received credit for this topic under a CART 498 number may not take this course for credit.

CART 451 Networked Media Studio (3 credits)

Prerequisite: CART 351; 48 credits completed in a Computation Arts program or written permission of the Department. This course introduces advanced topics in networked media, exploring the potential of connected technologies in multiple contexts, from their role in present-day life to potential future scenarios. Special attention is given to the design rhetorics and values commonly embedded in the web and internet-enabled devices and how students can work to subvert or repurpose these conventional approaches to design.

CART 453 The Digital Nomad (3 credits)

Prerequisite: 48 credits completed in a Computation Arts program; or written permission of the Department. This studio course is based on mobility or nomadic considerations in new media productions. Transportable and flexible equipment configurations are developed to support on-site performance events, projection, and multimedia installations.

NOTE: Students who have received credit for DFAR 453 may not take this course for credit.

CART 455 Professional Internship I (3 credits)

Prerequisite: 48 credits completed in a Computation Arts program; written permission of the Department. Students work in the industry for a period of nine to thirteen weeks to allow them to gain experience in design firms and multimedia companies. Internships approved for credit must be academically appropriate to the program.

NOTE: Students may count a maximum of six credits in professional internships towards their degree program.

CART 456 Professional Internship II (3 credits)

Prerequisite: 48 credits completed in a Computation Arts program; written permission of the Department. Students work in the industry for a period of nine to thirteen weeks to allow them to gain experience in design firms and multimedia companies. Internships approved for credit must be academically appropriate to the program.

NOTE: Students may count a maximum of six credits in professional internships towards their degree program.

CART 457 Independent Study I (3 credits)

Prerequisite: 48 credits completed in a Computation Arts program; written permission of the Department. This course provides an opportunity for a limited number of students to pursue advanced studies in computation arts research and creation project under the supervision of a full-time faculty member. A clearly defined written agreement between the student and the faculty supervisor is required before the independent study is approved.

NOTE: Students may count a maximum of nine credits in independent studies towards their degree program.

CART 458 Independent Study II (3 credits)

Prerequisite: 48 credits completed in a Computation Arts program; written permission of the Department. This course provides an opportunity for a limited number of students to pursue advanced studies in computation arts research and creation project under the supervision of a full-time faculty member. A clearly defined written agreement between the student and the faculty supervisor is required before the independent study is approved.

NOTE: Students may count a maximum of nine credits in independent studies towards their degree program.

CART 459 Independent Study III (3 credits)

Prerequisite: 48 credits completed in a Computation Arts program; written permission of the Department. This course provides an opportunity for a limited number of students to pursue advanced studies in computation arts research and creation project under the supervision of a full-time faculty member. A clearly defined written agreement between the student and the faculty supervisor is required before the independent study is approved.

NOTE: Students may count a maximum of nine credits in independent studies towards their degree program.

CART 460 Bending Bits: Advanced Topics in Digital Media (3 credits)

Prerequisite: CART 411 previously or concurrently; 48 credits completed in a Computation Arts program; or written permission of the Department. An advanced studio course examining the ways computation can be deeply integrated into students' creative

practices. Projects look at how computation can be used to transform interactivity into a semantic strategy, input/output into a dialogue between the user, the work, and the world, and data processing into means of aesthetic exploration.

NOTE: Students are expected to have solid skills in general-purpose programming before starting the class.

CART 461 *Tangible Media Studio* (3 credits)

Prerequisite: CART 360; 48 credits completed in a Computation Arts program or written permission of the Department. This studio course introduces advanced topics in tangible media and the related aesthetic and interaction design challenges and opportunities. Students work together on experimental projects that push the boundaries of physical interfaces and the expressivity of installation-based digital work.

CART 498 *Special Topics in Computation Arts* (3 credits)

Prerequisite: Enrolment in a Computation Arts program or written permission of the Department. An advanced course which provides an opportunity for the study of specialized aspects and applications in digital fine arts. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

CART 499 *Special Topics in Computation Arts* (6 credits)

Prerequisite: 48 credits in the Computation Arts program or written permission of the Department. An advanced course which provides an opportunity for the study of specialized aspects and applications in digital arts. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

NOTE: Students who have received credit for the same topic under DART 498, 499 or CART 498 may not take this course for credit.

Design:

DART 221 *Visual Communication in Context* (3 credits)

Prerequisite: Enrolment in the Major in Design or written permission of the Department. This studio course engages students in the study and application of graphic composition and visual communication. It focuses in particular on the elements and principles of layout and colour theory.

NOTE: Students who have received credit for DART 200 may not take this course for credit.

DART 261 *Introduction to Design Studies* (3 credits)

Prerequisite: Enrolment in the Major in Design or written permission of the Department. This lecture course examines key themes in the history and theory of visual communication and the built environment from industrialization to the present day. Emphasis is given to current as well as future implications of design practice. Research methods in the discipline are introduced to facilitate development of students' analytical and critical abilities, both oral and written.

NOTE: Students are required to take this course in the first year of the Design program.

NOTE: Students who have received credit for DART 260 may not take this course for credit.

DART 262 *Exploring Design Studies* (3 credits)

Prerequisite: DART 261; enrolment in the Major in Design; or written permission of the Department. This theory course introduces students to innovative and creative ways of thinking about design, and offers means of organizing their ideas effectively and convincingly. Referring to both historic and current examples of design theory and practice, coursework and assignments explore existing frameworks or models for design studies, enabling students to investigate critical aspects of visual communication and the built environment.

NOTE: Students who have received credit for DART 260 may not take this course for credit.

DART 263 *Design History and Sustainability* (3 credits)

Prerequisite: DART 221, 261; DART 291, 292 previously or concurrently; or written permission of the Department. This theory course offers students a reflective space to explore sustainable design theory and practice through historical artifacts, and thereby expand their intellectual engagement with key issues in past, present, and potential future approaches to design complexity and design for sustainability.

NOTE: Students who have received credit for this topic under a DART 298 number may not take this course for credit.

DART 280 *Investigations in Typographic Design* (3 credits)

Prerequisite: DART 221; DART 291, 292 previously or concurrently; or written permission of the Department. This studio course focuses on typographic design and explores the functional and expressive aspects of typography. Process-based assignments emphasize the principles of typography, information hierarchy, multiple-page content, and text-image relationships.

NOTE: Students who have received credit for DART 200 may not take this course for credit.

DART 291 *Design Process and the Materiality of Objects* (3 credits)

Prerequisite: DART 221, 261; or written permission of the Department. This studio course concentrates on the design process and provides students with communication strategies including sketching in perspective and technical drawing. Assigned projects address creativity, sustainable materials, and construction techniques.

NOTE: Students who have received credit for DART 210 or 290 may not take this course for credit.

DART 292 *Bio-Inspiration in the Design of Objects* (3 credits)

Prerequisite: DART 221, 261, 262 or 263, 291; DART 280 previously or concurrently; or written permission of the Department. This studio course advances the study of materials and construction methods. Assignments emphasize research and research methods specifically within the study of bionics. Students explore nature as inspiration to facilitate innovative and effective life cycles of designed objects.

NOTE: Students who have received credit for DART 210 or 290 may not take this course for credit.

DART 298 *Special Topics in Design Art* (3 credits)

Prerequisite: Enrolment in the Major in Design or written permission of the Department. This course provides an opportunity for the study of special issues in Design. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

DART 331 *Words in Space* (3 credits)

Prerequisite: DART 280; DART 391, 392 previously or concurrently; or written permission of the Department. This studio course focuses on type and image in the built environment. Issues of space, materiality, and legibility are examined within architectural and urban landscapes. Students engage in projects ranging from wayfinding and signage to exhibition design and installations.

NOTE: Students who have received credit for DART 300 may not take this course for credit.

DART 332 *Print Concepts and Processes* (3 credits)

Prerequisite: DART 221, 261, 262 or 263, 280; 24 credits in the Design Major; or written permission of the Department. This studio course focuses on the conceptualization, process, and production of printed projects. Assignments relate content and narrative to the material nature of printed matter, printing techniques, and the responsible use of resources.

DART 335 *Interpretive Public Spaces* (3 credits)

Prerequisite: DART 380; DART 391, 392 previously or concurrently; or written permission of the Department. This studio course develops strategies for interactions in the public sphere. The application of scenography, planning of space and the integration of content orients the student towards the design of museum installations, mobile exhibitions, and performative events.

DART 339 *Second Skin and Soft Wear* (3 credits)

Prerequisite: DART 380 or 381; DART 391, 392 previously or concurrently; or written permission of the Department. This studio course contextualizes the making of and the concepts relating to soft surfaces, objects, furniture, and sculptural forms. Students are also encouraged to explore the sensory interfaces between surface and structure in design by investigating alternative material use and new technologies for innovative textile design, electronics, and body wear.

DART 349 *Introduction to Web Design* (3 credits)

Prerequisite: 24 credits in the Major in Design or written permission of the Department. This studio course introduces students to such aspects of web design as graphic user interface; navigation and information hierarchies; the differences between screen and print; and user experience; and explores the challenges facing designers working in an online environment. Students create websites for multiple platforms and mobile devices, as well as experiment with innovative ways of organizing information.

NOTE: Students who have received credit for this topic under a DART 398 number may not take this course for credit.

DART 380 *3D Digital Concepts* (3 credits)

Prerequisite: DART 280; 24 credits in the Major in Design; or written permission of the Department. This computer lab course introduces students to computer-assisted 3D design concepts. Practical exercises advance technical skills and are combined with thematic proposals for virtual object representation. Scaled object production is encouraged in the final stages of the studio.

NOTE: Students who have received credit for DART 300 may not take this course for credit.

DART 381 *Digital Media and Moving Images* (3 credits)

Prerequisite: DART 280; 24 credits in the Major in Design; or written permission of the Department. In this studio course, students generate concepts, thematic proposals, storyboards, and narratives for audiovisual presentations and creative works with a focus on online or web applications. Students develop projects for motion graphics, kinetic typography, as well as audio components.

NOTE: Students who have received credit for DART 300 may not take this course for credit.

DART 391 *Socio-Cultural Environmental Research and Practice I* (3 credits)

Prerequisite: DART 221, 261, 262 or 263, 280, 291, 292; 24 credits in the Major in Design; or written permission of the Department. This studio course contextualizes the significance of research in the development of socio-cultural environmental design practice. Students work in collaboration to explore soft surface concepts and making. Workshops introduce textile and cloth explorations, patterning, sewing techniques, fabric printing, and body wear.

DART 392 *Socio-Cultural Environmental Research and Practice II* (3 credits)

Prerequisite: DART 261, 262 or 263, 291, 292, 391; 24 credits in the Major in Design; or written permission of the Department. This studio course further develops soft surface design and applications through specific sustainable projects and community initiatives. Students work in collaboration with different stakeholders in the research, conceptualization, construction, and analysis stages of project design.

DART 398 *Special Topics in Design* (3 credits)

Prerequisite: 24 credits in the Major in Design or written permission of the Department. This course provides an opportunity for the study of special issues in design art. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

DART 440 *Un.bound in Perfect Print* (3 credits)

Prerequisite: 48 credits in the Major in Design or written permission of the Department. This studio course focuses on producing a series of self-directed conceptual or thematic book works. Projects are informed by studies of the history, craft and cultural significance of limited edition publications, unbound/bound bookworks, *livres-objets* and zines.

NOTE: Students who have received credit for this topic under a DART 498 number may not take this course for credit.

DART 441 *The Culture of Images* (3 credits)

Prerequisite: DART 491 previously or concurrently; 48 credits in the Major in Design; or written permission of the Department. In this studio course students analyze the impact of images through the study of popular culture and the persuasiveness of advertising in image-saturated and information-dense societies. Projects address strategies for effective visual communication as catalysts towards transformative socio-cultural environments.

DART 442 *Scenarios for Typography* (3 credits)

Prerequisite: DART 491 previously or concurrently; 48 credits in the Major in Design; or written permission of the Department. This studio course engages students to explore the diversity of typographic expression within a visual and literary context. Assignments are designed to address the significance and complexity of words for persuasive messaging, multilingual information exchange, and typographic play in visual communication.

DART 444 *Portfolio Design* (3 credits)

Prerequisite: DART 491 previously or concurrently; 48 credits in the Major in Design; or written permission of the Department. In this studio course, students represent their design practice in a series of portfolio materials. Visual and written documentation are developed for print, digital media, and exhibition.

DART 445 *The Narrative Object* (3 credits)

Prerequisite: DART 380; DART 491 previously or concurrently; 48 credits in the Major in Design; or written permission of the Department. In this studio course, the mythic potential of objects as personal and cultural markers is considered in the context of everyday life. Students construct meaning through objects, responding to the potential for expression inherent in materials, structure, and form. The rigour of observation, analysis, and interpretation of object stimulates opportunities for multiple readings.

DART 446 *Studies in the Built Environment* (3 credits)

Prerequisite: DART 491 previously or concurrently; 48 credits in the Major in Design; or written permission of the Department. In this theory course, students explore physical space as a complex dynamic in which nature, architecture, things, and people continuously interact and influence each other. Students develop skills to explore such concepts as spatiality and materiality, to enhance their understanding of, and contributions to, the built environment.

DART 447 *The Future Life of Objects* (3 credits)

Prerequisite: DART 380; DART 491 previously or concurrently; 48 credits in the Major in Design; or written permission of the Department. This studio course encourages students to analyze the integration and impact of digital technologies in the production of three-dimensional objects and space design. Students examine current technologies and production and explore concepts for objects, enhancing the long-term value and use of objects within the built environment.

DART 448 *Nature-Inspired Environments* (3 credits)

Prerequisite: DART 380; DART 491 previously or concurrently; 48 credits in the Major in Design; or written permission of the Department. In this studio course, students examine natural systems to uncover design potential for the built environment. Students develop innovative approaches that advance sustainable design thinking through the study of intrinsic environmental geometries, behaviours, narratives, and life-cycle flows.

DART 449 *The Language of the Web* (3 credits)

Prerequisite: DART 349; 48 credits in the Major in Design or written permission of the Department. In this studio course, students develop online applications and innovative methods for organizing and disseminating information. Issues of interactivity, navigation, and open-source media are emphasized.

NOTE: Students who have received credit for DART 410 or 411 may not take this course for credit.

DART 450 *Web Intervention* (3 credits)

Prerequisite: DART 349; 48 credits in the Major in Design or written permission of the Department. In this studio course, students create socially engaged online interventions. Projects are informed by open-source culture, social media, and the effects of technological democratization.

NOTE: Students who have received credit for DART 410 or 411 may not take this course for credit.

DART 453 *Design and Community Engagement* (6 credits)

Prerequisite: 24 credits in the Major in Design; or 24 credits in a Major in Fine Arts; or enrolment in the Loyola College for Diversity and Sustainability's Minor in Diversity and the Contemporary World; or written permission of the Department. A special project-based studio that provides students the opportunities to dialogue with and engage with Montreal-based outreach programs, community centres and not-for-profit organizations. Concordia students apply their communication and technical skill sets to collaborate with community partners and participants on specific design projects.

NOTE: Students who have received credit for DART 481 or for this topic under a DART 498 number may not take this course for credit.

DART 455 *(also listed as CART 433)****Information Design*** (3 credits)

Prerequisite: 48 credits in the Major in Design or written permission of the Department. This studio course focuses on rhetoric, visualization of information, instructions and complex text-based content. Issues of communication, simplification and clarification of content, and information architecture are addressed through diagrams, maps, and visualization of statistics.

NOTE: Students who have received credit for CART 433 or for this topic under a CART 498 or DART 498 number may not take this course for credit.

DART 456 *Inter.Net.Works* (3 credits)

Prerequisite: DART 349; 48 credits in the Major in Design or written permission of the Department. In this studio course, students study how audiovisual information is received, perceived and utilized, with a focus on online identity through networked strategies. Modular and flexible frameworks are implemented so that communications/portfolios are sustainable, diverse and dynamic documents, which can be expanded, revised and abbreviated for a multi-sensory experience via computers, mobile devices or as printable documents.

NOTE: Students who have received credit for DART 444 or for this topic under a DART 498 number may not take this course for credit.

DART 461 *Independent Study I* (3 credits)

Prerequisite: 48 credits in the Major in Design and written permission of the Department. This course provides an opportunity for a limited number of students to pursue advanced studies in a design research and creation project under the supervision of a full-time faculty member. A clearly defined written agreement between the student and the faculty supervisor is required before the independent study is approved.

NOTE: Students may count a maximum of nine credits in independent studies towards their degree program.

DART 462 *Independent Study II* (3 credits)

Prerequisite: 48 credits in the Major in Design and written permission of the Department. This course provides an opportunity for a limited number of students to pursue advanced studies in a design research and creation project under the supervision of a full-time faculty member. A clearly defined written agreement between the student and the faculty supervisor is required before the independent study is approved.

NOTE: Students may count a maximum of nine credits in independent studies towards their degree program.

DART 463 *Independent Study III* (3 credits)

Prerequisite: 48 credits in the Major in Design and written permission of the Department. This course provides an opportunity for a limited number of students to pursue advanced studies in a design research and creation project under the supervision of a full-time faculty member. A clearly defined written agreement between the student and the faculty supervisor is required before the independent study is approved.

NOTE: Students may count a maximum of nine credits in independent studies towards their degree program.

DART 471 *Professional Internship I* (3 credits)

Prerequisite: 48 credits in the Major in Design and written permission of the Department. This course provides an opportunity for a limited number of students to further develop their design skill sets as an intern in a design firm or cultural organization such as a museum or graphic and industrial design association. A clearly defined written agreement between the student intern, the employer, and the full-time faculty supervisor is required before the internship is approved.

NOTE: Students may count a maximum of six credits in professional internships towards their degree program.

DART 472 *Professional Internship II* (3 credits)

Prerequisite: 48 credits in the Major in Design and written permission of the Department. This course provides an opportunity for a limited number of students to further develop their design skill sets as an intern in a design firm or cultural organization such as a museum or graphic and industrial design association. A clearly defined written agreement between the student intern, the employer, and the full-time faculty supervisor is required before the internship is approved.

NOTE: Students may count a maximum of six credits in professional internships towards their degree program.

DART 491 *Discursive Design Research I* (3 credits)

Prerequisite: Final-year* standing in the Major in Design; or written permission of the Department. This core theoretical course combines lectures and discussions, emphasizing the contextual and societal implications of the design process from conception to

production. Multidisciplinary approaches to design research and methodology allow students to advance the discourse of their own emerging design ethic and aesthetic.

**Fewer than 33 credits remaining in degree program.*

NOTE: Students who have received credit for DART 400 or 490 may not take this course for credit.

DART 492 *Discursive Design Research II* (3 credits)

Prerequisite: DART 391, 392, 491; 48 credits in the Major in Design; or written permission of the Department. This core course explores the interstices between visual culture, material culture, and related theoretical discourses as disciplines which profoundly influence the design process. Particular attention is devoted to multidisciplinary engagement as applied to individual design scenarios. This course is a continuation of DART 491.

NOTE: Students who have received credit for DART 400 or 490 may not take this course for credit.

DART 493 *Post-Graduation Strategies in Design* (3 credits)

Prerequisite: DART 491 previously or concurrently; 48 credits in the Major in Design or written permission of the Department. In this seminar course, students have the opportunity to explore subject matter related to both professional practice and graduate studies. Topics related to the former include eco-focused business or sustainable business models, eco-conscious design practice, time-planning strategies, intellectual property (copyrights, patents), funding models and business start-ups. Topics related to potential graduate studies include grant writing, selection of graduate programs, and research project proposals.

DART 498 *Special Topics in Design* (3 credits)

Prerequisite: 48 credits in the Major in Design or written permission of the Department. A course for advanced students which provides an opportunity for the study of special issues in design art. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

DART 499 *Special Topics in Design* (6 credits)

Prerequisite: 48 credits in the Major in Design or written permission of the Department. A course for advanced students which provides an opportunity for the study of special issues in design. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

NOTE: Students who have received credit for the same topic under CART 498, 499 or DART 498 may not take this course for credit.

Faculty*Chair*

MARK CORWIN, DMA *University of Wisconsin-Madison*; Professor

Professors

KEVIN AUSTIN, MMA *McGill University*

SANDEEP BHAGWATI, Kuenstlerische Reifeprüfung *Musikhochschule Munich*, CURSUS *IRCAM (Paris)*

RICARDO DAL FARRA, PhD *Université du Québec à Montréal*

Associate Professors

CHRISTINE BECKETT, PhD *McGill University*

CHARLES ELLISON, MA *Indiana University*

ELDAD TSABARY, DMA *Boston University*

Assistant Professor

JOSHUA RAGER, MA *McGill University*

Lecturer

GEORGES DIMITROV, DMus *University of Montreal*

For the complete list of faculty members, please consult the Department website.

Location*Sir George Williams Campus*

GM Building, Room: 500-01

Tel.: 514-848-2424, ext. 4555/4559

Fax: 514-848-3155

Email: music@concordia.ca

Website: concordia.ca/finearts/music

Department Objectives

The Mission of the Department of Music is to develop musicians, to support musical activities through teaching, research and performances, and to foster the appreciation of the value of music and fine arts in society.

The Department is committed to the development of musicians through options and opportunities found within the multidisciplinary context of the Faculty of Fine Arts through generalized and specialized education.

Areas of study include theory, history, instrumental and vocal studies, including ensembles and private study, composition, jazz, electroacoustics/recording, and music technology.

Academic scholarship, research, and creativity enhance faculty members' teaching which furthers the Department's involvement in national and international artistic and scholarly communities.

Programs

Students are responsible for fulfilling their particular degree requirements; hence, the following sequences must be read in conjunction with §81.20.

The superscript indicates credit value.

SPECIALIZATIONS IN MUSIC

The Faculty of Fine Arts offers five specialization programs in Music. Students applying for entrance to the Specializations in Music Performance or Music Composition are accepted into the Major in Music. Upon completion of 30 credits, students may apply for transfer into one of those two specializations. Students applying for entrance to the Specializations in Jazz Studies, Electroacoustic Creative Practices or Electroacoustic Recording Arts may enter directly in their first year. Acceptance into a specialization is based on the student's general academic performance in all courses, but especially in the courses relevant to their specialization.

- 66 BFA Specialization in Jazz Studies**
- 6 JAZZ 200⁶ or, if exempt, Department of Music electives
 - 9 JAZZ 209³, 210³, 311³
 - 9 JAZZ 252³, 351³, 352³
 - 6 Chosen from JPER 223³, 224³, 225³, 323³, 324³, 325³
 - 3 JPER 225³ or MPER 233³ or MPER 234³
 - 6 JPER 251³, 252³
 - 3 JAZZ 400³
 - 6 JHIS 314³; 3 credits JHIS electives
 - 12 Chosen from JAZZ, JHIS, and JPER courses
 - 6 Department of Music electives, chosen in consultation with a Music advisor
- 66 BFA Specialization in Music Performance**
- 21 MUSI 211³, 212³, 251³, 252³, 311³, 351³, 352³
 - 3 Chosen from JPER 225³, MPER 233³, 234³
 - 6 MPER 251³, 252³
 - 6 MPER 351³ and 352³ or MPER 390⁶
 - 6 MPER 490⁶
 - 6 MHIS 203³, 204³ or, if exempt, MHIS electives
 - 6 MHIS electives, which may include MUSI 421³
 - 12 Chosen from MPER 201³, 223³, 298³, 301³, 321³, 322³, 323³, 361³, 398³, 401³, 421³, 423³, 498³
- 66 BFA Specialization in Music Composition**
- 24 MUSI 211³, 212³, 251³, 252³, 311³, 351³, 352³, 353³
 - 3 Chosen from JPER 225³; MPER 201³, 223³, 233³, 234³
 - 6 MPER 251³, 252³
 - 3 Chosen from MPER 361³; MUSI 322³, 421³
 - 6 MHIS 203³, 204³ or, if exempt, MHIS electives
 - 3 Chosen from MHIS courses at the 300 and 400 level
 - 6 MUSI 366³, 367³
 - 12 Chosen from MUSI 263³, 363³, 364³, 365³, 463³, 464³, 465³, 466³, including a minimum of 6 credits at the 400 level
 - 3 MUSI 402³
- 60 BFA Specialization in Electroacoustic Creative Practices**
- 12 EAST 200⁶, 211³; MHIS 241³
 - 6 EAST 251³, 252³
 - 18 EAST 300⁶, 305⁶, 310⁶
 - 6 EAST 362³, 363³
 - 12 EAST 406³, 407³, 461³, 462³
 - 6 EAST 481³, 482³, or electives chosen from EAST
- 60 BFA Specialization in Electroacoustic Recording Arts**
- 18 EAST 200⁶, 205⁶, 211³; MHIS 241³
 - 18 EAST 300⁶, 305⁶, 310⁶
 - 18 EAST 351³, 352³, 451³, 452³, 465³, 466³
 - 6 EAST 481³, 482³, or electives chosen from EAST
- 54 BFA Major in Electroacoustic Studies**
- 9 EAST 200⁶, 211³
 - 6 EAST 251³, 252³
 - 12 EAST 300⁶, 310⁶
 - 3 MHIS 241³
 - 6 EAST 205⁶
 - 6 EAST 305⁶
 - 9 Chosen from EAST electives, including a minimum of 6 credits at the 400 level
 - 3 Department of Music electives
- 54 BFA Major in Music**
- 15 MUSI 211³, 212³, 251³, 252³, 351³
 - 3 Chosen from JPER 225³; MPER 201³, 223³, 233³, 234³
 - 3 Chosen from MPER 361³; MUSI 322³, MUSI 421³
 - 6 MHIS 203³, 204³ or, if exempt, MHIS electives

- 3 Chosen from MHIS courses at the 300 and 400 level
3 MUSI 402³
21 Department of Music electives
- 24 **Minor in Electroacoustic Studies**
6 EAST 200⁶
12 EAST 205⁶, 305⁶
6 Chosen from EAST electives
- 24 **Minor in Music**
9 MUSI 211³, 251³ and 252³ or, if exempt, Music electives selected in consultation with a Music advisor
15 Music electives chosen in consultation with a Music advisor

81.100.1 Admission to Programs in Music

In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to Music programs. All applicants to an Electroacoustic program, including the minor, major or specializations, must submit a *portfolio* of their own work. All applicants to the Major in Music and the Specialization in Jazz Studies must complete an *audition* and *Theory and Ear-Training Placement Tests*.

For more information concerning these additional requirements and submission deadline dates, please visit the Department of Music website.

81.100.2 Admission to Courses in Music for Non-Music Students

Specific procedures must be followed by all non-Music majors wishing to register in the Department of Music.

- a) Not all courses are available to non-Music students. Please consult the Department of Music for policy and accessibility of courses.
- b) Students who wish to register for courses which have a theory prerequisite, given availability, must write the Theory placement test. This is done in the Department of Music at least two weeks prior to the registration appointment date.
- c) Students who wish to sing or play in an ensemble must contact the Department of Music for information concerning audition and registration for Music Performance courses.

Courses

For specific information regarding entrance to courses in the Department of Music please see above.

Electroacoustic Studies:

EAST 200 ASA and Aural Skills I (6 credits)

Prerequisite: Enrolment in an Electroacoustic program. Based upon concepts articulated in Auditory Scene Analysis (ASA), this intensive fundamental ear-training course is integrated with electroacoustics and music technology through composition. It offers a focused study of sound, acoustic and psychoacoustic, designed to develop the inner and outer ear. Direct practical application studies in sonic and musical dictation and creation fosters expanded and refined hearing.

NOTE: Students who have received credit for this topic under an EAMT 399 number may not take this course for credit.

EAST 203 Digital Audio Editing (3 credits)

An introduction to the study and practice of the Acousmatic and Sound Art tradition through the use of the computer as a manipulation platform and creative environment for the exploration of sound. This course includes historical and aesthetic aspects of the art. Classic and contemporary electroacoustic techniques are explored as are applications of electroacoustics in popular music. Related topics in acoustics, psychoacoustics, hearing, and audio technology are covered in order to provide a background for effective work in the digital environment.

NOTE: Students who have received credit for EAMT 203, or for this topic under an EAMT 398 or 399 number, may not take this course for credit.

NOTE: Students in a major, minor, or specialization program in the Department of Music may not apply this course for credit in a 90-credit degree program.

EAST 205 Electroacoustics I (6 credits)

Prerequisite: Enrolment in an Electroacoustic program. A seminar/workshop in electroacoustics introducing composition through analysis and directed studies involving recording, editing, processing of analog and digital signals, a full introduction to live and mixed electroacoustic composition, and modular analog synthesis, all in a multi-channel environment.

NOTE: Students are required to bear the cost of materials.

NOTE: Students who have received credit for EAMT 205 may not take this course for credit.

NOTE: Students in the Specialization in Electroacoustic Creative Practices may not apply this course to their concentration.

EAST 211 *Theory/MIDIstration I* (3 credits)

Prerequisite: Enrolment in an Electroacoustic program. An intensive course of music theory in practice, integrating electroacoustics and music technology through composition. Foundation music skills development takes place in a creative and technological environment using software sequencers (MIDI and audio), and music notation programs. Fundamental music training is provided through exercises and composition using instrument sampling software. References are drawn from contemporary and cross-cultural practices.

NOTE: Students who have received credit for this topic under an EAMT 398 number may not take this course for credit.

EAST 231 *Sound For Artists* (3 credits)

This course is an introduction to the study and creation of sound for artistic contexts. It includes historical and aesthetic aspects of sound utilizing current computer and studio-based technologies. Basics of sound recording, editing, and processing are covered, as well as creative applications in installation and performance art, electronic arts, and screen-based practices. Spoken word, music (electronically/digitally generated), everyday sound and mechanically produced sounds are explored. Related topics in acoustics, hearing, and the theoretical concepts central to sound art are also introduced, in order to provide a background for effective and informed work with sound in a student's art practice.

NOTE: Students who have received credit for this topic under an EAMT 298 number may not take this course for credit.

NOTE: Students in the Electroacoustic Minor, Major, or Specialization programs may not apply this course for credit to their concentration.

EAST 251 *Introduction to Recording I* (3 credits)

Prerequisite: Enrolment in an Electroacoustic program. This introductory course provides an overview of analog and digital audio technology with attention to its innovations, history, and effect on the practice of sound recording and involves a classroom-based study of issues related to sound recording.

NOTE: Students who have received credit for this topic under an EAMT 298 number may not take this course for credit.

NOTE: Students in the Specialization in Electroacoustic Recording Arts may not apply this course for credit to their concentration.

EAST 252 *Introduction to Recording II* (3 credits)

Prerequisite: EAST 251. A continuation of EAST 251.

NOTE: Students who have received credit for this topic under an EAMT 298 number may not take this course for credit.

NOTE: Students in the Specialization in Electroacoustic Recording Arts may not apply this course for credit to their concentration.

EAST 298 *Special Topics in Electroacoustics* (3 credits)

Prerequisite: Written permission of the Department of Music. A study of selected topics in electroacoustics.

EAST 299 *Special Topics in Electroacoustics* (6 credits)

Prerequisite: Written permission of the Department of Music. A study of selected topics in electroacoustics.

EAST 300 *ASA and Aural Skills II* (6 credits)

Prerequisite: EAST 200. This course is a continuation of EAST 200 based upon the principles of auditory scene analysis and critical listening. It extends the development of fundamental aural skills critical to students in electroacoustics. The course integrates electroacoustic analysis with music technology through detailed study of representative electroacoustic works. A number of digital studio techniques, such as envelopes, EQ, compression, reverb, and time stretching/pitch shifting, are also studied in this context.

NOTE: Students who have received credit for this topic under an EAMT 399 number may not take this course for credit.

EAST 305 *Electroacoustics II* (6 credits)

Prerequisite: EAST 205 or enrolment in the Specialization in Electroacoustic Creative Practices. A seminar/workshop in electroacoustics with continued work in fixed media, live, mixed and interdisciplinary composition, and sound design.

NOTE: Students are required to bear the cost of materials.

NOTE: Students who have received credit for EAMT 305 may not take this course for credit.

EAST 310 *Theory/MIDIstration II* (6 credits)

Prerequisite: EAST 211. A continuation of the foundation musical skills development of EAST 211.

NOTE: Students who have received credit for this topic under an EAMT 399 number may not take this course for credit.

EAST 331 *Sound Art Practices* (6 credits)

An intermediate-level sound art theory and production course focusing on individual or collaborative sound projects for artistic contexts such as installation and performance art, electronic arts, and screen-based practices. This course also addresses relevant reading and theoretical background.

NOTE: Students who have received credit for this topic under an EAMT 399 number may not take this course for credit.

NOTE: Students in the Electroacoustic Minor, Major, or Specialization programs may not apply this course for credit to their concentration.

EAST 351 *Intermediate Sound Recording I* (3 credits)

Prerequisite: EAST 252. An intensive seminar/workshop studying the techniques used to record and edit music in settings ranging from live concert performances to studio session recordings. Hands-on experience and aural perception is developed during

ensemble rehearsal and recording sessions. Emphasis is placed on production topics such as multi-track recording, microphone placement systems, and audio processes. An understanding is developed of the language of music through basic music appreciation skills as they relate to recording and editing of music.

NOTE: Students who have received credit for this topic under an EAMT 398 number may not take this course for credit.

EAST 352 *Intermediate Sound Recording II* (3 credits)

Prerequisite: EAST 351. A continuation of EAST 351.

NOTE: Students who have received credit for this topic under an EAMT 398 number may not take this course for credit.

EAST 361 *Current Sound Practice Seminar* (3 credits)

Prerequisite: EAST 305 previously or concurrently. Topics vary from year to year, but may include such elements as sound design, glitch, noise, microsound, plunderphonics, collage, and game sound.

NOTE: Students who have received credit for this topic under an EAMT 398 or 498 number may not take this course for credit.

EAST 362 *Virtual Modular Synthesis* (3 credits)

Prerequisite: EAST 305 previously or concurrently. A detailed study of selected digital synthesis techniques.

NOTE: Students who have received credit for this topic under an EAMT 398 number may not take this course for credit.

EAST 363 *Concordia Laptop Orchestra I (CLOrk)* (3 credits)

Prerequisite: EAST 305 previously or concurrently. The Concordia Laptop Orchestra specializes in networked and interdisciplinary creation and performance. It performs physically and telematically with ensembles and soloists worldwide.

NOTE: Students who have received credit for this topic under an EAST 398 number may not take this course for credit.

EAST 365 *Multi-channel Composition: Sound and Spaces* (3 credits)

Prerequisite: EAST 305 previously or concurrently. A seminar workshop on composition for four or more channels. The topics may include fixed media presentations, sound projection techniques, and multi-channel installation art. Topics vary from year to year.

NOTE: Students who have received credit for this topic under an EAMT 398 or 498 number may not take this course for credit.

EAST 398 *Special Topics in Electroacoustics* (3 credits)

Prerequisite: Written permission of the Department of Music. A study of a selected area not available in other courses in electroacoustics.

EAST 399 *Special Topics in Electroacoustics* (6 credits)

Prerequisite: Written permission of the Department of Music. A study of a selected area not available in other courses in electroacoustics.

EAST 406 *Electroacoustic Composition Seminar/Workshop I* (3 credits)

Prerequisite: EAST 305. A seminar/workshop with a focus on composition for advanced students in electroacoustics. Students are encouraged to include an interdisciplinary component in their final project.

NOTE: Students are required to bear the cost of materials.

NOTE: Students who have received credit for EAMT 406 may not take this course for credit.

EAST 407 *Electroacoustic Composition Seminar/Workshop II* (3 credits)

Prerequisite: EAST 406. A continuation of EAST 406.

NOTE: Students are required to bear the cost of materials.

NOTE: Students who have received credit for EAMT 407 may not take this course for credit.

EAST 451 *Advanced Recording I* (3 credits)

Prerequisite: EAST 352. A continuation of EAST 352. Emphasis is on advanced independent projects.

NOTE: Students who have received credit for EAMT 451 may not take this course for credit.

EAST 452 *Advanced Recording II* (3 credits)

Prerequisite: EAST 451. A continuation of EAST 451.

NOTE: Students who have received credit for EAMT 452 may not take this course for credit.

EAST 461 *Capstone Project Seminar I* (3 credits)

Prerequisite: EAST 406; 60 credits completed. An advanced, open seminar/workshop environment where students are encouraged to work on individual projects, and in a collaborative, cross-disciplinary or multicultural fashion.

NOTE: Students who have received credit for this topic under an EAMT 498 number may not take this course for credit.

EAST 462 *Capstone Project Seminar II* (3 credits)

Prerequisite: EAST 461. A continuation of EAST 461.

NOTE: Students who have received credit for this topic under an EAMT 498 number may not take this course for credit.

EAST 463 *Concordia Laptop Orchestra II (CLOrk)* (3 credits)

Prerequisite: EAST 363. A continuation of EAST 363.

NOTE: Students who have received credit for this topic under an EAST 398 number may not take this course for credit.

EAST 465 Capstone Recording Project I (3 credits)

Prerequisite: EAST 452 previously or concurrently. An open workshop where students engage in intensive studies in applied recording arts. Students are expected to collaborate with other musicians from the Department of Music.

NOTE: Students who have received credit for EAST 460 may not take this course for credit.

EAST 466 Capstone Recording Project II (3 credits)

Prerequisite: EAST 465; 60 credits completed. An open workshop where students engage in intensive studies in applied recording arts. Students are expected to collaborate with other musicians from the Department of Music.

NOTE: Students who have received credit for EAST 460 may not take this course for credit.

EAST 471* Independent Study I (3 credits)

Prerequisite: 60 credits completed and written permission of the Department of Music. A student-designed course of study, approved by an advisor, that focuses on an area of electroacoustics.

**Students may count a maximum of nine credits in independent studies towards their degree program.*

EAST 472* Independent Study II (3 credits)

Prerequisite: EAST 471 and written permission of the Department of Music.

**Students may count a maximum of nine credits in independent studies towards their degree program.*

EAST 481 Supervised Internship I (3 credits)

Prerequisite: Enrolment in an Electroacoustic program; 60 credits completed; written permission of the Department of Music. This course provides students with the opportunity to obtain credit for sound-focused work completed for a recognized organization, or a sound-focused project under the joint supervision of a qualified professional and a full-time faculty member.

EAST 482 Supervised Internship II (3 credits)

Prerequisite: EAST 481 and written permission of the Department of Music. This course provides students with the opportunity to obtain credit for sound-focused work completed for a recognized organization, or a sound-focused project under the joint supervision of a qualified professional and a full-time faculty member.

EAST 498 Special Topics in Electroacoustics (3 credits)

Prerequisite: Written permission of the Department of Music. An advanced study of a selected area not available in other courses in electroacoustics.

EAST 499 Special Topics in Electroacoustics (6 credits)

Prerequisite: Written permission of the Department of Music. An advanced study of a selected area not available in other courses in electroacoustics.

Jazz Studies:**JAZZ 200 The Language of Jazz** (6 credits)

Prerequisite: Enrolment in the Specialization in Jazz Studies or written permission of the Department of Music. An introduction to the syntax, style, aesthetics, and sociology of jazz. The complete spectrum of styles and artists serves as the basis of materials for the course. Listening, readings/discussion, aural transcription, performance analysis, repertoire development, instrumental or vocal performance and film study constitute the core work.

JAZZ 209 Jazz Aural Perception I (3 credits)

Prerequisite: Enrolment in the Specialization in Jazz Studies or written permission of the Department of Music. A course designed to develop the jazz musical ear at an intermediate level. Classroom and laboratory.

NOTE: Students who have received credit for this topic under INMS 209 (in jazz sections), 499, or MUSI 210 may not take this course for credit.

JAZZ 210 Jazz Aural Perception II (3 credits)

Prerequisite: JAZZ 209 or equivalent. A continuation of the development of the jazz musical ear. Classroom and laboratory.

NOTE: Students who have received credit for this topic under INMS 210 or 310 (in jazz sections) may not take this course for credit.

JAZZ 251 Rhythm and Melody (3 credits)

Prerequisite: Enrolment in the Specialization in Jazz Studies or written permission of the Department of Music. An introduction to the elements of jazz rhythmic and melodic construction.

NOTE: Students who have received credit for this topic under INMS 250, 251, 499 or MUSI 210 (in jazz sections) may not take this course for credit.

JAZZ 252 Jazz Harmony I (3 credits)

Prerequisite: Enrolment in the Specialization in Jazz Studies or written permission of the Department of Music. An introduction to the basic and intermediate principles of jazz harmonic progressions and voice-leading.

NOTE: Students who have received credit for this topic under JAZZ 301, INMS 250, 252, 499 or MUSI 210 (in jazz sections) may not take this course for credit.

JAZZ 298 *Special Topics in Jazz Studies* (3 credits)

Prerequisite: Written permission of the Department of Music. A study of a selected area not available in other courses in jazz studies.

JAZZ 303 *Jazz Arranging I* (3 credits)

Prerequisite: JAZZ 251, 252. The study of writing arrangements based upon compositions from the American popular song and jazz repertoires for small and medium-size jazz ensembles.

NOTE: Students who have received credit for INMS 332 or JAZZ 302 may not take this course for credit.

JAZZ 304 *Jazz Arranging II* (3 credits)

Prerequisite: JAZZ 303. Building on JAZZ 303, the study of writing arrangements for large ensembles including original compositions and jazz repertoire.

NOTE: Students who have received credit for INMS 431 or JAZZ 401 may not take this course for credit.

JAZZ 305 *Jazz Composition I* (6 credits)

Prerequisite: JAZZ 252. A seminar/workshop in jazz composition. After an examination of components of composition from the jazz repertoire, students write original music based on the blues, American popular song forms, and such idioms as those in the style of bebop, bossa nova, ragtime, and modal jazz.

JAZZ 311 *Jazz Aural Perception III* (3 credits)

Prerequisite: JAZZ 210 or equivalent. A continuation of jazz aural perception development at an advanced level. Classroom and laboratory.

NOTE: Students who have received credit for INMS 310 or 311 may not take this course for credit.

JAZZ 351 *Jazz Harmony II* (3 credits)

Prerequisite: JAZZ 252. A continuation of the study of harmonic progressions and voice-leading with reference to a variety of styles and time periods, studied through analysis and composition.

NOTE: Students who have received credit for this topic under INMS 352 (in jazz sections) may not take this course for credit.

JAZZ 352 *Jazz Analysis* (3 credits)

Prerequisite: JAZZ 351. An introduction to analytical techniques relating to form, motivic development, and texture, with reference to a variety of styles and time periods.

NOTE: Students who have received credit for INMS 351 (in jazz sections) may not take this course for credit.

JAZZ 398 *Special Topics in Jazz Studies* (3 credits)

Prerequisite: JAZZ 200 or exemption, and written permission of the Department of Music. A seminar/workshop in an area of music which provides an opportunity for the study of specialized aspects of jazz outside the scope of existing courses.

JAZZ 399 *Special Topics in Jazz Studies* (6 credits)

Prerequisite: JAZZ 200 or exemption, and written permission of the Department of Music. A seminar/workshop in an area of music which provides an opportunity for the study of specialized aspects of jazz outside the scope of existing courses.

JAZZ 400 *Jazz Studies Capstone Seminar and Project* (3 credits)

Prerequisite: 60 credits completed in the BFA Specialization in Jazz Studies. Students design, implement and present advanced individual or collaborative projects in any area of jazz studies.

JAZZ 405 *Jazz Composition II* (6 credits)

Prerequisite: JAZZ 305. A continuation of JAZZ 305.

NOTE: Students who have received credit for CMUS 430 may not take this course for credit.

JAZZ 471 *Independent Study I*** (3 credits)

Prerequisite: Second-year standing*, and written permission of the Department of Music. A student-designed course of study, approved by an advisor, that focuses on an area of jazz studies.

*66 or fewer credits remaining in degree program.

**Students may count a maximum of nine credits in independent studies towards their degree program.

JAZZ 472 *Independent Study II*** (3 credits)

Prerequisite: JAZZ 471, second-year standing*, and written permission of the Department of Music. A student-designed course of study, approved by an advisor, that focuses on an area of jazz studies.

*66 or fewer credits remaining in degree program.

**Students may count a maximum of nine credits in independent studies towards their degree program.

JAZZ 481 *Supervised Internship I* (3 credits)

Prerequisite: Enrolment in the Specialization in Jazz Studies; 60 credits completed; written permission of the Department of Music. This course provides students with the opportunity to obtain credit for work completed for a recognized jazz-related organization, or a project under the joint supervision of a qualified professional and a full-time faculty member.

JAZZ 482 *Supervised Internship II* (3 credits)

Prerequisite: JAZZ 481; written permission of the Department of Music. This course provides students with the opportunity to obtain credit for work completed for a recognized jazz-related organization, or a project under the joint supervision of a qualified professional and a full-time faculty member.

JAZZ 498 *Special Topics in Jazz Studies* (3 credits)

Prerequisite: JAZZ 200 or exemption, and written permission of the Department of Music. An advanced seminar/workshop in an area of music which provides an opportunity for the study of specialized aspects of jazz outside the scope of existing courses.

JAZZ 499 *Special Topics in Jazz Studies* (6 credits)

Prerequisite: JAZZ 200 or exemption, and written permission of the Department of Music. An advanced seminar/workshop in an area of music which provides an opportunity for the study of specialized aspects of jazz outside the scope of existing courses.

Jazz History:**JHIS 314 *Jazz History*** (3 credits)

A study of the historical developments and the personalities that contributed to the evolution of jazz styles.

NOTE: Students who have received credit for MHIS 314 may not take this course for credit.

JHIS 351 *The Ellington Era* (3 credits)

Prerequisite: JHIS 314 or MHIS 314. The study of the life and music of Edward Kennedy Duke Ellington.

NOTE: Students who have received credit for MHIS 312 or 351 may not take this course for credit.

JHIS 352 *American Popular Song* (3 credits)

Prerequisite: JHIS 314 or MHIS 314. A survey of the composers, lyricists, and performers of American popular song from 1900 to 1950 through the study of works by masters of the genre such as Gershwin, Porter, Berlin, and Arlen.

NOTE: Students who have received credit for MHIS 313 or 352 may not take this course for credit.

JHIS 353 *The Modern Jazz Orchestra* (3 credits)

Prerequisite: JHIS 314 or MHIS 314. A survey of big band jazz music from 1943 to the present, beginning with Duke Ellington's epic composition "Black, Brown and Beige."

NOTE: Students who have received credit for MHIS 316 or 353 may not take this course for credit.

JHIS 354 *The Music of Charles Mingus* (3 credits)

Prerequisite: JHIS 314 or MHIS 314. The study of the life and music of Charles Mingus.

NOTE: Students who have received credit for MHIS 317 or 354 may not take this course for credit.

JHIS 398 *Special Topics in Jazz History* (3 credits)

Prerequisite: Written permission of the Department of Music. This course provides an opportunity for the study of special topics in jazz history.

JHIS 471 *Jazz History Independent Study** (3 credits)

Prerequisite: Written permission of the Department of Music. Students undertake independent research in jazz history under the supervision of a full-time faculty member.

**Students may count a maximum of nine credits in independent studies towards their degree program.*

JHIS 498 *Special Topics in Jazz History* (3 credits)

Prerequisite: Written permission of the Department of Music. This course provides an opportunity for the study of special topics in jazz history.

Jazz Performance:**JPER 223 *Big Band I*** (3 credits)

Prerequisite: JAZZ 200 previously or concurrently; permission of the Department of Music upon successful audition.

A performance course in which students participate in the Big Band Jazz Ensemble.

NOTE: This is a full-year course.

NOTE: Students are required to participate in public performances.

NOTE: Students who have received credit for JPER 220 or 221 may not take this course for credit.

JPER 224 *Eclectic Ensemble I* (3 credits)

Prerequisite: JAZZ 200 previously or concurrently; permission of the Department of Music upon successful audition. A performance course in which students participate in the Eclectic Ensemble.

NOTE: This is a full-year course.

NOTE: Students are required to participate in public performances.

NOTE: Students who have received credit for JPER 220 or 221 may not take this course for credit.

JPER 225 *Jazz Choir I* (3 credits)

Prerequisite: JAZZ 200 previously or concurrently; permission of the Department of Music upon successful audition.
A performance course in which students participate in the Jazz Choir.

NOTE: This is a full-year course.

NOTE: Students are required to participate in public performances.

NOTE: Students who have received credit for JPER 220 or 221 may not take this course for credit.

JPER 251 *Jazz Private Study I* (3 credits)

Prerequisite: Enrolment in the Specialization in Jazz Studies and written permission of the Department of Music. This course offers individual vocal or instrumental instruction in jazz performance.

NOTE: Students are required to assume part of the cost of private lessons.

NOTE: Students who have received credit for MPER 251 or MUSI 231 may not take this course for credit.

JPER 252 *Jazz Private Study II* (3 credits)

Prerequisite: JPER 251 and written permission of the Department of Music. A continuation of JPER 251.

NOTE: Students who have received credit for MPER 252 or MUSI 232 may not take this course for credit.

JPER 298 *Special Topics in Jazz Performance* (3 credits)

Prerequisite: Written permission of the Department of Music. A study of a selected area not available in other courses in jazz performance.

JPER 323 *Big Band II* (3 credits)

Prerequisite: JPER 223; permission of the Department of Music upon successful audition. A continuation of JPER 223.

NOTE: This is a full-year course.

NOTE: Students are required to participate in public performances.

NOTE: Students who have received credit for JPER 321 may not take this course for credit.

JPER 324 *Eclectic Ensemble II* (3 credits)

Prerequisite: JPER 224; permission of the Department of Music upon successful audition. A continuation of JPER 224.

NOTE: This is a full-year course.

NOTE: Students are required to participate in public performances.

NOTE: Students who have received credit for JPER 321 may not take this course for credit.

JPER 325 *Jazz Choir II* (3 credits)

Prerequisite: JPER 225; permission of the Department of Music upon successful audition. A continuation of JPER 225.

NOTE: This is a full-year course.

NOTE: Students are required to participate in public performances.

NOTE: Students who have received credit for JPER 321 may not take this course for credit.

JPER 330 *Jazz Improvisation I* (6 credits)

Prerequisite: JAZZ 200; JAZZ 252 previously or concurrently. A performance-analysis course that examines the craft of jazz improvisation. A broad spectrum of jazz improvisational styles is examined. Participation in public performance is required.

NOTE: Students who have received credit for MPER 330 may not take this course for credit.

JPER 341 *Jazz Vocal Repertoire I* (3 credits)

Prerequisite: JAZZ 200; JPER 251, MUSI 231 or MPER 251 (voice) previously or concurrently. A study of jazz vocal technique through performance of representative compositions and arrangements, and study of professional recordings demonstrating various jazz vocal styles. Special focus is on performance styles and building audience-performer relationships. Students are expected to participate in public performances.

JPER 351 *Jazz Private Study III* (3 credits)

Prerequisite: JPER 252; second-year standing in the Specialization in Jazz Studies*; written permission of the Department of Music. A continuation of JPER 252.

NOTE: Students are required to assume part of the cost of private lessons.

NOTE: Students who have received credit for MPER 351, 390 or MUSI 331 may not take this course for credit.

*66 or fewer credits remaining in degree program.

JPER 352 *Jazz Private Study IV* (3 credits)

Prerequisite: JPER 351 and written permission of the Department of Music. A continuation of JPER 351.

NOTE: Students who have received credit for MPER 352, 390 or MUSI 332 may not take this course for credit.

JPER 398 *Special Topics in Jazz Performance* (3 credits)

Prerequisite: JAZZ 200 or exemption, and written permission of the Department of Music. A study of a selected area not available in other courses in jazz performance.

JPER 399 *Special Topics in Jazz Performance* (6 credits)

Prerequisite: JAZZ 200 or exemption, and written permission of the Department of Music. A study of a selected area not available in other courses in jazz performance.

JPER 423 *Big Band III***** (3 credits)

Prerequisite: JPER 323; permission of the Department of Music upon successful audition. A continuation of JPER 323.

*NOTE: This is a full-year course.**NOTE: Students are required to participate in public performances.**NOTE: Students who have received credit for JPER 421 may not take this course for credit.***JPER 424 ***Eclectic Ensemble III***** (3 credits)

Prerequisite: JPER 324; permission of the Department of Music upon successful audition. A continuation of JPER 324.

*NOTE: This is a full-year course.**NOTE: Students are required to participate in public performances.**NOTE: Students who have received credit for JPER 421 may not take this course for credit.***JPER 425 ***Jazz Choir III***** (3 credits)

Prerequisite: JPER 325; permission of the Department of Music upon successful audition. A continuation of JPER 325.

*NOTE: This is a full-year course.**NOTE: Students are required to participate in public performances.**NOTE: Students who have received credit for JPER 421 may not take this course for credit.***JPER 430 ***Jazz Improvisation II***** (6 credits)

Prerequisite: JPER 330. A continuation of JPER 330.

*NOTE: Students who have received credit for MPER 430 may not take this course for credit.***JPER 441 ***Jazz Vocal Repertoire II***** (3 credits)

Prerequisite: JPER 341. A continuation of JPER 341.

*NOTE: Students who have received credit for this topic under a MPER 498 number may not take this course for credit.***JPER 451 ***Jazz Private Study V***** (3 credits)

Prerequisite: JPER 352; third-year standing in the Specialization in Jazz Studies*; written permission of the Department of Music. A continuation of JPER 352.

*NOTE: Students are required to assume part of the cost of private lessons.**NOTE: Students who have received credit for MPER 451, 490 or MUSI 431 may not take this course for credit.***33 or fewer credits remaining in degree program.***JPER 452 ***Jazz Private Study VI***** (3 credits)

Prerequisite: JPER 451 and written permission of the Department of Music. A continuation of JPER 451.

*NOTE: Students who have received credit for MPER 452, 490 or MUSI 432 may not take this course for credit.***JPER 471** ***Independent Study I***** (3 credits)

Prerequisite: Second-year standing* or equivalent, and written permission of the Department of Music. A student-designed course of study, approved by an advisor, on an area of jazz performance practice. When appropriate, the study may include a performance.

66 or fewer credits remaining in degree program.**Students may count a maximum of nine credits in independent studies towards their degree program.***JPER 472* ***Independent Study II***** (3 credits)

Prerequisite: JPER 471 and written permission of the Department of Music. A student repeating JPER 471 registers for JPER 472 for credit.

Students may count a maximum of nine credits in independent studies towards their degree program.JPER 498 ***Special Topics in Jazz Performance***** (3 credits)

Prerequisite: JAZZ 200 or exemption, and written permission of the Department of Music. An advanced study of a selected area not available in other courses in jazz performance.

JPER 499 *Special Topics in Jazz Performance***** (6 credits)

Prerequisite: JAZZ 200 or exemption, and written permission of the Department of Music. An advanced study of a selected area not available in other courses in jazz performance.

Music History:**MHIS 203 ***Music History to 1800***** (3 credits)

A survey of musical styles in their social context to the end of the Classical period. While emphasis is on the mainstream of the Western tradition, attention is also given to folk and popular music, as well as to the music of diverse cultures.

*NOTE: This course is open to non-Music students only if space permits.**NOTE: Students who have received credit for MHIS 200 or 201, or for this topic under a MHIS 498 number, may not take this course for credit.*

MHIS 204 *Music History from 1800 to the Present* (3 credits)

A survey of musical styles in their social context, taken from the end of the Classical period to the present day. While emphasis is on the mainstream of the Western tradition, attention is also given to folk, popular, and jazz styles, as well as to the music of diverse cultures.

NOTE: This course is open to non-Music students only if space permits.

NOTE: Students who have received credit for MHIS 200 or 202, or for this topic under a MHIS 498 number, may not take this course for credit.

MHIS 221 *Rock and Roll and Its Roots* (3 credits)

A study of the history, traditions, styles, and musical trends of rock and roll.

NOTE: Students who have received credit for this topic under a MUSI 265 or 398 number may not take this course for credit.

MHIS 241 *From Phonograph to Streaming* (3 credits)

A lecture course focusing on the history and impact of sound from the loudspeaker.

MHIS 298 *Special Topics in Music History* (3 credits)

Prerequisite: Enrolment in a program in the Department of Music or written permission of the Department of Music. A study of a selected area not available in other courses in music history.

MHIS 305 *Music from the Post-Romantic to the Present* (3 credits)

Prerequisite: MHIS 203, 204. A study of music from the early-20th century to the present. The roots of current trends in music are followed through their growth into the widely diverse styles of today.

MHIS 306 *Early Music Influences on Contemporary Creative Music Practices* (3 credits)

Prerequisite: MHIS 203, 204, or equivalent. This course studies in depth the influence of the Medieval, Renaissance, and early Baroque periods (broadly known as "early music") on 20th- and 21st-century composers and creative practices in music. The course includes musicological inquiry and critical analysis, as well as speculative discussion of future trends.

NOTE: Students who have received credit for MHIS 301 or 302 may not take this course for credit.

MHIS 307 *Common Practice Influences on Contemporary Creative Music Practices* (3 credits)

Prerequisite: MHIS 203, 204, or equivalent. This course studies in depth the influence of the middle to high Baroque, Rococo, Classical and Romantic periods (broadly known as "common practice") on 20th- and 21st-century composers and creative practices in music. The course includes historical, musicological, and critical analysis, as well as speculative discussion of future trends.

NOTE: Students who have received credit for MHIS 303 or 304 may not take this course for credit.

MHIS 314 *Jazz History* (3 credits)

A study of the historical developments and the personalities that contributed to the evolution of jazz styles.

NOTE: Students who have received credit for JHIS 314 may not take this course for credit.

MHIS 315 *Women in Music History* (3 credits)

Prerequisite: MHIS 203, 204; or written permission of the Department of Music. A study of women's contribution to music and the perception of women's roles in music history. This course explores both the historic and current situation of women in music through discussion of women's participation in musical life and the ways women are depicted in music. Topics are not limited to the Western art tradition only, but range widely through other cultures, raising issues such as ritual and lament, spirituality, power, and social class. Readings, listening, guests, and the student's own experiences complement the lectures and discussions.

NOTE: Students who have received credit for this topic under a MHIS 498 number may not take this course for credit.

MHIS 331 *Aesthetics and Musical Styles* (3 credits)

Prerequisite: MHIS 203, 204. A survey and exploration of thought and writings on the meaning, intent, practice, and appreciation of music and its various manifestations in different cultures or eras, aiming to provide students with the tools and background to think deeply about the meaning and direction of musical language.

MHIS 351 *The Ellington Era* (3 credits)

Prerequisite: MHIS 314 or JHIS 314. The study of the life and music of Edward Kennedy Duke Ellington.

NOTE: Students who have received credit for JHIS 351 or MHIS 312 may not take this course for credit.

MHIS 352 *American Popular Song* (3 credits)

Prerequisite: MHIS 314 or JHIS 314. A survey of the composers, lyricists, and performers of American popular song from 1900 to 1950 through the study of works by masters of the genre such as Gershwin, Porter, Berlin, and Arlen.

NOTE: Students who have received credit for JHIS 352 or MHIS 313 may not take this course for credit.

MHIS 353 *The Modern Jazz Orchestra* (3 credits)

Prerequisite: MHIS 314 or JHIS 314. A survey of big band jazz music from 1943 to the present, beginning with Duke Ellington's epic composition "Black, Brown and Beige."

NOTE: Students who have received credit for JHIS 353 or MHIS 316 may not take this course for credit.

MHIS 354 *The Music of Charles Mingus* (3 credits)

Prerequisite: MHIS 314 or JHIS 314. The study of the life and music of Charles Mingus.

NOTE: Students who have received credit for JHIS 354 or MHIS 317 may not take this course for credit.

MHIS 398 *Special Topics in Music History* (3 credits)

Prerequisite: Written permission of the Department of Music. A study of a selected area not available in other courses in music history.

MHIS 471* *Independent Study I* (3 credits)

Prerequisite: Written permission of the Department of Music. A student-designed course of study that focuses on an approved area(s) of music history and/or related disciplines, and involves consultation with an advisor.

**Students may count a maximum of nine credits in independent studies towards their degree program.*

MHIS 472* *Independent Study II* (3 credits)

Prerequisite: Written permission of the Department of Music. A student repeating MHIS 471 registers for MHIS 472 for credit.

**Students may count a maximum of nine credits in independent studies towards their degree program.*

MHIS 498 *Special Topics in Music History* (3 credits)

Prerequisite: 12 credits in Music and written permission of the Department of Music. A study of a selected period, area, or contribution. In a given year, the study may examine any significant aspect of Western, non-Western, or other musics.

Music Performance:

MPER 201 *Orchestra I* (3 credits)

Prerequisite: Written permission of the Department of Music. Students enrolled in this course participate in a large orchestral ensemble. For evaluation, a supervising full-time Music professor observes a minimum of two rehearsals and/or performances, and consults with the ensemble director.

NOTE: Auditions are held during the first class and students who do not pass the audition are required to withdraw from the course prior to the DNE deadline.

MPER 223 *Contemporary Music Ensemble I* (3 credits)

Prerequisite: Enrolment in the Department of Music or written permission of the Department of Music. A performance course based on weekly rehearsals leading to a final concert, open to all instrumentalists and singers, and focusing upon contemporary chamber music or other current musical practices.

NOTE: Auditions are held during the first class and students who do not pass the audition will be required to withdraw from the course prior to the DNE deadline.

NOTE: Students who have received credit for this topic under a MPER 398 number may not take this course for credit.

MPER 233 *University Choir I* (3 credits)

Students enrolled in this course participate in the University Choir.

NOTE: Auditions are held during the first class and students who do not pass the audition are required to withdraw from the course prior to the DNE deadline.

NOTE: This is a full-year course.

NOTE: Students who have received credit for MPER 221 or 231 may not take this course for credit.

MPER 234 *Chamber Choir I* (3 credits)

Students enrolled in this course participate in the Chamber Choir.

NOTE: Auditions are held during the first class and students who do not pass the audition are required to withdraw from the course prior to the DNE deadline.

NOTE: This is a full-year course.

NOTE: Students who have received credit for MPER 221 or 231 may not take this course for credit.

MPER 251 *Private Study I* (3 credits)

Prerequisite: Enrolment in the Major in Music or the Specialization in Music Performance or the Specialization in Music Composition; written permission of the Department of Music. This course offers individual vocal or instrumental instruction in an approved area of music coordinated with the student's program.

NOTE: Students are required to assume part of the cost of private lessons.

NOTE: Students who have received credit for JPER 251 or MUSI 231 may not take this course for credit.

MPER 252 *Private Study II* (3 credits)

Prerequisite: MPER 251; enrolment in the Major in Music or the Specialization in Music Performance or the Specialization in Music Composition; written permission of the Department of Music. A continuation of MPER 251.

NOTE: Students are required to assume part of the cost of private lessons.

NOTE: Students who have received credit for JPER 252 or MUSI 232 may not take this course for credit.

MPER 298 *Special Topics in Music Performance* (3 credits)

Prerequisite: Written permission of the Department of Music. A study of a selected area not available in other courses in music performance.

MPER 301 *Orchestra II* (3 credits)

Prerequisite: MPER 201; written permission of the Department of Music upon successful audition. A continuation of MPER 201. Students enrolled in this course participate in a large orchestral ensemble. For evaluation, a supervising full-time Music professor observes a minimum of two rehearsals and/or performances, and consults with the ensemble director.

NOTE: Students who have received credit for this course as MPER 300 or 498 or may not take this course for credit.

MPER 321 *Chamber Ensemble I* (3 credits)

A study, through performance, of selected works from a broad range of repertoires. The works studied are determined by class needs and the particular skills of each student. Participation in public performances is required.

NOTE: Auditions are held during the first class and students who do not pass the audition are required to withdraw from the course prior to the DNE deadline.

MPER 322 *Chamber Ensemble II* (3 credits)

Prerequisite: MPER 321. A continuation of MPER 321.

MPER 323 *Contemporary Music Ensemble II* (3 credits)

Prerequisite: MPER 223. A continuation of MPER 223.

NOTE: Auditions are held during the first class and students who do not pass the audition will be required to withdraw from the course prior to the DNE deadline.

MPER 333 *University Choir II* (3 credits)

Prerequisite: MPER 233. A continuation of MPER 233.

NOTE: This is a full-year course.

NOTE: Students who have received credit for this course as MPER 498, 420 or 332 may not take this course for credit.

MPER 334 *Chamber Choir II* (3 credits)

Prerequisite: MPER 234. A continuation of MPER 234.

NOTE: This is a full-year course.

NOTE: Students who have received credit for this course as MPER 498, 420 or 332 may not take this course for credit.

MPER 351 *Private Study III* (3 credits)

Prerequisite: MPER 252; second-year standing*; enrolment in the Major in Music or the Specialization in Music Performance or the Specialization in Music Composition; written permission of the Department of Music. A continuation of MPER 252.

NOTE: Students are required to assume part of the cost of private lessons.

NOTE: Students who have received credit for JPER 351, MPER 331 or 390 may not take this course for credit.

*66 or fewer credits remaining in degree program.

MPER 352 *Private Study IV* (3 credits)

Prerequisite: MPER 351; enrolment in the Major in Music or the Specialization in Music Performance or the Specialization in Music Composition; written permission of the Department of Music. A continuation of MPER 351.

NOTE: Students are required to assume part of the cost of private lessons.

NOTE: Students who have received credit for JPER 352, MUSI 330 or 332 may not take this course for credit.

MPER 361 *Transdisciplinary Creation and Performance* (3 credits)

Prerequisite: Second-year standing* or written permission of the Department of Music. A workshop on radical ways of expanding contemporary music and the connection with other disciplines (dance, theatre, film, architecture, biology, engineering, and more), through hands-on experimentation, creation, and performance with interdisciplinarity and transdisciplinarity as one of the core values.

*66 or fewer credits remaining in degree program.

MPER 390 *Advanced Private Study I* (6 credits)

Prerequisite: MPER 251, 252; enrolment in the Specialization in Music Performance; written permission of the Department of Music. This course offers intensive vocal or instrumental instruction for students specializing in performance. A juried examination is required.

NOTE: Students are required to assume part of the cost of private lessons.

NOTE: Students who have received credit for JPER 351, 352, MPER 351, 352, or MUSI 331, 332 may not take this course for credit.

MPER 398 *Special Topics in Music Performance* (3 credits)

Prerequisite: Written permission of the Department of Music. A study of a selected area not available in other courses in music performance.

MPER 399 *Special Topics in Music Performance* (6 credits)

Prerequisite: Written permission of the Department of Music. A study of a selected area not available in other courses in music performance.

MPER 401 *Orchestra III* (3 credits)

Prerequisite: MPER 301; written permission of the Department of Music. A continuation of MPER 301. Students enrolled in this course participate in a large orchestral ensemble. For evaluation, a supervising full-time Music professor observes a minimum of two rehearsals and/or performances, and consults with the ensemble director.

MPER 421 *Chamber Ensemble III* (3 credits)

Prerequisite: MPER 322. A continuation of MPER 322.

MPER 423 *Contemporary Music Ensemble III* (3 credits)

Prerequisite: MPER 323. A continuation of MPER 323.

NOTE: Auditions are held during the first class and students who do not pass the audition will be required to withdraw from the course prior to the DNE deadline.

MPER 433 *University Choir III* (3 credits)

Prerequisite: MPER 333. A continuation of MPER 333.

NOTE: This is a full-year course.

NOTE: Students who have received credit for this course as MPER 498, 420 or 432 may not take this course for credit.

MPER 434 *Chamber Choir III* (3 credits)

Prerequisite: MPER 334. A continuation of MPER 334.

NOTE: This is a full-year course.

NOTE: Students who have received credit for this course as MPER 498, 420 or 432 may not take this course for credit.

MPER 451 *Private Study V* (3 credits)

Prerequisite: MPER 352; 60 credits completed; enrolment in the Specialization in Music Composition; written permission of the Department of Music. A continuation of MPER 352.

NOTE: Students are required to assume part of the cost of private lessons.

NOTE: Students who have received credit for JPER 451, MPER 490 or MUSI 431 may not take this course for credit.

**33 or fewer credits remaining in degree program.*

MPER 452 *Private Study VI* (3 credits)

Prerequisite: MPER 451; enrolment in the Specialization in Music Composition; written permission of the Department of Music. A continuation of MPER 451.

NOTE: Students are required to assume part of the cost of private lessons.

NOTE: Students who have received credit for JPER 452, MUSI 430 or 432 may not take this course for credit.

MPER 471* *Independent Study I* (3 credits)

Prerequisite: Written permission of the Department of Music. A student-designed course of study that focuses on an approved area(s) of performance practice, performance theory/analysis, pedagogy, and/or related disciplines, and involves consultation with an advisor. When appropriate, the study may include a demonstration/performance.

**Students may count a maximum of nine credits in independent studies towards their degree program.*

MPER 472* *Independent Study II* (3 credits)

Prerequisite: Written permission of the Department of Music. A student repeating MPER 471 registers for MPER 472 for credit.

**Students may count a maximum of nine credits in independent studies towards their degree program.*

MPER 481 *Supervised Internship I* (3 credits)

Prerequisite: Enrolment in the Major in Music; 60 credits completed; written permission of the Department of Music. This course provides students with the opportunity to obtain credit for work completed for a recognized performance-based musical organization, or a project under the joint supervision of a qualified professional and a full-time faculty member.

MPER 482 *Supervised Internship II* (3 credits)

Prerequisite: MPER 481; written permission of the Department of Music. This course provides students with the opportunity to obtain credit for work completed for a recognized performance-based musical organization, or a project under the joint supervision of a qualified professional and a full-time faculty member.

MPER 490 *Advanced Private Study II* (6 credits)

Prerequisite: MPER 351, 352 or MPER 390; enrolment in the Specialization in Music Performance; third-year standing*; written permission of the Department of Music. A continuation of MPER 390. An approved public recital may be substituted for the juried examination.

NOTE: Students are required to assume part of the cost of private lessons.

NOTE: Students who have received credit for JPER 451, 452 or MPER 451, 452 may not take this course for credit.

**33 or fewer credits remaining in degree program.*

MPER 498 *Special Topics in Music Performance* (3 credits)

Prerequisite: Written permission of the Department of Music. A seminar/workshop in performance. Selected problems in the development of performance skills. The areas covered are, whenever possible, determined by the specific interests of the students. Topics in any given year may include technique, practice, style, interpretation, accompaniment, ensemble, teaching children, the adult student.

MPER 499 *Special Topics in Music Performance* (6 credits)

Prerequisite: Written permission of the Department of Music. A seminar/workshop in performance. Selected problems in the development of performance skills. The areas covered are, whenever possible, determined by the specific interests of the students. Topics, in any given year, may include technique, practice, style, interpretation, accompaniment, ensemble, teaching children, the adult student.

Music:**MUSI 201 *Introduction to Music Fundamentals*** (3 credits)

An intensive introductory course in basic music theory materials, with integrated practice in aural training and keyboard skills.

NOTE: Students in a major, minor, or specialization program in the Department of Music (excluding students enrolled in an Electroacoustic program) may not take this course for credit.

NOTE: Students who have received credit for this topic under INMS 499 or MUSI 200 may not take this course for credit.

MUSI 211 *Aural Perception I* (3 credits)

Prerequisite: Enrolment in the Major or Minor in Music or the Specialization in Music Performance or the Specialization in Music Composition; or written permission of the Department of Music. A course designed to develop the musical ear through early intermediate-level sight-singing, dictation, aural analysis, and keyboard skills.

NOTE: Students who have received credit for this topic under MUSI 210 may not take this course for credit.

MUSI 212 *Aural Perception II* (3 credits)

Prerequisite: MUSI 211 or written permission of the Department of Music. A continuation of the development of the musical ear through more complex intermediate-level sight-singing, dictation, aural analysis, and keyboard skills.

NOTE: Students who have received credit for this topic under INMS 210 or 310 may not take this course for credit.

MUSI 223 *Understanding Music* (3 credits)

A course in analytical listening for the student who has little or no musical background. The works studied represent the major styles and idioms of Western music.

NOTE: Students in a major, minor, or specialization program in the Department of Music may not take this course for credit towards their degree.

MUSI 241 *Functional Keyboard Skills* (3 credits)

Prerequisite: Enrolment in the Major or Minor in Music or the Specialization in Music Performance or the Specialization in Music Composition; or written permission of the Department. Open to all students whose principal instrument is not piano. Registration priority is given to students enrolled in the BFA Major in Music or specialization programs in the Department of Music. A workshop/laboratory that aims to develop and solidify fundamental and functional piano skills.

MUSI 242 *Functional Guitar Skills* (3 credits)

Prerequisite: Enrolment in the Major or Minor in Music, or written permission of the Department. Open to all students whose principal instrument is not guitar. A workshop/laboratory that aims to develop and solidify fundamental and functional guitar skills.

MUSI 243 *Functional Vocal Skills* (3 credits)

Prerequisite: Enrolment in the Major or Minor in Music, or written permission of the Department. Open to all students whose principal instrument is not voice. A workshop/laboratory that aims to develop and solidify fundamental and functional vocal skills.

MUSI 251 *Harmony I* (3 credits)

Prerequisite: Enrolment in the Major or Minor in Music, or written permission of the Department of Music. An introduction to the basic and intermediate principles of harmonic progressions and voice-leading within the tonal system, with reference to a variety of styles and genres, studied through analysis and composition.

NOTE: Students who have received credit for this topic under MUSI 210 may not take this course for credit.

MUSI 252 *Melody and Counterpoint* (3 credits)

Prerequisite: Enrolment in the Major or Minor in Music, or written permission of the Department of Music. An introduction to the basic elements of melodic construction and contrapuntal technique, with reference to a variety of genres, studied through analysis and composition.

NOTE: Students who have received credit for this topic under MUSI 210 may not take this course for credit.

MUSI 263 *Songwriting I* (3 credits)

Prerequisite: MUSI 211, 251 previously or concurrently. A course that allows students to explore and develop their skills through regular songwriting as well as critical analysis of existing songs.

MUSI 298 *Special Topics in Music* (3 credits)

Prerequisite: Enrolment in a Department of Music program or written permission of the Department of Music. A study of a selected area not available in other courses in music.

MUSI 311 *Aural Perception III* (3 credits)

Prerequisite: MUSI 212. A continuation of aural perception development through sight-singing, dictation, transcription, and aural analysis. The study of aural perception is done through a combination of classroom lectures and workshops.

MUSI 321 *Managing a Career in Music* (3 credits)

This course introduces developing artists to the business and promotional tools necessary for launching and navigating a career in music.

NOTE: Students who have received credit for this topic under a MUSI 398 number may not take this course for credit.

MUSI 322 *New Music and Media Arts* (3 credits)

An introduction to the practice and theory of contemporary sound-based art, new music expressions, and the media arts. This course explores the diversity of creative approaches, from the early 20th century to the present and the students' creative application of these approaches.

NOTE: Students who have received credit for this topic under a MUSI 398 number may not take this course for credit.

MUSI 351 *Analysis* (3 credits)

Prerequisite: MUSI 211, 251, 252. This course offers an introduction to analytical techniques relating to form, motivic development, and texture, with reference to a variety of styles and genres. It also aims to develop critical thinking through the introduction to contemporary analytical approaches that may include disciplines such as semiology or hermeneutics.

MUSI 352 *Harmony II* (3 credits)

Prerequisite: MUSI 211, 251, 252. This course is a continuation of the study of harmonic progressions and voice-leading within the expanded tonal system, with reference to a variety of styles and genres, studied through analysis and composition.

MUSI 353 *Creative Counterpoint* (3 credits)

Prerequisite: MUSI 211, 212, 251, 252. This course explores fugal and contrapuntal techniques found in contemporary music, pop and indie music, film, theatre and game music, and in music of diverse cultures. This course may include elements of performance and/or improvisation.

NOTE: Students who have received credit for this topic or "Intermediate Counterpoint" under an INMS 398 number may not take this course for credit.

MUSI 363 *Songwriting II* (3 credits)

Prerequisite: MUSI 252, 263. This course is a continuation of MUSI 263. It allows students to further explore the development of a personal approach to songwriting and to prepare and present a portfolio of their work.

MUSI 364 *Acoustic Instrumentation and Orchestration* (3 credits)

Prerequisite: MUSI 211, 212, 251, 252. This course covers the fundamental elements of writing for acoustic instruments and for the combination of acoustic instruments in various ensembles and in a variety of genres including classical, contemporary art music, pop, and indie.

NOTE: Students who have received credit for this topic or "Orchestration" under an INMS 398 number may not take this course for credit.

MUSI 365 *Electronic Instrumentation and Orchestration* (3 credits)

Prerequisite: MUSI 211, 212, 251, 252. This course covers the fundamental elements of writing for electronic and amplified instruments and for the combination of these instruments in various ensembles and in a variety of pitch-based genres including contemporary art music, pop and indie.

MUSI 366 *Music Composition Essentials I* (3 credits)

Prerequisite: MUSI 211, 251, 252 previously or concurrently; or written permission of the Department of Music. This seminar/workshop introduces the essential concepts of musical composition, structure and form. Emphasis is placed on the study of compositional techniques from the classical and modern eras through the analysis of concert, film, video game and popular music, and the subsequent creation of small musical pieces.

NOTE: Students who have received credit for MUSI 261 may not take this course for credit.

MUSI 367 *Music Composition Essentials II* (3 credits)

Prerequisite: MUSI 251, 366; MUSI 252 previously or concurrently; or written permission of the Department of Music. This seminar/workshop explores more advanced concepts of musical composition, structure and form. Emphasis is placed on the study of compositional techniques from the classical and modern eras through the analysis of concert, film, video game and popular music, and the subsequent creation of small musical pieces.

NOTE: Students who have received credit for MUSI 262 may not take this course for credit.

MUSI 398 *Special Topics in Music* (3 credits)

Prerequisite: Enrolment in a Department of Music program or written permission of the Department of Music. A seminar/workshop in an area of music that provides an opportunity for the study of specialized aspects of music outside the scope of existing courses.

MUSI 399 *Special Topics in Music* (6 credits)

Prerequisite: Written permission of the Department of Music. A seminar/workshop in an area of music which provides an opportunity for the study of specialized aspects of music outside the scope of existing courses.

MUSI 402 *Capstone Seminar and Project* (3 credits)

Prerequisite: 60 credits completed in the BFA Major in Music or BFA Specialization in Music Composition program or written permission of the Department of Music. A seminar exploring various strategies, aesthetics, methodologies, and resources for creating and for realizing the final creative and/or research-oriented project (the Capstone Project), followed by a workshop and final realization/presentation of the project. Students are encouraged to work in a collaborative, cross-disciplinary, and/or multicultural fashion.

NOTE: Students who have received credit for this topic under MUSI 401 or a MUSI 498 number may not take this course for credit.

MUSI 412 *Aural Perception IV* (3 credits)

Prerequisite: MUSI 311 or equivalent. A course in highly advanced, complex aural perception development through sight-singing, dictation, transcription, study of contemporary scores, aural analysis, and creativity. Emphasis is on euro-western classical music of the 20th and 21st centuries, with inclusion of music from diverse genres and cultures.

NOTE: Students who have received credit for INMS 312 or MUSI 312 may not take this course for credit.

MUSI 421 *Research in Music* (3 credits)

Prerequisite: 30 credits completed. A survey seminar based upon readings and practical applications of research in music, including psychology and neuroscience of music, historical/musicological approaches and research-creation in music.

NOTE: This course is open to non-music students.

NOTE: Students who have received credit for this topic or "Survey of Research in Music Perception and Cognition" under a MUSI 498 number may not take this course for credit.

MUSI 463 *Composing with Sound and Pitch* (3 credits)

Prerequisite: MUSI 367. This seminar/workshop focuses on advanced harmonic materials and sound objects available to the contemporary composer in order to organize pitch-based or non-pitch-based musical compositions. Topics of study may include, but are not limited to: complex scales, modal and atonal harmony, polytonality and polyharmony, pitch-class sets, clusters, spectral music, noise, and microtonality. Emphasis is placed on the development of an individual style through musical creation of longer and more complex projects in the domains of concert, film, video game or popular music.

MUSI 464 *Composing with Time and Space* (3 credits)

Prerequisite: MUSI 367. This seminar/workshop focuses on advanced concepts of time, space and form available to the contemporary composer in order to organize pitch- or non-pitch-based musical compositions. Topics of study may include, but are not limited to: complex time signatures, polymeters, polyrhythms, hypermetres, unmetered music, linear and non-linear time, moment form and spatialization. Emphasis is placed on the development of an individual style through musical creation of longer and more complex projects in the domains of concert, film, video game or popular music.

MUSI 465 *Composing with Rule and Choice* (3 credits)

Prerequisite: MUSI 367. This seminar/workshop focuses on advanced conceptual processes available to the contemporary composer in order to organize pitch- or non-pitch-based musical compositions in non-traditional and performative ways. Topics of study may include, but are not limited to: randomness, procedural and algorithmic composition, open works, improvisation, graphical scores, scenic performances, interactive music, virtual/augmented reality and artificial intelligence. Emphasis is placed on the development of an individual style through musical creation of longer and more complex projects in the domains of concert, film, video game or popular music.

MUSI 466 *Composing for Image and Media* (3 credits)

Prerequisite: MUSI 367. This seminar/workshop focuses on advanced techniques available to the contemporary composer in order to score pitch- or non-pitch-based music to accompany interactive or non-interactive media. Topics of study may include, but are not limited to: film music, video game music, scenic music, sound, art and multimedia installations. Emphasis is placed on the development of an individual style through musical creation of longer and more complex projects for media and their realization using modern software and technology.

MUSI 471* *Independent Study I* (3 credits)

Prerequisite: Written permission of the Department of Music. A student-designed course of study that focuses on an approved area(s) of music theory, analysis, aural perception, orchestration, and/or related disciplines, and involves consultation with an advisor.

NOTE: Students who have received credit for INMS 471 may not take this course for credit.

**Students may count a maximum of nine credits in independent studies towards their degree program.*

MUSI 472* *Independent Study II* (3 credits)

Prerequisite: Written permission of the Department of Music. A student repeating MUSI 471 registers for MUSI 472 for credit.

NOTE: Students who have received credit for INMS 472 may not take this course for credit.

**Students may count a maximum of nine credits in independent studies towards their degree program.*

MUSI 481 *Supervised Internship I* (3 credits)

Prerequisite: 60 credits completed; written permission of the Department of Music. This course provides students with the opportunity to obtain credit for work completed for a recognized performance-based musical organization, or a performance project under the joint supervision of a qualified professional and a full-time faculty member.

MUSI 482 *Supervised Internship II* (3 credits)

Prerequisite: MUSI 481; written permission of the Department of Music. This course provides students with the opportunity to obtain credit for work completed for a recognized musical organization, or a project under the joint supervision of a qualified professional and a full-time faculty member.

MUSI 491 *Special Project in Music* (3 credits)

Prerequisite: Written permission of the Department of Music. This course affords an opportunity for extensive development of a project under the direction of a faculty member. Students submit a project proposal in accordance with the regulations for admission to the specialization.

NOTE: Students repeating MUSI 491 register for MUSI 492 for credit provided the subject matter is different.

NOTE: If the special project is within the realm of performance, the student is required to participate in public performances.

MUSI 492 *Special Project in Music* (3 credits)

Prerequisite: MUSI 491. A continuation of MUSI 491.

NOTE: If the special project is within the realm of performance, the student is required to participate in public performances.

MUSI 498 *Special Topics in Music* (3 credits)

Prerequisite: Written permission of the Department of Music. An advanced seminar/workshop in an area of music which provides an opportunity for the study of specialized aspects of music outside the scope of existing courses.

MUSI 499 *Special Topics in Music* (6 credits)

Prerequisite: Written permission of the Department of Music. An advanced seminar/workshop in an area of music which provides an opportunity for the study of specialized aspects of music outside the scope of existing courses.

Faculty

Chair

LEILA SUJIR, BA *University of Alberta*; Associate Professor

Professors

INGRID BACHMANN, MA *School of the Art Institute of Chicago*
ERIN MANNING, PhD *University of Hawaii*; Provost's Distinction
LEOPOLD PLOTEK, MFA *Slade School of Art*
ERIC SIMON, MFA *Université du Québec à Montréal*
KELLY THOMPSON, MA *Australian National University*
BILL VORN, PhD *Université du Québec à Montréal*
CATHERINE WILD, MFA *University of Wisconsin-Madison*

Associate Professors

ERIKA ADAMS, MFA *University of New Mexico*
GENEVIÈVE CADIEUX, BA *University of Ottawa*; Provost's Distinction
SURABHI GHOSH, MFA *Cranbrook Academy of Art*
CYNTHIA GIRARD, MA *Goldsmith College, University of London*
ELIZA GRIFFITHS, BFA *Concordia University*
KELLY JAZVAC, MFA *University of Victoria*
DANICA JOJICH, MFA *Nova Scotia College of Art and Design*
LUANNE MARTINEAU, MFA *University of British Columbia*
AARON MCINTOSH, MFA *Virginia Commonwealth University*
JEFFREY MITCHELL Jr, MFA *University of Alberta*
MARISA PORTOLESE, MFA *Concordia University*
LINDA SWANSON, MFA *New York State College of Ceramics at Alfred University*
PATRICK TRAER, MFA *York University*

Assistant Professors

DEANNA BOWEN, MVS *University of Toronto*
HANNAH CLAUS, MFA *Concordia University*
MATHEW KARAS, MFA *Alfred University*
NADIA MYRE, MFA *Concordia University*; Provost's Distinction
JUAN ORTIZ-APUY, MFA *NSCAD University*
CHIH-CHIEN WANG, MFA *Concordia University*

Lecturer

MAYA RAE OPPENHEIMER, PhD *London Consortium (Birkbeck, University of London)*

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus
Visual Arts Building, Room: VA 250-2
514-848-2424, ext. 4262/4263

Department Objectives

The Department of Studio Arts offers programs that emphasize the importance of practical work with practising artists. Through a series of courses in ceramics, drawing, fibres and material practices, intermedia (video, performance and electronic arts), painting, photography, print media, and sculpture, students increase their awareness of what constitutes creativity and understanding of the aesthetic and intellectual aspects of art today.

Students are responsible for fulfilling their particular degree requirements; hence, the following sequences must be read in conjunction with §81.20.

The superscript indicates credit value.

81.110.1 STUDIO ART

Program Objective

The Major in Studio Art offers students the freedom for exploration while still developing proficiency within a disciplinary core. The program encourages the cross-referencing of different creative traditions within a solid, historical, theoretical and studio foundation. Its primary objective is to give students the choice to define their own needs in tailoring an individualized program of studies within open parameters. Students are encouraged to choose among a series of studio art electives and progressively establish their concentration or concentrations through required higher-level disciplinary courses. While promoting a respect for disciplines, the program stresses diversity and versatility across studio options.

Students may select their 48 studio art credits required in any media. There is also a similar range from which students can select 12 credits in Art History. Within these specifications, students may fulfill the requirements of the Major in Studio Art either by specializing in a medium or combining studios in a number of them. However, students must complete one studio course at the 300 level (intermediate) and meet the 400 level (advanced) in the same discipline to fulfill their requirements.

Program

- 60 BFA Major in Studio Art
 - 6 DRAW 200⁶
 - 30 Studio Art electives
 - 12 Chosen from 300⁶- and 400⁶-level courses in a single medium from one of the following disciplines: ARTX; Ceramics; Drawing; Fibres and Material Practices; IMCA; Painting; Print Media; Sculpture.
 - 6 Art History electives
 - 6 Chosen from Art History; ARTT; VDEO 350⁶; or other history-based courses chosen from Cinema and Theatre
-

Admission to the Major in Studio Art

In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to the Major in Studio Art. All applicants must submit a *portfolio* of their own work, as well as a *letter of intent*, as part of the admission process.

For more information concerning these additional requirements and submission deadline dates, please visit the following website: concordia.ca/finearts/future-students/applying-undergraduate.

81.110.2 CERAMICS

Program Objective

The Ceramics program offers students a unique opportunity to develop individual studio work in a context that links contemporary art practice to a rich and diverse material history. A vital program within the Studio Arts Department, courses in Ceramics regularly include special collaborative projects, field trips and visiting artists. In addition, the Ceramics program provides students with an important point of departure for investigating diverse subjects ranging from traditional craft practice to new technologies. Well-equipped studios and scheduled labs afford students the means to develop technical skills and to seek information specific to their needs. Course content at all levels of the program includes seminar discussion pertinent to both students' work and to the current practice of ceramics. At an advanced level and in consultation with an advisor, students in Ceramics have the opportunity to pursue independent-study courses.

Program

- 60 BFA Major in Ceramics
 - 18 CERA 230⁶, 330⁶, 430⁶
 - 6 Chosen from CERA 391³, 392³, 398³
 - 3 CERA 498³
 - 6 ARTH 264³, 350³; or other related ARTH
 - 6 Chosen from Art History; ARTT; VDEO 350⁶; or other history-based courses chosen from Cinema and Theatre
 - 21 Studio Art electives
-

Admission to the Major in Ceramics

Applicants to Ceramics may apply to enter directly into the Major in Ceramics, or enter the Major in Studio Art with the intention of transferring upon completion of the first year.

In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to the Major in Ceramics. All applicants must submit a *portfolio* of their own work, as well as a *letter of intent*, as part of the admission process.

For more information concerning these additional requirements and submission deadline dates, please visit the following website: concordia.ca/finearts/future-students/applying-undergraduate.

81.110.3 FIBRES AND MATERIAL PRACTICES

Program Objective

Fibres and Material Practices is a cross-media program of study that explores the relationship of materials to culture. Informed by discourses of post-modernism, feminism, and traditional aesthetics, the Fibres and Material Practices program offers an opportunity for intensive study, both practical and theoretical, of the art, technology, and history of textiles. Such creative and critical investigation, allied with technical proficiency, provides the base students need to develop as emerging artists.

Courses are available at all levels, ranging from introductory classes to independent study for advanced students wishing to focus on a single project. Students concentrating in other areas of Studio Arts are welcome to take most courses offered in the Fibres and Material Practices area.

Program

- 60 BFA Major in Fibres and Material Practices
 - 12 FBRS 240⁶, 260⁶
 - 6 Chosen from FBRS 341³, 361³, 371³, 372³, 385³, 386³, 395³, or 398³
 - 6 FBRS 480⁶
 - 6 ARTH 266³, 352³
 - 6 Chosen from Art History; ARTT; VDEO 350⁶; or other history-based courses chosen from Cinema and Theatre
 - 24 Studio Art electives
-

Admission to the Major in Fibres and Material Practices

Applicants to Fibres and Material Practices may apply to enter directly into the Major in Fibres and Material Practices, or enter the Major in Studio Art with the intention of transferring upon completion of the first year.

In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to the Major in Fibres and Material Practices. All applicants must submit a *portfolio* of their own work, as well as a *letter of intent*, as part of the admission process.

For more information concerning these additional requirements and submission deadline dates, please visit the following website: concordia.ca/finearts/future-students/applying-undergraduate.

81.110.4 INTERMEDIA (VIDEO, PERFORMANCE AND ELECTRONIC ARTS)

Program Objective

The Intermedia program offers a rich curriculum that encourages an intermedia cross-pollination between traditional disciplines and new forms of artistic expression using technology and integrated media practices. Students choose from courses in electronic arts, performance art, and video, focusing on one of these streams or selectively combining areas of study in conjunction with other Studio Arts or Faculty of Fine Arts courses. The program provides a learning environment where students can study different combinations of electronics-robotics-programming, video, performance art, immersive environments, and sound art production.

Program

- 60 BFA Major in Intermedia (Video, Performance and Electronic Arts)
 - 12 Chosen from IMCA 210³, 220³, 221³, 222³, 230³; SCUL 251³; EAST 231³
 - 12 Chosen from IMCA 310⁶, 321³, 322³, 331³, 332³; 398³, 399⁶
 - 6 IMCA 400⁶
 - 12 Studio Art electives
 - 6 Chosen from Fine Arts electives outside of Studio Art
 - 9 Chosen from ARTH, ARTT, VDEO 350⁶
 - 3 ARTH 353³
-

Admission to the Major in Intermedia (Video, Performance and Electronic Arts)

In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to the Major in Intermedia. All applicants must submit a *portfolio* of their own work, as well as a *letter of intent*, as part of the admission process.

For more information concerning these additional requirements and submission deadline dates, please visit the following website: concordia.ca/finearts/future-students/applying-undergraduate.

81.110.5 PAINTING AND DRAWING

Program Objective

The Department of Studio Arts provides an in-depth program in Painting and Drawing, combining theoretical, historical, and practical study at all undergraduate levels. The aim is to provide students with a broad foundation on which they can base their own creative contributions.

Studio courses, seminars, and independent projects on such varied topics as collage, pictorial installation, popular culture, and narration supplement the core courses on painting and drawing. Recognizing the importance of providing basic skills and knowledge, in an atmosphere of freedom, the program is supported by a large number of faculty and guest artists, exposing students to a full range of approaches to drawing and painting.

A graduate program in Painting and Drawing is available for further studies.

Program

- 60 BFA Major in Painting and Drawing
 - 6 DRAW 200⁶
 - 6 PTNG 200⁶
 - 6 Chosen from a 300-level DRAW
 - 6 Chosen from a 300-level PTNG
 - 6 Chosen from a 400-level DRAW or PTNG
 - 18 Studio Art electives
 - 6 Art History electives
 - 6 Chosen from Art History; ARTT; VDEO 350⁶; or other history-based courses chosen from Cinema and Theatre
-

Admission to the Major in Painting and Drawing

In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to the Major in Painting and Drawing. All applicants must submit a *portfolio* of their own work, as well as a *letter of intent*, as part of the admission process.

For more information concerning these additional requirements and submission deadline dates, please visit the following website: concordia.ca/finearts/future-students/applying-undergraduate.

81.110.6 PHOTOGRAPHY

Program Objective

The Photography program acknowledges photography as a discipline with a distinct artistic and historical identity. It also recognizes that contemporary photographic practice encompasses a rich multiplicity of formal and conceptual approaches. The course structure of the program and the orientation of its faculty reflect a concern that the students receive a strong historical and theoretical comprehension of the medium. The program stresses the need for students to acquire the concepts and vocabulary necessary for critical discussion of their own photographic work and that of others. Emphasis is placed on the understanding of photography's sociological and artistic ramifications.

Program

- 60 BFA Major in Photography
 - 27 PHOT 210⁶, 211³, 300⁶, 311³, 331³, 400⁶
 - 9 Photography electives
 - 6 ARTH 267³, 359³
 - 6 Chosen from ARTH or ARTT electives
 - 12 Studio Arts electives
-

Admission to the Major in Photography

In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to the Major in Photography. All applicants must submit a *portfolio* of their own work, as well as a *letter of intent*, as part of the admission process.

For more information concerning these additional requirements and submission deadline dates, please visit the following website: concordia.ca/finearts/future-students/applying-undergraduate.

81.110.7 PRINT MEDIA

Program Objective

The Print Media program provides students with a milieu to investigate the meaningful relationships that exist between the technologies of reproduction, individual expression, and contemporary society. Print Media offers multiple venues for student research from intaglio, lithography, and serigraphy to digital and virtual approaches. Experimental, innovative, and critical work is encouraged. Special topics and theory courses provide support for individual aesthetic development and explore the intersections of interdisciplinary practice.

Students in the Print Media program are expected to develop a strong critical understanding of their work and its relationship to contemporary society, as well as develop professional skills and an awareness of the diversity inherent in art practice.

Programs

60 BFA Major in Print Media

36 Credits chosen from Print Media as follows:

- 9–12 Credits at the 200 level
- 12–21 Credits at the 300 level
- 6–18 Credits at the 400 level

6 Studio Art electives

6 Fine Arts electives

6 Art History electives

6 Chosen from Art History; ARTT; VDEO 350^b; or other history-based courses chosen from Cinema and Theatre

30 Minor in Print Media

18 Credits chosen from Print Media as follows:

- 6–9 Credits at the 200 level
- 6–9 Credits at the 300 level
- 3–6 Credits at the 400 level

6 Studio Art electives

6 Fine Arts electives

Admission to the Major or Minor in Print Media

Applicants to Print Media may apply to enter directly into the Major in Print Media or may enter the Major in Studio Art with the intention of transferring upon completion of the first year.

In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to the Major or Minor in Print Media.

All applicants must submit a *portfolio*, as well as a *letter of intent*, as part of the admission process. For more information concerning these additional requirements and submission deadline dates, please visit the following website: concordia.ca/finearts/future-students/applying-undergraduate.

81.110.8 SCULPTURE

Program Objective

The Sculpture program incorporates contemporary genres with divergent approaches to the discipline, ranging from performance to video installation, built environments, and 3D-digital applications, on to convergences of these ideas to the notion of intervention practices. Within the Fine Arts curriculum, these courses offer the opportunity for intensive study in both practical and theoretical contexts encouraging students to explore the relationships between object, material, body, and space. Such creative investigation, allied with technical proficiency, provides the base for students to develop an understanding of a broad range of sculptural issues. Courses are available at all levels, including independent study for advanced students wishing to focus on a single topic or project. To enrich their artistic training, students concentrating in other areas of Fine Arts may also take most courses offered in sculpture.

Program

60 BFA Major in Sculpture

24 SCUL 210^b, 310^b, 410^b, DRAW 200^b

6 ARTX 480 or 400-level Studio Art elective

18 Studio Art electives

6 Art History electives

6 Chosen from Art History; ARTT; VDEO 350^b; or other history-based courses chosen from Cinema and Theatre

Admission to the Major in Sculpture

Applicants to Sculpture may apply to enter directly into the Major in Sculpture, or enter the Major in Studio Art with the intention of transferring upon completion of the first year.

In addition to the normal admission procedure of Concordia University, there is a distinct admission procedure for applicants to Sculpture. All applicants must submit a *portfolio* of their own work, as well as a *letter of intent*, as part of the admission process. For more information concerning these additional requirements and submission deadline dates, please visit the following website: concordia.ca/finearts/future-students/applying-undergraduate.

COURSES

N.B.:

- (1) While priority is given to students within the program, students wishing to enrol in the course must meet one of the following prerequisites:
- Enrolment in a major or minor program in the Department of Studio Arts.
 - Enrolment in a BFA program with credit requirements in Studio Arts.
 - Written permission of the program director as determined by portfolio submission and space availability.

Art Studio:

ARTX 201 *Introduction to Contemporary Art Practices* (3 credits)

Prerequisite: Enrolment in a BFA degree program, or permission of the program coordinator as determined by portfolio submission. Students should consult the Department of Studio Arts website for more information about the portfolio submission process. This introductory-level studio course familiarizes students with interdisciplinary and transdisciplinary approaches to art making. It is intended for students who wish to work in a variety of media including drawing, painting, sculpture, sound and video.

NOTE: A limited number of spaces are open to Studio Arts Department students.

NOTE: Students who have received credit for an ARTX course may not take this course for credit.

ARTX 280 *Integrated Studio in Contemporary Art Practices I* (6 credits)

Prerequisite: See N.B. number (1). A studio course designed to familiarize students with contemporary art practice and theory in its diverse manifestations. The course questions the boundaries of traditional art disciplines and engages the creative potential of transdisciplinary studio practice with a range of projects that explore, among other things, gesture, mapping, mark-making and time-based image and sound, as well as performative and environmental installation.

ARTX 380 *Intermediate Integrated Studio in Contemporary Art Practices* (6 credits)

Prerequisite: Any 200-level studio course offered by the Department of Studio Arts. This is an intermediate studio course in which students explore and develop a self-directed body of work. The content and context of the course are diverse and students use a wide range of approaches to and methodologies for contemporary art production. The course provides students with opportunities to examine potential roles for the artist today and is based on professional practices including art research, artist writings and exhibition projects.

ARTX 398 *Special Topics in Contemporary Studio Arts Practice* (3 credits)

Prerequisite: Enrolment in a BFA program or written permission of the Department. This studio course brings together students with a practice based in any of the studio disciplines, and/or who have been following an interdisciplinary practice, allowing discussion and exchange on their work in relation to the aspect of art making that this special topic addresses.

ARTX 399 *Special Topics in Contemporary Studio Arts Practice* (6 credits)

Prerequisite: Enrolment in a BFA program or written permission of the Department. This studio course brings together students with a practice based in any of the studio disciplines, and/or who have been following an interdisciplinary practice, allowing discussion and exchange on their work in relation to the aspect of art making that this special topic addresses.

ARTX 480 *Advanced Integrated Studio in Contemporary Art Practices* (6 credits)

Prerequisite: 300-level studio course previously and enrolment in a program offered by the Department of Studio Arts, or written permission of the Department. This course is structured to support advanced students in the development of a mature and self-directed body of work within a transdisciplinary framework.

ARTX 490 *Independent Study* (6 credits)

Prerequisite: 48 credits completed in degree program; a 400-level Studio Arts course previously or concurrently; and written permission of the Department. This course provides a limited number of students the opportunity to pursue advanced studies in a specific interdisciplinary project under the supervision of a full-time ARTX faculty member. A clearly defined written agreement between the student and the instructor involved is required before the independent study is undertaken. This agreement should clearly state the nature of the student's research, and the scope of the project and schedule of work should be equivalent to the workload of a six-credit course. A minimum cumulative GPA of 3.5 is required before requesting permission.

ARTX 491 *Independent Study I* (3 credits)

Prerequisite: 48 credits completed in degree program; a 400-level Studio Arts course previously or concurrently; and written permission of the Department. This course provides a limited number of students the opportunity to pursue advanced studies in a specific interdisciplinary project under the supervision of a full-time ARTX faculty member. A clearly defined written agreement between the student and the instructor involved is required before the independent study is undertaken. This agreement should clearly state the nature of the student's research, and the scope of the project and schedule of work should be equivalent to the workload of a three-credit course. A minimum cumulative GPA of 3.5 is required before requesting permission.

ARTX 492 *Independent Study II* (3 credits)

Prerequisite: 48 credits completed in degree program; a 400-level Studio Arts course previously or concurrently; and written permission of the Department. This course provides a limited number of students the opportunity to pursue advanced studies in a specific interdisciplinary project under the supervision of a full-time ARTX faculty member. A clearly defined written agreement between the student and the instructor involved is required before the independent study is undertaken. This agreement should clearly state the nature of the student's research, and the scope of the project and schedule of work should be equivalent to the workload of a three-credit course. A minimum cumulative GPA of 3.5 is required before requesting permission.

Art Theory:**ARTT 398 *Special Topics in Studio Arts: Ideas and Issues*** (3 credits)

Prerequisite: Enrolment in a BFA program or written permission of the Department. This seminar course provides the opportunity for students of various studio practices to discuss changing issues in theory/practice. Visual material, directed readings, exhibition visits, and invited speakers will be determined by the special topic.

ARTT 399 *Special Topics in Studio Arts: Ideas and Issues* (6 credits)

Prerequisite: Enrolment in a BFA program or written permission of the Department. This seminar course provides the opportunity for students of various studio practices to discuss changing issues in theory/practice. Visual material, directed readings, exhibition visits, and invited speakers will be determined by the special topic.

ARTT 470 *Professional Internship* (6 credits)

Prerequisite: 48 credits in degree requirement and written permission of the Department. Students wishing to work in an internship capacity within an artistic/cultural environment may apply for academic credit. The internship is carried out under the joint supervision of a qualified professional (from within or outside the University) and a full-time Studio Arts faculty member. A clearly defined agreement between the Department, the student, and the artist or institution involved will be arrived at before the internship is undertaken. This agreement should state clearly the nature of the student's participation and the hours of work expected. Projects receiving approval for the internship credits must demonstrate appreciable learning potential for the student.

ARTT 471 *Professional Internship I* (3 credits)

Prerequisite: 48 credits in degree requirement and written permission of the Department. Students wishing to work in an internship capacity within an artistic/cultural environment may apply for academic credit. The internship is carried out under the joint supervision of a qualified professional (from within or outside the University) and a full-time Studio Arts faculty member. A clearly defined agreement between the Department, the student, and the artist or institution involved will be arrived at before the internship is undertaken. This agreement should state clearly the nature of the student's participation and the hours of work expected. Projects receiving approval for the internship credits must demonstrate appreciable learning potential for the student.

ARTT 472 *Professional Internship II* (3 credits)

Prerequisite: ARTT 471, 48 credits in degree requirement and written permission of the Department. Students wishing to work in an internship capacity within an artistic/cultural environment may apply for academic credit. The internship is carried out under the joint supervision of a qualified professional (from within or outside the University) and a full-time Studio Arts faculty member. A clearly defined agreement between the Department, the student, and the artist or institution involved will be arrived at before the internship is undertaken. This agreement should state clearly the nature of the student's participation and the hours of work expected. Projects receiving approval for the internship credits must demonstrate appreciable learning potential for the student.

Ceramics:**CERA 201 *Introduction to Ceramics*** (3 credits)

Prerequisite: Enrolment in a BFA degree program excluding the Major in Ceramics, or permission of the program coordinator as determined by portfolio submission. Students should consult the Department of Studio Arts website for more information about the portfolio submission process. This introductory-level course presents students with basic ceramic processes. It covers fundamental ceramic techniques including handbuilding, glazing and firing.

NOTE: Students in the Major in Ceramics may not take this course for credit.

NOTE: A limited number of spaces are open to Studio Arts Department students.

NOTE: Students who have received credit for a CERA course may not take this course for credit.

CERA 230 *Ceramics I* (6 credits)

Prerequisite: See N.B. number (1). An introduction to clay as an art medium employing the various techniques of forming, shaping, and decorating for firing and glazing.

CERA 330 *Ceramics II* (6 credits)

Prerequisite: CERA 230 or permission of the coordinator. An advanced course in technical and historical research in various ceramic processes with an emphasis on glazes and the use of different clay bodies.

CERA 391 *Urban Clay* (3 credits)

Prerequisite: CERA 230 or permission of the coordinator. This course expands the way ceramics can be experienced in relation to the city through the production of public artworks. Students develop projects in public spaces on Concordia's campus from an initial project proposal through exhibition. Topics include installation strategies, site-specificity, public art and contemporary ceramics as well as the techniques of mould-making and slip-casting.

CERA 392 *Surface Tension* (3 credits)

Prerequisite: CERA 230 or permission of the coordinator. This course involves an in-depth study of the ceramic surface including print and transfer techniques, and layering glaze through multiple firings. Contemporary approaches to ornament are introduced as students develop their own patterns and imagery, utilizing digital and traditional techniques.

CERA 398 *Special Topics in Ceramics* (3 credits)

A workshop/seminar, providing an opportunity for the study of specialized aspects of ceramics. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

CERA 399 *Special Topics in Ceramics* (6 credits)

Prerequisite: Written permission of the Department. A workshop/seminar course providing an opportunity for the study of specialized aspects in ceramics.

CERA 430 *Ceramics III* (6 credits)

Prerequisite: CERA 330 or permission of the coordinator. The development of a body of personal work and a refinement of specific problems in clay.

CERA 450 *Independent Study* (6 credits)

Prerequisite: 48 credits in the Major in Ceramics; CERA 430 previously or concurrently; and written permission of the Department. This course provides a limited number of students the opportunity to pursue advanced studies in ceramics under the supervision of a full-time ceramics faculty member. A clearly defined written agreement between the student and the instructor involved is required before the independent study is undertaken. This agreement should clearly state the nature of the student's research, and the scope of the project and schedule of work should be equivalent to the workload of a six-credit course. A minimum cumulative GPA of 3.5 is required before requesting permission.

CERA 451 *Independent Study I* (3 credits)

Prerequisite: 48 credits in the Major in Ceramics; CERA 430 previously or concurrently; and written permission of the Department. This course provides a limited number of students the opportunity to pursue advanced studies in ceramics under the supervision of a full-time ceramics faculty member. A clearly defined written agreement between the student and the instructor involved is required before the independent study is undertaken. This agreement should clearly state the nature of the student's research, and the scope of the project and schedule of work should be equivalent to the workload of a three-credit course. A minimum cumulative GPA of 3.5 is required before requesting permission.

CERA 452 *Independent Study II* (3 credits)

Prerequisite: 48 credits in the Major in Ceramics; CERA 430 previously or concurrently; and written permission of the Department. This course provides a limited number of students the opportunity to pursue advanced studies in ceramics under the supervision of a full-time ceramics faculty member. A clearly defined written agreement between the student and the instructor involved is required before the independent study is undertaken. This agreement should clearly state the nature of the student's research, and the scope of the project and schedule of work should be equivalent to the workload of a three-credit course. A minimum cumulative GPA of 3.5 is required before requesting permission.

CERA 498 *Special Topics in Ceramics* (3 credits)

Prerequisite: 300-level CERA course, or permission of the coordinator. An advanced studio course that provides an opportunity for the study of more specialized aspects of ceramics. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

CERA 499 *Special Topics in Ceramics* (6 credits)

An advanced studio course which provides an opportunity for the study of more specialized aspects of ceramics. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

Drawing:

DRAW 200 *Drawing I* (6 credits)

Prerequisite: See N.B. number (1). A studio course which provides a technical and conceptual introduction to drawing focusing on the distinctive and interdisciplinary nature of the practice. Various media are employed to examine and express form, space, and composition through a variety of graphic subject matter. Drawing from observation, imagination, and memory are covered.

DRAW 201 *Introduction to Drawing* (3 credits)

Prerequisite: Enrolment in a BFA degree program excluding the Major in Painting and Drawing, or permission of the program coordinator as determined by portfolio submission. Students should consult the Department of Studio Arts website for more information about the portfolio submission process. This course introduces students to elementary skills required by the art of drawing. It covers fundamental drawing techniques and explores various mediums and concepts of drawing in the historical and contemporary art world.

NOTE: Students in the Major in Painting and Drawing may not take this course for credit.

NOTE: A limited number of spaces are open to Studio Arts Department students.

NOTE: Students who have received credit for a DRAW course may not take this course for credit.

DRAW 298 *Special Topics in Drawing* (3 credits)

Prerequisite: See N.B. number (1). A studio course which provides an opportunity for the study of more specialized aspects of drawing.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

DRAW 299 *Special Topics in Drawing* (6 credits)

Prerequisite: See N.B. number (1). A studio course which provides an opportunity for the study of more specialized aspects of drawing.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

DRAW 300 *Drawing II* (6 credits)

Prerequisite: DRAW 200. This studio course is an intermediate drawing course in which directed projects allow students to explore different approaches to drawing and to begin to develop a more personal visual language based on the skill sets acquired at the 200 level. Historical and contemporary issues in art practice are addressed in this course.

DRAW 310 *Narration, Time, Stories I* (6 credits)

Prerequisite: DRAW 200. This studio course encourages drawing based on personal experience or fictitious content, and the influence of film, books, diaries and illustration. A focus on character, setting and alternate worlds all contribute to a re-emerging interest in narrative forms such as temporality, playback, loops and sequencing.

NOTE: Students who have received credit for this topic under a DRAW 399 number may not take this course for credit.

DRAW 312 *Drawing and Knowledge I* (6 credits)

Prerequisite: DRAW 200. This studio course explores a range of conceptual approaches to drawing using both traditional and experimental methods. Drawing is used as a means to question and make propositions about bodies of knowledge.

NOTE: Students who have received credit for this topic under a DRAW 399 number may not take this course for credit.

DRAW 314 *Life in the Round: Drawing the Figure from Observation I* (6 credits)

Prerequisite: DRAW 200. This studio course focuses on the experience of seeing and depicting the living human body in all its complexity and presence.

NOTE: Students who have received credit for this topic under a DRAW 399 number may not take this course for credit.

DRAW 398 *Special Topics in Drawing* (3 credits)

Prerequisite: DRAW 200. A studio course which provides an opportunity for the study of more specialized aspects of drawing. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

DRAW 399 *Special Topics in Drawing* (6 credits)

Prerequisite: DRAW 200; written permission of the Department. A studio course which provides an opportunity for the study of more specialized aspects of drawing.

DRAW 400 *Drawing III* (6 credits)

Prerequisite: Any 300-level DRAW course. An advanced drawing class in which students develop a series of self-directed projects in order to create a coherent body of work in drawing and to situate it within contemporary practice. Independent studio practice is supplemented by readings, lectures, seminars, museum/gallery visits and visiting artists.

DRAW 410 *Narration, Time, Stories II* (6 credits)

Prerequisite: Any 300-level DRAW course. This advanced-level studio course encourages drawing based on personal experience or fictitious content, and the influence of film, books, diaries and illustration. A focus on character, setting and alternate worlds all contribute to a re-emerging interest in narrative forms such as temporality, playback, loops and sequencing.

NOTE: Students who have received credit for this topic under a DRAW 499 number may not take this course for credit.

DRAW 412 *Drawing and Knowledge II* (6 credits)

Prerequisite: Any 300-level DRAW course. This advanced-level studio course explores a range of conceptual approaches to drawing using both traditional and experimental methods. Drawing is used as a means to question and make propositions about bodies of knowledge.

NOTE: Students who have received credit for this topic under a DRAW 499 number may not take this course for credit.

DRAW 414 *Life in the Round: Drawing the Figure from Observation II* (6 credits)

Prerequisite: Any 300-level DRAW course. This advanced-level studio course focuses on the experience of seeing and depicting the living human body in all its complexity and presence.

NOTE: Students who have received credit for this topic under a DRAW 499 number may not take this course for credit.

DRAW 418 *Between the Wall and the Viewer* (6 credits)

Prerequisite: Any 300-level Studio Art course. An installation studio course taught by the Painting and Drawing area that encourages students to create work in the context of an expanded field. It includes experimental pictorial, spatial, performative and conceptual responses to site considerations using collage/assemblage, shaped canvases, text/image, objects, paint and unconventional materials.

NOTE: Students who have received credit for PTNG 418, or for this topic under a DRAW or PTNG 499 number, may not take this course for credit.

DRAW 420 *Seminar/Workshop in Drawing* (6 credits)

Prerequisite: PTNG 320 or written permission of the Department. An advanced studio in drawing having its principal emphasis in studio practice, but developing further the theoretical concepts introduced in PTNG 320.

NOTE: Students who have received credit for ART 320 may not take this course for credit.

DRAW 450 *Drawing IV* (6 credits)

Prerequisite: DRAW 400. An advanced drawing class in which students develop a series of independent projects that allow them to create a coherent body of work in drawing and to situate it within contemporary practice. Independent studio production is supplemented by readings, lectures, seminars, museum/gallery visits and visiting artists.

DRAW 470 *Independent Study* (6 credits)

Prerequisite: 48 credits completed in degree program; a 400-level DRAW course previously or concurrently; and written permission of the Department. This course provides a limited number of students the opportunity to pursue advanced studies in drawing under the supervision of a full-time drawing faculty member. A clearly defined written agreement between the student and the instructor involved is required before the independent study is undertaken. This agreement should clearly state the nature of the student's research, and the scope of the project and schedule of work should be equivalent to the workload of a six-credit course. A minimum cumulative GPA of 3.5 is required before requesting permission.

DRAW 471 *Independent Study I* (3 credits)

Prerequisite: 48 credits completed in degree program; a 400-level DRAW course previously or concurrently; and written permission of the Department. This course provides a limited number of students the opportunity to pursue advanced studies in drawing under the supervision of a full-time drawing faculty member. A clearly defined written agreement between the student and the instructor involved is required before the independent study is undertaken. This agreement should clearly state the nature of the student's research, and the scope of the project and schedule of work should be equivalent to the workload of a three-credit course. A minimum cumulative GPA of 3.5 is required before requesting permission.

DRAW 472 *Independent Study II* (3 credits)

Prerequisite: 48 credits completed in degree program; a 400-level DRAW course previously or concurrently; and written permission of the Department. This course provides a limited number of students the opportunity to pursue advanced studies in drawing under the supervision of a full-time drawing faculty member. A clearly defined written agreement between the student and the instructor involved is required before the independent study is undertaken. This agreement should clearly state the nature of the student's research, and the scope of the project and schedule of work should be equivalent to the workload of a three-credit course. A minimum cumulative GPA of 3.5 is required before requesting permission.

DRAW 498 *Special Topics in Drawing* (3 credits)

A course for advanced students which provides an opportunity for the study of more specialized areas in drawing. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

DRAW 499 *Special Topics in Drawing* (6 credits)

A course for advanced students which provides an opportunity for the study of more specialized areas in drawing. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

Fibres and Material Practices:**FBRS 201 *Introduction to Fibres and Material Practices*** (3 credits)

Prerequisite: Enrolment in a BFA degree program excluding the Major in Fibres and Material Practices, or permission of the program coordinator as determined by portfolio submission. Students should consult the Department of Studio Arts website for more information about the portfolio submission process. This course introduces students to elementary fibres processes and related tools. It covers fundamental two- and three-dimensional fibres techniques, including stitch work, felt making, and off-loom structures.

NOTE: Students in the Major in Fibres and Material Practices may not take this course for credit.

NOTE: A limited number of spaces are open to Studio Arts Department students.

NOTE: Students who have received credit for a FBRS course may not take this course for credit.

FBRS 240 Fibre Structures I (6 credits)

Prerequisite: See N.B. number (1). An introductory course in which students explore the expressive potential of various materials and processes of fibre structures such as loom weaving, feltmaking, basketry, surface applications, and other experimental constructions.

FBRS 260 Textile Printing and Dyeing I (6 credits)

Prerequisite: See N.B. number (1). An introductory course in which students explore the creative potential of printing, painting, dyeing, resist work, and construction with fabric.

FBRS 341 Intermediate Fibre Structures (3 credits)

Prerequisite: FBRS 240 or permission of the coordinator. An intermediate-level studio course, which emphasizes the visual and conceptual development in fibre media. Complex woven structures, fibre sculpture, installation practices, and other experimental approaches are explored.

NOTE: Students who have received credit for FBRS 340 may not take this course for credit.

FBRS 361 Intermediate Textile Printing and Dyeing (3 credits)

Prerequisite: FBRS 260 or permission of the coordinator. An intermediate-level studio course in textile printing and dyeing with an emphasis on the development of content. Interdisciplinary approaches such as photo processes and sculptural installation are combined with traditional print and dye techniques.

NOTE: Students who have received credit for FBRS 360 may not take this course for credit.

FBRS 371 Paper: Surface and Object (3 credits)

Prerequisite: 18 credits in Studio Art courses, or permission of the coordinator. This studio course introduces both Western and Eastern (Japanese) methods of processing raw materials to make pulp and form sheets of paper to be used in expressive art forms. Printing, dyeing, cutting, and bookbinding are used in the consideration of paper as surface and medium.

NOTE: Students who have received credit for FBRS 370 may not take this course for credit.

FBRS 372 Paper Works (3 credits)

Prerequisite: 18 credits in Studio Art courses, or permission of the coordinator. This studio course introduces students to making paper as part of an expressive material practice. Sculptural processes such as vacuum relief, casting, and armature building are explored alongside interdisciplinary approaches such as assemblage and the book as object, among others.

NOTE: Students who have received credit for FBRS 370 may not take this course for credit.

FBRS 385 Issues in Material Practices (3 credits)

Prerequisite: FBRS 260 or FBRS 240 or permission of the coordinator. This studio course explores contemporary social, material, and cultural issues addressed through fibre and interdisciplinary studio art practices. Assigned readings inform critiques and discussions. Examples of possible title offerings may include Textiles and Identity; The Sustainable Studio; Textiles Without Borders; Transformative Cloth; and Social and Political Practices in Studio Art, among others.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

FBRS 386 Digital Technologies and Material Practices (3 credits)

Prerequisite: FBRS 240 or FBRS 260 or permission of the coordinator. This studio course combines digital and material approaches within the context of contemporary studio practice. Topics may include software for textile arts, electronic textiles, or other thematic subjects that are combined with electrical and material practices. Other topics may include the use of digital technologies for imaging, pattern development, and textile structures.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

FBRS 395 Extreme Fibres (3 credits)

Prerequisite: 18 credits in Studio Art courses, or permission of the coordinator. This studio course tests the boundaries of fibres practices to produce innovative and experimental studio work. Students are encouraged to expand individual interests in challenging ways. Topics may include Textile Arts in Public Spaces; Widely Interdisciplinary Practices; Fibres and Time-Based Media; Radical Papermaking; and Fibres Off-Site, among others.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

FBRS 396 Topics in Fibre Surfaces (3 credits)

Prerequisite: FBRS 260 and 18 credits in Studio Art courses, or permission of the coordinator. A studio course providing an opportunity for specialized study and practice in fibres surfaces, to explore theoretical, critical, and practical issues of interest to the student towards developing their individual aesthetic in contemporary art.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

FBRS 397 Topics in Fibre Structures (3 credits)

Prerequisite: FBRS 240 and 18 credits in Studio Art courses, or permission of the coordinator. A studio course providing an opportunity for specialized study and practice in fibres structures, in which to explore contemporary theoretical, critical, and practical issues of interest to the student towards developing a personal aesthetic in art practice.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

FBRS 398 *Special Topics in Fibres and Material Practices* (3 credits)

Prerequisite: Written permission of the Department. A workshop/seminar course providing an opportunity for study of specialized aspects of fibres.

FBRS 399 *Special Topics in Fibres and Material Practices* (6 credits)

Prerequisite: Written permission of the Department. A workshop/seminar course providing an opportunity for the study of specialized aspects in fibres.

FBRS 450 *Independent Study* (6 credits)

Prerequisite: 48 credits in the Major in Fibres and Material Practices; FBRS 480 previously or concurrently; and written permission of the Department. This course provides a limited number of students the opportunity to pursue advanced studies in fibres under the supervision of a full-time fibres faculty member. A clearly defined written agreement between the student and the instructor involved is required before the independent study is undertaken. This agreement should clearly state the nature of the student's research, and the scope of the project and schedule of work should be equivalent to the workload of a six-credit course. A minimum cumulative GPA of 3.5 is required before requesting permission.

FBRS 451 *Independent Study I* (3 credits)

Prerequisite: 48 credits completed in degree program; FBRS 480 previously or concurrently; and written permission of the Department. This course provides a limited number of students the opportunity to pursue advanced studies in fibres under the supervision of a full-time fibres faculty member. A clearly defined written agreement between the student and the instructor involved is required before the independent study is undertaken. This agreement should clearly state the nature of the student's research, and the scope of the project and schedule of work should be equivalent to the workload of a three-credit course. A minimum cumulative GPA of 3.5 is required before requesting permission.

FBRS 452 *Independent Study II* (3 credits)

Prerequisite: 48 credits completed in degree program; FBRS 480 previously or concurrently; and written permission of the Department. This course provides a limited number of students the opportunity to pursue advanced studies in fibres under the supervision of a full-time fibres faculty member. A clearly defined written agreement between the student and the instructor involved is required before the independent study is undertaken. This agreement should clearly state the nature of the student's research, and the scope of the project and schedule of work should be equivalent to the workload of a three-credit course. A minimum cumulative GPA of 3.5 is required before requesting permission.

FBRS 480 *Advanced Fibres* (6 credits)

Prerequisite: Six credits in Fibres and Material Practices at the 300 level, or written permission of the Fibres and Material Practices coordinator. An advanced-level course in which students create a personal body or work, refine technical expertise, and develop a visual and critical language related to fibres and textiles.

FBRS 481 *Professional Internship I* (3 credits)

Prerequisite: 48 credits completed in a Studio Arts program; written permission of the Department. Internships are designed to provide professional experience to students. Students seeking to work in an apprentice capacity with an established artist, or wishing to pursue research in a fibres studio, or research in fibres criticism, museum work, publication, or other related endeavours, may apply for academic credit. The internship is carried out under the joint supervision of a qualified professional (internal or external to the University) and a full-time Fibres and Material Practices faculty member. A clearly defined agreement between the Department, the student, and the artist or institution involved will be arrived at before the Professional Internship is undertaken. Students are required to submit a proposal that clearly defines the learning objectives of the internship and the expected workload (which should equal the hours required for a three-credit course). A Professional Internship request form must be completed and approved by the faculty supervisor and the Department Chair prior to registration permission. Students will supply a report upon completion of the internship to the faculty supervisor and an evaluation from the external supervisor will inform the final grade submitted by the faculty supervisor.

FBRS 482 *Professional Internship II* (3 credits)

Prerequisite: FBRS 481; 48 credits completed in a Studio Arts program; written permission of the Department. Internships are designed to provide professional experience to students. Students seeking to work in an apprentice capacity with an established artist, or wishing to pursue research in a fibres studio, or research in fibres criticism, museum work, publication, or other related endeavours, may apply for academic credit. The internship is carried out under the joint supervision of a qualified professional (internal or external to the University) and a full-time Fibres and Material Practices faculty member. A clearly defined agreement between the Department, the student, and the artist or institution involved will be arrived at before the Professional Internship is undertaken. Students are required to submit a proposal that clearly defines the learning objectives of the internship and the expected workload (which should equal the hours required for a three-credit course). A Professional Internship request form must be completed and approved by the faculty supervisor and the Department Chair prior to registration permission. Students will supply a report upon completion of the internship to the faculty supervisor and an evaluation from the external supervisor will inform the final grade submitted by the faculty supervisor.

Intermedia (Video, Performance and Electronic Arts):

IMCA 201 *Introduction to Intermedia Arts* (3 credits)

Prerequisite: Enrolment in a BFA degree program excluding the Major in Intermedia, or permission of the program coordinator as determined by portfolio submission. Students should consult the Department of Studio Arts website for more information about the portfolio submission process. This introductory-level course covers fundamental ideas and techniques related to video art, performance art and electronic art. It introduces students to the theoretical and historical background of intermedia arts and allows them to develop artistic projects related to these art forms.

NOTE: Students in the Major in Intermedia may not take this course for credit.

NOTE: A limited number of spaces are open to Studio Arts Department students.

NOTE: Students who have received credit for an IMCA course may not take this course for credit.

NOTE: Students are required to bear the cost of materials.

IMCA 210 *Introduction to Video Production* (3 credits)

Prerequisite: Enrolment in the Intermedia (Video, Performance and Electronic Arts) program or written permission of the Department. This studio/seminar course introduces video technology as a tool for aesthetic investigations. Students work individually and collaboratively to develop a proficiency in the medium and evolve their own thematic and formal concerns. The course introduces basic pre-production, production, and post-production skills to present basic concepts of non-linear editing. Issues specific to video are discussed through the analysis and demonstration of video art.

NOTE: Students who have received credit for VDEO 300 may not take this course for credit.

IMCA 220 *Introduction to Digital Media and Electronic Arts* (3 credits)

Prerequisite: Enrolment in the Intermedia (Video, Performance and Electronic Arts) program or written permission of the Department. This studio course is an introduction to the interface between the real world and the computer. Students learn different digitizing techniques as well as the basic communication protocols, compression formats, and numerous standards for text, sound, video, and digital data. They also learn how to create digital artworks using audiovisuals, scanning, printing, and networking.

IMCA 221 *Programming for Artists* (3 credits)

Prerequisite: Enrolment in the Intermedia (Video, Performance and Electronic Arts) program or written permission of the Department. This studio course is an introduction to basic programming techniques used to create interactive art projects. It is centred on learning the basics of popular object-oriented programming environments such as Max and Jitter, currently used for installation and performance works in interactive music, sound art, interactive video, telematic art, robotics, and more. This course allows students to explore non-screen-based approaches to audiovisual control as well as the more traditional keyboard-and-mouse interface.

IMCA 222 *Electronics for Artists* (3 credits)

Prerequisite: Enrolment in the Intermedia (Video, Performance and Electronic Arts) program or written permission of the Department. This studio course is an introduction to electronics as applied to artistic projects. It focuses on practical applications of basic electronic principles and techniques and the integration of electronic components and circuits in works of art. From basic electricity to motor control, from flashers and beepers to motion detectors, from analog circuits to digital technologies, it allows students to create artworks involving light, sound, movement, sensors, and interactivity.

NOTE: Students who have received credit for EART 300 may not take this course for credit.

IMCA 230 *Performance Art* (3 credits)

Prerequisite: Enrolment in the Intermedia (Video, Performance and Electronic Arts) program or written permission of the Department. This studio course investigates performance art as a form of social and artistic intervention that crosses between the visual and performing arts. Reflecting the long-standing and historical importance of performance practices in the visual arts, students focus on the production of projects that may reflect such issues as real-time, site-specific, interventionist actions, the interrelationship between installations and performances, and the interdisciplinary interface between performance and other practices found in the performing arts. This course also examines video performance and photography as media for generating performative gestures and as documentation tools.

IMCA 310 *Intermediate Video Production* (6 credits)

Prerequisite: IMCA 210 and VDEO 350 previously or concurrently; or written permission of the Department. This studio/seminar course introduces video technology as a tool for aesthetic investigations. Students work individually and collaboratively to develop proficiency in the medium and evolve their own thematic and formal concerns. Discussions, facilitated by video screenings, workshops, and readings, focus on class projects, student work, and a discussion of related art issues. In addition, this course offers students an opportunity to investigate other cultural practices that inform and interrogate contemporary video art.

NOTE: Students are required to bear the cost of materials.

NOTE: Students who have received credit for VDEO 300 may not take this course for credit.

IMCA 321 *Electronic Arts Workshop* (3 credits)

Prerequisite: 24 credits completed in degree program within the Department of Studio Arts; or written permission of the Department. This studio course focuses on interactive technologies in relation to contemporary art practices (for example, installation, performance, kinetic sculpture, and sound art). Students may pursue individual or team work while developing their

artistic project. This course is centred on programming environments (such as MaxMSP and Jitter) and focuses on interactivity through the use of various sensors and interfaces, and on popular and easy-to-learn microcontrollers.

NOTE: Students are required to bear the costs related to this course.

NOTE: Students who have received credit for IMCA 320 may not take this course for credit.

NOTE: IMCA 221 and/or IMCA 222 are not mandatory, but are recommended.

IMCA 322 *Robotics for Artists* (3 credits)

Prerequisite: 24 credits completed in a degree program within the Department of Studio Arts; or written permission of the Department. This studio course focuses on robotic technologies applied to the arts and electronics, mechanics and programming integration. The emphasis is on an interdisciplinary and cybernetic approach to audiovisual media control and expression including movement, sound, lighting, and video using computers and electronics. In order to develop robotic art projects, students create interactive systems and machine behaviours through the use of various sensors and actuators.

NOTE: Students are required to bear the costs related to this course.

NOTE: Students who have received credit for IMCA 320 may not take this course for credit.

NOTE: IMCA 221 and/or IMCA 222 are not mandatory, but are recommended.

IMCA 331 *Intermedia and Interventionist Performance Practices* (3 credits)

Prerequisite: 24 credits completed within the Intermedia (Video, Performance and Electronic Arts) program; or written permission of the Department. An intermediate-level studio class with a seminar component focusing on the development of site-specific projects based on video, performance and electronic arts. The seminar component of the course includes a series of readings and the presentation of an extensive range of work by artists.

NOTE: Students who have received credit for IMCA 330 may not take this course for credit.

IMCA 332 *Intermedia, Performance Practices and Performative Video* (3 credits)

Prerequisite: 24 credits completed within the Intermedia (Video, Performance and Electronic Arts) program; or written permission of the Department. This intermediate-level studio class with a seminar component focuses on the development of intermedia projects based on video, expanded moving image practices, sound, performance and electronic arts. The seminar component of the course includes a series of readings and the presentation of an extensive range of work by artists

NOTE: Students who have received credit for IMCA 330 may not take this course for credit.

IMCA 398 *Special Topics in Intermedia* (3 credits)

Prerequisite: Second-year standing* in the Intermedia (Video, Performance and Electronic Arts) program or written permission of the Department. This studio course provides an opportunity for study and practice of specialized aspects of intermedia.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

*30 credits completed in degree program.

IMCA 399 *Special Topics in Intermedia* (6 credits)

Prerequisite: Second-year standing* in the Intermedia (Video, Performance and Electronic Arts) program or written permission of the Department. This studio course provides an opportunity for study and practice of specialized aspects of intermedia.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

*30 credits completed in degree program.

IMCA 400 *Advanced Practices in Video, Performance and Electronic Arts* (6 credits)

Prerequisite: 48 credits completed within the Intermedia (Video, Performance and Electronic Arts) program; or written permission of the Department. An advanced studio class in which students create a personal body of work, refine technical expertise, and develop a visual and critical language related to video, performance, and electronic arts. Topics are presented and discussed in seminar fashion. A group exhibition at the end of the year is required.

NOTE: Students are expected to bear the costs related to this course.

NOTE: Students who have received credit for this topic under an IMCA 499 number may not take this course for credit.

IMCA 470 *Independent Study in Intermedia* (6 credits)

Prerequisite: 48 credits completed in degree program; a 400-level IMCA course previously or concurrently; and written permission of the Department. This course provides a limited number of students the opportunity to pursue advanced studies in intermedia under the supervision of a full-time intermedia faculty member. A clearly defined written agreement between the student and the instructor involved is required before the independent study is undertaken. This agreement should clearly state the nature of the student's research, and the scope of the project and schedule of work should be equivalent to the workload of a six-credit course. A minimum cumulative GPA of 3.5 is required before requesting permission.

IMCA 471 *Independent Study in Intermedia I* (3 credits)

Prerequisite: 48 credits completed in degree program; a 400-level IMCA course previously or concurrently; and written permission of the Department. This course provides a limited number of students the opportunity to pursue advanced studies in intermedia under the supervision of a full-time intermedia faculty member. A clearly defined written agreement between the student and the instructor involved is required before the independent study is undertaken. This agreement should clearly state the nature of the student's research, and the scope of the project and schedule of work should be equivalent to the workload of a three-credit course. A minimum cumulative GPA of 3.5 is required before requesting permission.

IMCA 472 *Independent Study in Intermedia II* (3 credits)

Prerequisite: 48 credits completed in degree program; a 400-level IMCA course previously or concurrently; and written permission of the Department. This course provides a limited number of students the opportunity to pursue advanced studies in intermedia under the supervision of a full-time intermedia faculty member. A clearly defined written agreement between the student and the instructor involved is required before the independent study is undertaken. This agreement should clearly state the nature of the student's research, and the scope of the project and schedule of work should be equivalent to the workload of a three-credit course. A minimum cumulative GPA of 3.5 is required before requesting permission.

IMCA 480 *Professional Internship in Intermedia* (6 credits)

Prerequisite: Third-year standing* and written permission of the Department. Under the joint supervision of a qualified professional and a full-time faculty member, the student is employed within industry or by a professional organization or other relevant institution. A clearly defined agreement between the Department, the student, and the artist/professional or institution involved is established before the internship is undertaken. This agreement should clearly state the nature of the student's participation and the hours of work expected. Projects receiving approval for the internship credits must demonstrate appreciable learning potential for the student.
*60 credits completed in degree program.

IMCA 481 *Professional Internship in Intermedia I* (3 credits)

Prerequisite: Third-year standing* and written permission of the Department. Under the joint supervision of a qualified professional and a full-time faculty member, the student is employed within industry or by a professional organization or other relevant institution. A clearly defined agreement between the Department, the student, and the artist/professional or institution involved is established before the internship is undertaken. This agreement should clearly state the nature of the student's participation and the hours of work expected. Projects receiving approval for the internship credits must demonstrate appreciable learning potential for the student.
*60 credits completed in degree program.

IMCA 482 *Professional Internship in Intermedia II* (3 credits)

Prerequisite: Third-year standing* and written permission of the Department. Under the joint supervision of a qualified professional and a full-time faculty member, the student is employed within industry or by a professional organization or other relevant institution. A clearly defined agreement between the Department, the student, and the artist/professional or institution involved is established before the internship is undertaken. This agreement should clearly state the nature of the student's participation and the hours of work expected. Projects receiving approval for the internship credits must demonstrate appreciable learning potential for the student.
*60 credits completed in degree program.

IMCA 498 *Special Topics in Intermedia* (3 credits)

Prerequisite: Third-year standing* in the Intermedia (Video, Performance and Electronic Arts) program or written permission of the Department. This studio course provides an opportunity for study and practice of specialized aspects of intermedia.
*60 credits completed in degree program.

IMCA 499 *Special Topics in Intermedia* (6 credits)

Prerequisite: Third-year standing* in the Intermedia (Video, Performance and Electronic Arts) program or written permission of the Department. This studio course provides an opportunity for study and practice of specialized aspects of intermedia.
*60 credits completed in degree program.

Painting:

PTNG 200 *Painting I* (6 credits)

Prerequisite: See N.B. number (1). A studio course which provides a technical and conceptual introduction to painting focusing on the distinctive nature of the medium. Basic painting materials and processes are explored through exercises in figuration, abstraction, colour, composition, and the construction of pictorial space.

PTNG 201 *Introduction to Painting* (3 credits)

Prerequisite: Enrolment in a BFA degree program excluding the Major in Painting and Drawing, or permission of the program coordinator as determined by portfolio submission. Students should consult the Department of Studio Arts website for more information about the portfolio submission process. This introductory-level course explores elementary concepts in the art of painting through a series of structured studio experiences. It covers fundamental painting techniques in a way that allows students to grasp painting as the creation of tension between a physical surface and an imagined space.

NOTE: Students in the Major in Painting and Drawing may not take this course for credit.

NOTE: A limited number of spaces are open to Studio Arts Department students.

NOTE: Students who have received credit for a PTNG course may not take this course for credit.

PTNG 298 *Special Topics in Painting* (3 credits)

Prerequisite: See N.B. number (1). A studio course which provides an opportunity for the study of more specialized aspects of painting.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

PTNG 299 *Special Topics in Painting* (6 credits)

Prerequisite: See N.B. number (1). A studio course which provides an opportunity for the study of more specialized aspects of painting.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

PTNG 300 *Painting II* (6 credits)

Prerequisite: PTNG 200. This studio course is an intermediate painting class in which directed projects allow students to explore a variety of approaches to the medium and to begin to develop a more personal visual language based on the skill sets acquired at the 200 level. Historical and contemporary issues in art practice are addressed in this course.

PTNG 310 *Painting and Popular Culture I* (6 credits)

Prerequisite: PTNG 200. A studio course designed to focus on the relationship between painting and popular culture. The course explores the impact of photography, cinema, advertising, television, comic books, pulp fiction, popular music, and digital media on the conventions of painting.

NOTE: Students who have received credit for this topic under a PTNG 399 number may not take this course for credit.

PTNG 312 *Body, Representation and Information I* (6 credits)

Prerequisite: PTNG 200. This studio course addresses contemporary art issues in painting, exploring body information in relation to questions of power, race, gender, and sexuality.

NOTE: Students who have received credit for this topic under a PTNG 399 number may not take this course for credit.

PTNG 314 *Life in the Round: Painting the Figure from Observation I* (6 credits)

Prerequisite: PTNG 200. This studio course focuses on the experience of seeing and depicting the living human body in all its complexity and presence.

NOTE: Students who have received credit for this topic under a PTNG 399 number may not take this course for credit.

PTNG 316 *Abstract Painting I* (6 credits)

Prerequisite: PTNG 200. A studio course designed to focus on the historical and contemporary practice of abstraction.

NOTE: Students who have received credit for this topic under a PTNG 399 number may not take this course for credit.

PTNG 320 *Studio/Seminar in Painting and Drawing* (6 credits)

Prerequisite: DRAW 200; PTNG 200; or written permission of the Department. A combination studio/seminar in which advanced ideas in painting and drawing are addressed. Special topics of approximately one month duration are presented by guest artists from within and outside the Faculty.

PTNG 398 *Special Topics in Painting* (3 credits)

Prerequisite: PTNG 200. A studio course which provides an opportunity for the study of more specialized aspects of painting. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

PTNG 399 *Special Topics in Painting* (6 credits)

Prerequisite: PTNG 200; written permission of the Department. A studio course which provides an opportunity for the study of more specialized aspects of painting.

PTNG 400 *Painting III* (6 credits)

Prerequisite: Any 300-level PTNG course. An advanced painting class in which students develop a series of independent projects that allow them to create a coherent body of work in painting and to situate it within contemporary practice. Independent studio production may be supplemented by readings, lectures, seminars, museum/gallery visits, and visiting artists.

PTNG 410 *Painting and Popular Culture II* (6 credits)

Prerequisite: Any 300-level PTNG course. An advanced-level studio course designed to focus on the relationship between painting and popular culture. This course explores the impact of photography, cinema, advertising, television, comic books, pulp fiction, popular music, and digital media on the conventions of painting.

PTNG 412 *Body, Representation and Information II* (6 credits)

Prerequisite: Any 300-level PTNG course. This advanced-level studio course addresses contemporary art issues and their representation in painting, exploring body information in relation to questions of power, race, gender, and sexuality.

NOTE: Students who have received credit for this topic under a PTNG 499 number may not take this course for credit.

PTNG 414 *Life in the Round: Painting the Figure from Observation II* (6 credits)

Prerequisite: Any 300-level PTNG course. This advanced-level studio course focuses on the experience of seeing and depicting the living human body in all its complexity and presence.

NOTE: Students who have received credit for this topic under a PTNG 499 number may not take this course for credit.

PTNG 416 Abstract Painting II (6 credits)

Prerequisite: Any 300-level PTNG course. An advanced-level studio class designed to focus on the historical and contemporary practice of abstraction.

NOTE: Students who have received credit for this topic under a PTNG 499 number may not take this course for credit.

PTNG 418 Between the Wall and the Viewer (6 credits)

Prerequisite: Any 300-level Studio Art course. An installation studio course taught by faculty in the Painting and Drawing area that encourages students to create work in the context of an expanded field. It includes experimental pictorial, spatial, performative, and conceptual responses to site considerations using collage/assemblage, shaped canvases, text/image, objects, paint, and unconventional materials.

NOTE: Students who have received credit for DRAW 418, or for this topic under a PTNG or DRAW 499 number, may not take this course for credit.

PTNG 420 Seminar/Workshop in Painting (6 credits)

Prerequisite: PTNG 320 or written permission of the Department. An advanced studio in painting having its principal emphasis in studio practice, but developing further the theoretical concepts introduced in PTNG 320.

NOTE: Students who have received credit for ART 320 may not take this course for credit.

PTNG 430 Women and Painting (6 credits)

Prerequisite: PTNG 200 or written permission of the Department. A studio/seminar course in which students are encouraged to explore their world in painting and consider their practice from the point of view of women's experience, individually and collectively.

PTNG 440 Collage (6 credits)

Prerequisite: Written permission of the Department. An exploration of collage as a means of expression evolving from the historical and artistic traditions of painting and drawing.

PTNG 450 Painting IV (6 credits)

Prerequisite: PTNG 400. An advanced painting class in which students develop a series of independent projects that allow them to create a coherent body of work in painting and to situate it within contemporary practice. Independent studio production may be supplemented by readings, lectures, seminars, museum/gallery visits, and visiting artists.

PTNG 460 Materials and Methods of the Artist (6 credits)

Prerequisite: DRAW 300; PTNG 300 or written permission of the Department. Through a series of special projects in drawing and painting, this course familiarizes the student with historical materials and techniques, and with other aspects of the artist's concerns.

NOTE: Students who have received credit for ART 420 may not take this course for credit.

PTNG 470 Independent Study (6 credits)

Prerequisite: 48 credits completed in degree program; a 400-level PTNG course previously or concurrently; and written permission of the Department. This course provides a limited number of students the opportunity to pursue advanced studies in painting under the supervision of a full-time painting faculty member. A clearly defined written agreement between the student and the instructor involved is required before the independent study is undertaken. This agreement should clearly state the nature of the student's research, and the scope of the project and schedule of work should be equivalent to the workload of a six-credit course. A minimum cumulative GPA of 3.5 is required before requesting permission.

PTNG 471 Independent Study I (3 credits)

Prerequisite: 48 credits completed in degree program; a 400-level PTNG course previously or concurrently; and written permission of the Department. This course provides a limited number of students the opportunity to pursue advanced studies in painting under the supervision of a full-time painting faculty member. A clearly defined written agreement between the student and the instructor involved is required before the independent study is undertaken. This agreement should clearly state the nature of the student's research, and the scope of the project and schedule of work should be equivalent to the workload of a three-credit course. A minimum cumulative GPA of 3.5 is required before requesting permission.

PTNG 472 Independent Study II (3 credits)

Prerequisite: 48 credits completed in degree program; a 400-level PTNG course previously or concurrently; and written permission of the Department. This course provides a limited number of students the opportunity to pursue advanced studies in painting under the supervision of a full-time painting faculty member. A clearly defined written agreement between the student and the instructor involved is required before the independent study is undertaken. This agreement should clearly state the nature of the student's research, and the scope of the project and schedule of work should be equivalent to the workload of a three-credit course. A minimum cumulative GPA of 3.5 is required before requesting permission.

PTNG 498 Special Topics in Painting (3 credits)

A course for advanced students which provides an opportunity for the study of more specialized areas in painting. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

PTNG 499 Special Topics in Painting (6 credits)

A course for advanced students which provides an opportunity for the study of more specialized areas in painting. Specific topics for this course, and prerequisites relevant in each case, are stated in the Undergraduate Class Schedule.

Photography:

PHOT 201 *Introduction to Colour Photography* (3 credits)

Prerequisite: Enrolment in a BFA degree program excluding the Major in Photography, or permission of the program coordinator as determined by portfolio submission. Students should consult the Department of Studio Arts website for more information about the portfolio submission process. This introductory-level course covers fundamental techniques specific to colour photography including basic camera functions, film exposure, and printing.

NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

NOTE: Students in the Major in Photography may not take this course for credit.

NOTE: A limited number of spaces are open to Studio Arts Department students.

NOTE: Students who have received credit for a PHOT course may not take this course for credit.

PHOT 210 *Foundations in Photographic Vision Theory and Practice I* (6 credits)

Prerequisite: Enrolment in the Major in Photography, or 24 credits in a specialization/major in the Faculty of Fine Arts. In this course, students investigate and examine the numerous aspects of photography's complex history, aesthetics, and processes, as well as different camera and darkroom techniques specific to colour photography. Students learn how to control the camera, expose film properly (transparency and negative), develop good printing skills in colour, and produce a coherent body of work. They should become aware of how colour contributes to the structure and meaning of photographs. Other topics include the history of colour photography and aesthetic and conceptual issues in the work of contemporary photographers. Students are expected to work on technical exercises and produce a final portfolio which is content-driven, demonstrates technical proficiency, and expresses the individual's artistic interest and vision.

NOTE: Each student's work is evaluated by a jury of Photography faculty at the end of each term.

NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

PHOT 211 *Black-and-White Photography I* (3 credits)

Prerequisite: PHOT 210 and ARTH 267 previously or concurrently; enrolment in the Major in Photography; or written permission of the program director. A studio course introducing the use of black and white as photographic process, parallel to colour production and practice taught in PHOT 210. Students are taught basic technical skills, film processing, darkroom techniques and printing. Students are also introduced to black-and-white photographic tradition and aesthetics. Students must produce a final portfolio that is content-driven, demonstrates technical proficiency, and expresses personal artistic interests and vision.

NOTE: Each student's work is evaluated by a jury of Photography faculty at the end of the term.

NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

PHOT 221 *Colour Photography I* (3 credits)

Prerequisite: PHOT 210 and ARTH 267 previously or concurrently; enrolment in the Major in Photography; or written permission of the program director. In this course, students become aware of how colour contributes to the structure and meaning of photographs. Topics include the history of colour and aesthetic and conceptual issues in the work of contemporary photographers. Students are expected to achieve a basic level of expertise with the techniques of colour and to make high-quality prints. The goal in this course is for each student to produce a final portfolio which demonstrates technical proficiency, is content-driven, and expresses the individual's personal artistic interests and vision.

NOTE: Each student's work is evaluated by a jury of Photography faculty at the end of the term.

NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

PHOT 300 *Photographic Vision: Theory and Practice II* (6 credits)

Prerequisite: PHOT 210 and ARTH 267 and enrolment in the Major in Photography; or written permission of the program director. The purpose of this studio course is to provide a framework within which students pursue their photographic practice at an intermediate level. Students are encouraged to explore concepts and technical components in a long-term project. They develop a photographic language which is specific to their own practice and learn from the work of other contemporary artists. The final portfolio is content-driven and expresses personal artistic vision.

NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

NOTE: Each student's work is evaluated by a jury of Photography faculty at the end of each term.

PHOT 301 *Black-and-White II Fine Art Printing* (3 credits)

Prerequisite: PHOT 210, 211, 331; enrolment in the Major in Photography; or written permission of the program director. A continuation of PHOT 211, this studio course explores further techniques in fine art black-and-white printing. Students are introduced to advanced darkroom processes, mural printing, and quad tone digital printing. Students must produce a final portfolio that is content-driven, demonstrates technical proficiency, and expresses personal artistic interests and vision.

NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

PHOT 311 *Large Format Photography I* (3 credits)

Prerequisite: PHOT 210, 211; ARTH 267; enrolment in the Major in Photography; or written permission of the program director. A studio course introducing large format photography, its techniques and application. Demonstrations cover the basics of view camera operation, light metering, sheet film exposure, development, and advanced printing. Assignments based on traditional genres encourage ease with all aspects of large format use and their personal applications.

NOTE: Each student's work is evaluated by a jury of Photography faculty at the end of the term.

NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

PHOT 312 *Large Format Photography II* (3 credits)

Prerequisite: PHOT 210, 211, 311; ARTH 267; enrolment in the Major in Photography; or written permission of the Department. A studio course directed towards the development of an individual approach to view camera photography. Various uses of advanced techniques are also discussed. Emphasis is put on the development of a coherent portfolio of prints expressing personal concerns.

NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

PHOT 322 *Colour Photography II* (3 credits)

Prerequisite: PHOT 210; PHOT 221 or 321; ARTH 267; and enrolment in the Major in Photography, or written permission of the program director. A continuation of PHOT 221, this course explores further techniques in colour photography and advanced colour printing. Aesthetic issues such as changing attitudes towards the colour medium and its role in documentary work are discussed. A final portfolio reflects the students' personal approach to colour photography.

NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

PHOT 331 *Digital Photography I* (3 credits)

Prerequisite: PHOT 210; PHOT 221 previously or concurrently; and enrolment in the Major in Photography, or written permission of the program director. An introductory studio course investigating the technical and creative aspects of digital photography. This course provides students with an understanding of the digital image and a practical application of the tools within their personal approach to photography. Students explore the production of digital photographs, emphasizing the manipulation of images with software and the preparation for different formats. Issues related to the use of digital imagery within the larger context of photography are explored.

NOTE: Students who have received credit for this topic under a PHOT 498 number may not take this course for credit.

NOTE: Students are required to bear the cost of removable storage devices, printing, and other materials.

PHOT 332 *Digital Photography II* (3 credits)

Prerequisite: PHOT 331 and enrolment in the Major in Photography, or written permission of the Department. This advanced course expands on the basic control skills and creative aspects of digital technology by implementing personal approaches to the use of technology. Emphasis is on the creative development and advanced use of technology for the production of a portfolio.

NOTE: Students who have received credit for this topic under a PHOT 498 number may not take this course for credit.

NOTE: Students are required to bear the cost of removable storage devices, printing, and other materials.

PHOT 398 *Special Topics in Photography* (3 credits)

Prerequisite: Written permission of the Department. An opportunity for the study of limited and more specialized aspects of photography.

PHOT 399 *Special Topics in Photography* (6 credits)

Prerequisite: Written permission of the Department. An opportunity for the study of limited and more specialized aspects of photography.

PHOT 400 *Advanced Workshop in Photography* (6 credits)

Prerequisite: 48 credits in the Major in Photography including PHOT 300, ARTH 359, or written permission of the program director. A studio course in which students pursue one or more extended photographic projects in black and white and/or digital. Topics related to contemporary photography are presented in a seminar fashion.

NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

PHOT 470 *Professional Internship* (6 credits)

Prerequisite: 48 credits in the Major in Photography and written permission of the Department. A student wishing to work in an apprentice capacity with an established photographic artist, or wishing to pursue research in photographic criticism, museum work, publication, or other related endeavours may apply for academic credit. The internship will be carried out under the joint supervision of a qualified professional (from within or without the University) and a full-time Photography faculty member. A clearly defined agreement between the Department, the student, and the artist or institution involved will be arrived at before the internship is undertaken. This agreement should state clearly the nature of the student's participation and the hours of work expected. Projects receiving approval for the internship credits must demonstrate appreciable learning potential for the student.

PHOT 471 *Professional Internship I* (3 credits)

Prerequisite: 48 credits in the Major in Photography and written permission of the Department. A student wishing to work in an apprentice capacity with an established photographic artist, or wishing to pursue research in photographic criticism, museum work, publication, or other related endeavours may apply for academic credit. The internship will be carried out under the joint supervision of a qualified professional (from within or without the University) and a full-time Photography faculty member. A clearly defined agreement between the Department, the student, and the artist or institution involved will be arrived at before the internship is undertaken. This agreement should state clearly the nature of the student's participation and the hours of work expected. Projects receiving approval for the internship credits must demonstrate appreciable learning potential for the student.

PHOT 472 *Professional Internship II* (3 credits)

Prerequisite: 48 credits in the Major in Photography and written permission of the Department. Students who wish additional internships in a professional milieu may take this course.

PHOT 480 *Independent Study* (6 credits)

Prerequisite: 48 credits completed in degree program; a 400-level PHOT course previously or concurrently; and written permission of the Department. This course provides a limited number of students the opportunity to pursue advanced studies in photography under the supervision of a full-time photography faculty member. A clearly defined written agreement between the student and the instructor involved is required before the independent study is undertaken. This agreement should clearly state the nature of the student's research, and the scope of the project and schedule of work should be equivalent to the workload of a six-credit course. A minimum cumulative GPA of 3.5 is required before requesting permission.

PHOT 481 *Independent Study I* (3 credits)

Prerequisite: 48 credits completed in degree program; a 400-level PHOT course previously or concurrently; and written permission of the Department. This course provides a limited number of students the opportunity to pursue advanced studies in photography under the supervision of a full-time photography faculty member. A clearly defined written agreement between the student and the instructor involved is required before the independent study is undertaken. This agreement should clearly state the nature of the student's research, and the scope of the project and schedule of work should be equivalent to the workload of a three-credit course. A minimum cumulative GPA of 3.5 is required before requesting permission.

PHOT 482 *Independent Study II* (3 credits)

Prerequisite: 48 credits completed in degree program; a 400-level PHOT course previously or concurrently; and written permission of the Department. This course provides a limited number of students the opportunity to pursue advanced studies in photography under the supervision of a full-time photography faculty member. A clearly defined written agreement between the student and the instructor involved is required before the independent study is undertaken. This agreement should clearly state the nature of the student's research, and the scope of the project and schedule of work should be equivalent to the workload of a three-credit course. A minimum cumulative GPA of 3.5 is required before requesting permission.

PHOT 498 *Special Topics in Photography* (3 credits)

Prerequisite: Written permission of the Department. A course for advanced students which provides an opportunity for the study of limited and more specialized aspects of photography.

PHOT 499 *Special Topics in Photography* (6 credits)

Prerequisite: Written permission of the Department. A course for advanced students which provides an opportunity for the study of limited and more specialized aspects of photography.

Print Media:

PRIN 211 *Intaglio I* (3 credits)

Prerequisite: See N.B. number (1). An introductory studio course in intaglio techniques with an emphasis on creative imagery. This course covers traditional techniques and photo-based processes. Assignments, lectures, and critiques focus on theoretical, historical, and aesthetic issues in contemporary print media.

PRIN 221 *Lithography I* (3 credits)

Prerequisite: See N.B. number (1). An introductory studio course in lithographic techniques with an emphasis on creative imagery. This course covers drawing and photo-based processes on stone and plate. Assignments, lectures, and critiques focus on theoretical, historical, and aesthetic issues in contemporary print media.

PRIN 231 *Screen Printing I* (3 credits)

Prerequisite: See N.B. number (1). An introductory studio course in the basic techniques of screen printing with an emphasis on creative imagery. This course covers stencil techniques using digital and hand-drawn processes. Assignments, lectures, and critiques focus on theoretical, historical, and aesthetic issues in contemporary print media.

PRIN 241 *Processes in Digital Print Media I* (3 credits)

Prerequisite: See N.B. number (1). An introductory studio course in the basic concepts of contemporary digital imaging and print applications. This course covers file creation and layers for multi-plate hand-printing. The creation of multiples through traditional, non-traditional, and other historical technologies is also explored. Lectures and critiques focus on theoretical, critical, and aesthetic issues in contemporary digital print media.

NOTE: Students who have received credit for PRIN 341 or 351 may not take this course for credit.

PRIN 271 *Contemporary Print Processes I* (3 credits)

Prerequisite: See N.B. number (1). This introductory studio course addresses special topics in print processes and new technologies. Students create a portfolio of artwork that demonstrates their research.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

PRIN 291 *Contemporary Relief and Woodcut I* (3 credits)

Prerequisite: See N.B. number (1). An introductory studio course in the basic techniques of woodcut and relief printing with an emphasis on creative imagery. This course covers the basic principles of cutting and hand-printing on wood, linoleum, and other materials. Assignments, lectures, and critiques focus on theoretical, historical, and aesthetic issues in contemporary print media.

NOTE: Students who have received credit for this topic under a PRIN 371 number may not take this course for credit.

PRIN 311 *Intaglio II* (3 credits)

Prerequisite: PRIN 211; six credits in Print Media; second-year standing* in a Fine Arts program; or written permission of the program director. An intermediate intaglio studio course with an emphasis on individual creative and theoretical development through experimentation and innovation. This course explores multi-plate image making, including drawing and photographic applications in print, advanced proofing, and printing processes. Group and individual critiques and discussions emphasize problem solving and critical analysis in the creation of personal imagery. Students are required to develop a coherent portfolio that demonstrates their engagement in contemporary print practice.

*24 credits completed in degree program.

PRIN 321 *Lithography II* (3 credits)

Prerequisite: PRIN 221; six credits in Print Media; second-year standing* in a Fine Arts program; or written permission of the program director. An intermediate lithography studio course with emphasis on individual creative and theoretical development through experimentation and innovation. This course explores hand-drawn, digital, and photographic processes through stone and plate lithography with an emphasis on colour printing. Group and individual critiques and discussions emphasize problem solving and critical analysis in the creation of personal imagery. Students are required to develop a coherent portfolio that demonstrates their engagement in contemporary print theory and practice.

*24 credits completed in degree program.

PRIN 331 *Screen Printing II* (3 credits)

Prerequisite: PRIN 231; six credits in Print Media; second-year standing* in a Fine Arts program; or written permission of the program director. An intermediate screen-printing studio course with an emphasis on individual creative and theoretical development through experimentation and innovation. This course provides the opportunity for continued research in drawing, photographic and digital applications, colour printing, alternative printing surfaces, and the combination of print processes. Group and individual critiques and discussions emphasize problem solving and critical analysis in the creation of personal imagery. Students are required to develop a coherent portfolio that demonstrates their engagement in contemporary print theory and practice.

*24 credits completed in degree program.

PRIN 341 *Processes in Digital Print Media II* (3 credits)

Prerequisite: PRIN 241; six credits in Print Media; second-year standing* in a Fine Arts program; or written permission of the program director. An intermediate studio course with an emphasis on concepts of digital imaging, print applications, file creation, and layers for multi-plate hand-printing and file export to various digital print formats. Lectures and critiques focus on theoretical, critical, and aesthetic issues in contemporary digital print media. Students are required to develop a coherent portfolio that demonstrates their involvement in contemporary print theory and practice.

*24 credits completed in degree program.

PRIN 365 *The Artist's Book as Object* (3 credits)

Prerequisite: Nine credits in Print Media; second-year standing* in a Fine Arts program; or written permission of the program director. An intermediate studio course with an emphasis on individual creative and theoretical development through experimentation and innovation. This course explores book structures, bindings, and print processes for the creation of artist books as objects. Group and individual critiques and discussions emphasize problem solving and critical analysis in the creation of personal imagery.

NOTE: Students who have received credit for this topic under a PRIN 371 number may not take this course for credit.

*24 credits completed in degree program.

PRIN 366 *Aspects of the Artist Book* (3 credits)

Prerequisite: Nine credits from Print Media; second-year standing* in a Fine Arts program; or written permission of the program director. An intermediate studio course with an emphasis on creative and theoretical development through experimentation and innovation. Through lectures, demonstrations, and assignments on the technical and conceptual considerations in creating traditional and non-traditional book forms, this course explores book arts from the vantage point of print media examining the broad definition of the terms "artist book" or "book art." Group and individual critiques and discussions emphasize problem solving and critical analysis in the creation of personal imagery. This course has a compulsory computer lab component.

NOTE: Students are required to bear the cost of materials.

NOTE: Students who have received credit for this topic under a PRIN 381 number may not take this course for credit.

*24 credits completed in degree program.

PRIN 371 *Contemporary Print Processes II* (3 credits)

Prerequisite: Nine credits in Print Media; second-year standing* in a Fine Arts program; or written permission of the program director. This intermediate studio course addresses topics in print processes and technologies. Students create a portfolio of artwork that demonstrates their research.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

*24 credits completed in degree program.

PRIN 381 *Aspects of Print Media* (3 credits)

Prerequisite: Nine credits in Print Media; second-year standing* in a Fine Arts program; or written permission of the program director. An intermediate studio course that focuses on theoretical issues and practices in contemporary print media. Students create a body of artwork that demonstrates critical thinking and research on the featured topic.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

*24 credits completed in degree program.

PRIN 391 *Contemporary Relief and Woodcut II* (3 credits)

Prerequisite: PRIN 291; six credits in Print Media; second-year standing* in a Fine Arts program; or written permission of the program director. An intermediate studio course in the techniques of woodcut and relief printing with an emphasis on creation. This course explores hand-drawn, digital and related processes through woodcut and relief. Colour and advanced printing are covered. Group and individual critiques and discussions emphasize problem solving and critical analysis in the creation of personal imagery. Students are required to develop a coherent portfolio that demonstrates their involvement in contemporary print theory and practice.

NOTE: Students who have received credit for this topic under a PRIN 371 number may not take this course for credit.

*24 credits completed in degree program.

PRIN 398 *Special Topics in Print Media* (3 credits)

Prerequisite: Nine credits in Print Media; second-year standing* in a Fine Arts program; or written permission of the program director. An intermediate studio course that examines ideas and practices in contemporary print media, students produce printed images that reflect their research and critical thinking on the specific topic.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

*24 credits completed in degree program.

PRIN 399 *Special Topics in Print Media* (6 credits)

Prerequisite: Nine credits in Print Media; second-year standing* in a Fine Arts program; or written permission of the program director. An intermediate studio course that examines ideas and practices in contemporary print media, students produce printed images that reflect their research and critical thinking on the specific topic.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

*24 credits completed in degree program.

PRIN 411 *Intaglio III* (3 credits)

Prerequisite: PRIN 311; nine credits in Print Media; or written permission of the program director. An advanced intaglio studio course with an emphasis on individual creative and theoretical development through experimentation. This course explores digital and photo-generated imagery, multiple-plate colour processes, alternative print surfaces, combined print techniques, and new technologies. Group and individual critiques and discussions emphasize problem solving and critical analysis in the creation of personal imagery. Students are required to develop a coherent portfolio that demonstrates their engagement in contemporary print theory and practice.

PRIN 421 *Lithography III* (3 credits)

Prerequisite: PRIN 321; nine credits in Print Media, or written permission of the program director. An advanced lithography studio course with an emphasis on individual creative and theoretical development through experimentation and innovation. This course explores advanced techniques in stone and plate lithography, hand-drawn, photographic, and digitally generated imagery. Group and individual critiques and discussions emphasize problem solving and critical analysis in the creation of personal imagery. Students are required to develop a coherent portfolio that demonstrates their engagement in contemporary print theory and practice.

PRIN 431 *Screen Printing III* (3 credits)

Prerequisite: PRIN 331; nine credits in Print Media, or written permission of the program director. An advanced screen-printing studio course with an emphasis on individual creative and theoretical development through experimentation and innovation. This course investigates hand-drawn, photographic and digital print applications, and combined techniques. Group and individual critiques and discussions emphasize problem solving and critical analysis in the creation of personal imagery. Students are required to develop a coherent portfolio that demonstrates their engagement in contemporary print theory and practice.

PRIN 441 *Advanced Processes in Digital Print Media III* (3 credits)

Prerequisite: PRIN 341; nine credits in Print Media; or written permission of the program director. An advanced digital studio course with an emphasis on individual creative and theoretical development through experimentation and innovation. In this course, students develop an independent interdisciplinary research project that investigates the integration of digital and traditional reproduction technologies. Group and individual critiques and discussions emphasize problem solving and critical analysis in the creation of personal imagery. Students are required to develop a coherent portfolio that demonstrates their engagement in contemporary print theory and practice.

PRIN 451 *Advanced Projects in Print Media I* (3 credits)

Prerequisite: Any 300-level Print Media course or written permission of the program director. An advanced studio course where students propose and complete print projects in consultation with the instructor. Students design projects according to their interests and established technical proficiency. The course emphasizes individual practice within the context of informed discussion, group and individual critiques, gallery and museum visits, and may include an exhibition.

NOTE: Students who want advanced technical information in a particular process should enrol in 300- or 400-level courses of intaglio, screen printing, lithography, or digital print processes.

PRIN 452 *Advanced Projects in Print Media II* (3 credits)

Prerequisite: PRIN 451 or written permission of the program director. An advanced studio course where students propose and complete print projects in consultation with the instructor. Students design projects according to their interests and established technical proficiency. The course emphasizes individual practice within the context of informed discussion, group and individual

critiques, gallery and museum visits, and may include an exhibition. This course is a continuation of PRIN 451.

NOTE: Students who want advanced technical information in a particular process should enrol in 300- or 400-level courses of intaglio, screen printing, lithography or digital print processes.

PRIN 470 *Independent Study in Print Media* (6 credits)

Prerequisite: 48 credits completed in degree program; a 400-level PRIN course previously or concurrently; and written permission of the Department. This course provides a limited number of students the opportunity to pursue advanced studies in print media under the supervision of a full-time print faculty member. A clearly defined written agreement between the student and the instructor involved is required before the independent study is undertaken. This agreement should clearly state the nature of the student's research, and the scope of the project and schedule of work should be equivalent to the workload of a six-credit course. A minimum cumulative GPA of 3.5 is required before requesting permission.

PRIN 471 *Independent Study in Print Media I* (3 credits)

Prerequisite: 48 credits completed in degree program; a 400-level PRIN course previously or concurrently; and written permission of the Department. This course provides a limited number of students the opportunity to pursue advanced studies in print media under the supervision of a full-time print faculty member. A clearly defined written agreement between the student and the instructor involved is required before the independent study is undertaken. This agreement should clearly state the nature of the student's research, and the scope of the project and schedule of work should be equivalent to the workload of a three-credit course. A minimum cumulative GPA of 3.5 is required before requesting permission.

PRIN 472 *Independent Study in Print Media II* (3 credits)

Prerequisite: 48 credits completed in degree program; a 400-level PRIN course previously or concurrently; and written permission of the Department. This course provides a limited number of students the opportunity to pursue advanced studies in print media under the supervision of a full-time print faculty member. A clearly defined written agreement between the student and the instructor involved is required before the independent study is undertaken. This agreement should clearly state the nature of the student's research, and the scope of the project and schedule of work should be equivalent to the workload of a three-credit course. A minimum cumulative GPA of 3.5 is required before requesting permission.

PRIN 481 *Professional Internship* (3 credits)

Prerequisite: Written permission of the Department. Internships are for students who wish to obtain practical experience by working as an apprentice in a professional environment, or who would like to pursue research in the curating of prints, print criticism, or other related experience in print media, and receive academic credit for the activity. Approval of the project will be based on the demonstrable learning potential of the activity. Students are required to submit an internship proposal that clearly defines the objective of the activity, appropriate workload (equivalent to the hours required for a three-credit course), nature of participation, and supervisory schedules. The internship will be jointly supervised by a faculty member and a qualified professional. It is the student's responsibility to obtain approval for the proposal from a program advisor, including any required contractual agreements, before the start of the internship.

PRIN 498 *Special Topics in Print Media* (3 credits)

Prerequisite: Any 300-level Print Media course or written permission of the program director. An advanced studio course with an emphasis on individual creative and theoretical development through experimentation and innovation. In this course, students produce printed images that reflect their research and critical thinking on the specific topic. Group and individual critiques and discussions emphasize problem solving and critical analysis in the creation of personal imagery. Students are required to develop a coherent portfolio that demonstrates their engagement in contemporary print theory and practice.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

PRIN 499 *Special Topics in Print Media* (6 credits)

Prerequisite: Any 300-level Print Media course or written permission of the program director. An advanced studio course with an emphasis on individual creative and theoretical development through experimentation and innovation. In this course, students produce printed images that reflect their research and critical thinking on the specific topic. Group and individual critiques and discussions emphasize problem solving and critical analysis in the creation of personal imagery. Students are required to develop a coherent portfolio that demonstrates their engagement in contemporary print theory and practice.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

Sculpture:

SCUL 201 *Introduction to Sculpture and Installation* (3 credits)

Prerequisite: Enrolment in a BFA degree program excluding the Major in Sculpture, or permission of the program coordinator as determined by portfolio submission. Students should consult the Department of Studio Arts website for more information about the portfolio submission process. This introductory-level course covers fundamental ideas and techniques central to three-dimensional art making within the context of contemporary art. Students explore elementary sculptural concepts and technical processes, including assemblage, wood-working and mould making/casting.

NOTE: Students in the Major in Sculpture may not take this course for credit.

NOTE: A limited number of spaces are open to Studio Arts Department students.

NOTE: Students who have received credit for a SCUL course may not take this course for credit.

SCUL 210 *Sculpture and Material Practices* (6 credits)

Prerequisite: See N.B. number (1). In this studio-based course, students explore the expansive field of contemporary sculpture and the range of materials and ideas employed by contemporary artists working in the discipline. Students present their sculptures through critiques, class discussions and individual consultations. Students gain exposure to metal work, wood work, and mould-making/casting, as well as experience in developing three-dimensional artistic works within the context of contemporary sculpture.

SCUL 251 *Sculpture/Mechanics* (3 credits)

Prerequisite: Enrolment in the Intermedia (Video, Performance and Electronic Arts) program or written permission of the Department. This studio course introduces students to animating sculpture through a variety of techniques such as moving joints, gear, chain, and pulley systems, and motion converters, leading to more complex assemblies in animating static form. Students develop basic skills in reading and drawing blueprints, as well as in measuring and marking techniques for application in metal, wood, mould-making, and other applicable materials.

SCUL 310 *Sculpture and Spatial Practices* (6 credits)

Prerequisite: SCUL 210 or permission of the Department. This course builds upon the expansive field of contemporary sculpture, with an emphasis on the development of an individual art practice, including installation, intervention, public artworks, action/performance, and object making. Students build upon their awareness of contemporary sculptural practices, contexts and issues. Students present their artworks through critiques, class discussions and individual consultations. Further exposure and competence are developed in metal work, wood work and mould-making/casting.

NOTE: Students who have received credit for SCUL 300 may not take this course for credit.

SCUL 311 *Metal Casting: Bronze and Aluminum I* (3 credits)

Prerequisite: SCUL 210 or CERA 230 or permission of the Department. This course includes an introduction to the sculptural histories and contemporary contexts of bronze casting, and the technical processes of casting. Students also develop their conceptual skills in making contemporary sculpture with this traditional method. The course includes slide lectures, class discussions, a final critique and technical demonstrations.

NOTE: A course fee for materials is required.

SCUL 312 *Metal Casting: Bronze and Aluminum II* (3 credits)

Prerequisite: SCUL 311. A continuation of SCUL 311. In this advanced course, students learn to cast larger or more complex artworks in bronze or aluminum. Depending on the student's project, this process may involve organic burn-out techniques, multiples or multi-part casting fabrication, or casting metal in sections to be welded together.

NOTE: A course fee for materials is required.

SCUL 396 *Digital Sculpture* (3 credits)

Prerequisite: Permission of the Department. This studio course introduces 3D software for sculptors, covering modelling, drafting, and rendering for both real and virtual output, using advanced manual and automated processes.

SCUL 397 *Intermediate Digital Sculpture II* (3 credits)

Prerequisite: SCUL 396 or permission of the Department. This course provides greater experience and advanced skills in 3D modelling. Students gain sufficient understanding of 3D modelling to support independent work, producing not only virtual sculptures but also physical sculptures using manual or automated processes. Issues related to the use of technology within the larger context of sculpture are explored.

SCUL 398 *Special Topics in Sculpture* (3 credits)

Prerequisite: Third-year standing*; written permission of the Department. A workshop/ seminar course providing an opportunity for the study of specialized aspects of sculpture.

**Fewer than 33 credits remaining in the degree program.*

SCUL 399 *Special Topics in Sculpture* (6 credits)

Prerequisite: Written permission of the Department. A workshop/seminar course providing an opportunity for the study of specialized aspects in sculpture.

SCUL 410 *Sculpture as Practice* (6 credits)

Prerequisite: SCUL 310 or permission of the Department. An advanced sculpture class in which students develop and create a body of artwork situated within the contexts of contemporary sculpture. Diversity of sculptural practices, research and critical discourse are encouraged to promote professional autonomy in students' studio work. Students present their artworks through critiques, class discussions and individual consultations.

NOTE: Students who have received credit for SCUL 400 may not take this course for credit.

SCUL 450 *Independent Study* (6 credits)

Prerequisite: 48 credits completed in degree program; SCUL 410 (400) previously or concurrently; and written permission of the Department. This course provides a limited number of students the opportunity to pursue advanced studies in sculpture under the supervision of a full-time sculpture faculty member. A clearly defined written agreement between the student and the instructor involved is required before the independent study is undertaken. This agreement should clearly state the nature of the student's research, and the scope of the project and schedule of work should be equivalent to the workload of a six-credit course. A minimum cumulative GPA of 3.5 is required before requesting permission.

SCUL 451 *Independent Study I* (3 credits)

Prerequisite: 48 credits completed in degree program; SCUL 410 (400) previously or concurrently; and written permission of the Department. This course provides a limited number of students the opportunity to pursue advanced studies in sculpture under the supervision of a full-time sculpture faculty member. A clearly defined written agreement between the student and the instructor involved is required before the independent study is undertaken. This agreement should clearly state the nature of the student's research, and the scope of the project and schedule of work should be equivalent to the workload of a three-credit course. A minimum cumulative GPA of 3.5 is required before requesting permission.

SCUL 452 *Independent Study II* (3 credits)

Prerequisite: 48 credits completed in degree program; SCUL 410 (400) previously or concurrently; and written permission of the Department. This course provides a limited number of students the opportunity to pursue advanced studies in sculpture under the supervision of a full-time sculpture faculty member. A clearly defined written agreement between the student and the instructor involved is required before the independent study is undertaken. This agreement should clearly state the nature of the student's research, and the scope of the project and schedule of work should be equivalent to the workload of a three-credit course. A minimum cumulative GPA of 3.5 is required before requesting permission.

SCUL 490 *Advanced Studio Practice* (6 credits)

Prerequisite: Enrolment in the Major in Sculpture, in Ceramics, or in Fibres and Material Practices; or written permission of the Department. A studio course providing an opportunity for the advanced student to work in an intimate context within a studio setting, structured around current topics of theoretical and practical importance.

Video:

VDEO 350 *Video History and Theory* (6 credits)

A survey lecture course introducing the history and theory of art video practice since its inception in the 1960s. The course locates the roots of this art form in such divergent impulses as conceptualism, community activism, technological experimentation, and broadcast television, as well as in narrative and documentary traditions. In addition, regional Canadian video artists and co-operatives are situated within international historical trends and the development of post-modern and other theoretical perspectives. Weekly screenings.

Faculty

Chair

URSULA NEUBURG-DENZER, PhD *Free University of Berlin*; Associate Professor

Professor

ANA CAPPELLUTO, MEd *McGill University*

Associate Professors

NOAH DREW, MFA *Temple University*

GENE GIBBONS, MA *West Virginia University*, MFA *Purdue University*

ROBERT REID, MFA *Université du Québec à Montréal*

LUIS C. SOTELO CASTRO, PhD *University of Northampton*

MARK SUSSMAN, PhD *New York University*

Assistant Professors

JESSICA CARMICHAEL, MFA *University of Alberta*

SHAUNA JANSSEN, PhD *Concordia University*

Senior Lecturer

RAYMOND MARIUS BOUCHER, MA *Université du Québec à Montréal*

For the complete list of faculty members, please consult the Department website.

Location

Sir George Williams Campus

GM Building, Room: 500-01

Tel.: 514-848-2424, ext. 4555

Email: theatre@concordia.ca

Website: concordia.ca/finearts/theatre

Department Objectives

The Theatre Department offers students an opportunity to explore theatre as an art form and instrument for social and personal change.

The Theatre programs provide students with a basic grounding in acting, design, production, and performance creation, and serve as preparation for advanced studies.

The Department welcomes autonomy and personal creativity in its students while encouraging initiative and collaboration.

Reflecting the realities of modern theatre, it also prepares students for self-employment and entrepreneurial roles within national and international milieux.

Programs

Students are responsible for fulfilling their particular degree requirements; hence, the following sequence must be read in conjunction with §81.20.

The superscript indicates credit value.

60 BFA Specialization in Acting for the Theatre

18 ACTT 209³; DFTT 209³; PERC 211³, 212³, 303³, 306³

15 ACTT 210³, 211³, 321³, 325³, 331³

18 Chosen from ACTT 231³, 332³, 355³, 358³, 360³, 370³, 372³, 398³, 432³, 450³, 455³, 458³, 465³, 498³

3 Chosen from PERC 311³, 318³, 321³, 322³, 323³, 324³, 353³, 412³, 421³; ACTT 480³, 481³

6 Chosen from ACTT 433³, 434³, 435³, 436³, 437³, 438³, 440³, 460³, 461³, 462³; PERC 390³, 490³

60 BFA Specialization in Design for the Theatre

24 ACTT 209³ or PERC 209³; DFTT 209³, 210³, 211³; PERC 211³, 212³, 303³, 306³

3 Chosen from ACTT 210³; PERC 210³

9 Chosen from DFTT 301³, 311³, 321³, 331³, 341³, 401³, 498³

- 9 Chosen from DFTT 305³, 315³, 325³, 326³, 335³, 336³, 337³, 345³, 398³, 405³
 3 PERC 311³
 12 Elective credits from the Faculty of Fine Arts*
- *Students are advised to select six credits from Studio Art electives.

60	BFA Specialization in Performance Creation
18	DFTT 209 ³ ; PERC 209 ³ , 211 ³ , 212 ³ , 303 ³ , 306 ³
3	PERC 210 ³
6	PERC 311 ³ , 318 ³
12	Chosen from PERC 321 ³ , 322 ³ , 323 ³ , 324 ³ , 398 ³ , 412 ³ , 421 ³ , 498 ³
12	Chosen from PERC 351 ³ , 356 ³ , 398 ³ , 462 ³ , 464 ³ , 471 ³ , 486 ³ , 498 ³
9	Chosen from PERC 384 ³ , 386 ³ , 388 ³ , 390 ³ , 408 ³ , 481 ³ , 482 ³ , 490 ⁶
24	Minor in Theatre
6	PERC 211 ³ , 212 ³
3	Chosen from PERC 303 ³ , 306 ³
3	Chosen from PERC 321 ³ , 322 ³ , 323 ³ , 324 ³ , 398 ³
12	Elective credits from the Department of Theatre

81.120.1 Admission to Programs in Theatre

The Department of Theatre has distinct admissions procedures in addition to the normal admission process of Concordia University. All applicants (except those applying to the Minor in Theatre) are required to submit a letter of intent (approximately 500 words) in which they name specifically to which program they wish to apply: the Specialization in Acting for the Theatre, the Specialization in Design for the Theatre, or the Specialization in Performance Creation.

Applicants must arrange their appointments and obtain detailed information regarding interviews, auditions, portfolios, and letters of intent on the Department's website at: concordia.ca/finearts/theatre.

In addition to the interview and letter of intent:

1. Applicants applying to the Specialization in Design for the Theatre must bring to the interview a portfolio including visual material demonstrating their creative abilities and interests.
2. Applicants applying to the Specialization in Acting for the Theatre are required to audition.
3. Applicants applying to the Specialization in Performance Creation are required to audition.

Courses

Acting for the Theatre:

ACTT 201 **Introduction to Acting I** (3 credits)

This course emphasizes the development of imagination and physical expression, including the basics of improvisation, the playing of intention, and the group ensemble experience working towards presentation.

NOTE: Students who have received credit for TPER 201 may not take this course for credit.

NOTE: Students enrolled in this course are required to pay a production fee.

NOTE: Students enrolled in a specialization program in the Department of Theatre may not take this course for credit.

ACTT 202 **Introduction to Acting II** (3 credits)

Prerequisite: ACTT 201 or written permission of the Department of Theatre. This course builds on skills previously acquired in the area of playing intention and group ensemble, emphasizing the development of skills pertaining to language, character, and text.

NOTE: Students who have received credit for TPER 202 or for this topic under a TPER 298 number may not take this course for credit.

NOTE: Students enrolled in this course are required to pay a production fee.

ACTT 209 **The Engaged Theatre Artist** (3 credits)

Prerequisite: Enrolment in a specialization in the Department of Theatre or written permission of the Department. This studio course is designed to bring together students from all of the Department's specializations to explore basic skills and principles of performance creation and acting for the theatre. The course combines theoretical readings and practical explorations relating to diverse perspectives on an artist's role in society.

NOTE: Students who have received credit for PERC 209, TDEV 209, or TPER 209 may not take this course for credit.

ACTT 210 **Scene Study I** (3 credits)

Prerequisite: ACTT 209 or PERC 209 or written permission of the Department of Theatre. This studio course places increased emphasis on movement, voice, and text interpretation, working in a realistic style of physical actions such as Stanislavski's work on embodiment. The course offers foundational principles for creating a role, with focus on contemporary and early modern realistic dramatic texts.

NOTE: Students who have received credit for TPER 210 may not take this course for credit.

ACTT 211 *Voice and Movement for the Stage I* (3 credits)

Prerequisite: Enrolment in the Specialization in Acting for the Theatre or written permission of the Department of Theatre. This studio course cultivates the expressive potential of the actor's instrument: the body, voice, and imagination. It aims to hone the basic tools of physical and of vocal expression. Students practise applying these tools in études, poetry performances, and scenes.
NOTE: Students who have received credit for TPER 231 may not take this course for credit.

ACTT 231 *Ensemble I* (3 credits)

Prerequisite: Enrolment in the Specialization in Acting for the Theatre or written permission of the Department of Theatre. This studio class covers the elements of preparation for theatrical presentation with emphasis on the co-operative nature of theatre. Studio work includes ongoing movement and voice training, and instruction in sensory awareness, spatial relationships, improvisational techniques, and performer-audience relationships.

NOTE: Students who have received credit for this topic under a TPER 298 number may not take this course for credit.

ACTT 298 *Special Topics in Acting* (3 credits)

Prerequisite: Written permission of the Department of Theatre. This course provides opportunities for studies in selected styles or modes of theatre performance.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

ACTT 299 *Special Topics in Acting* (6 credits)

Prerequisite: Written permission of the Department of Theatre. This course provides opportunities for studies in selected styles or modes of theatre performance.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

ACTT 321 *Movement for the Stage II* (3 credits)

Prerequisite: ACTT 211 or written permission of the Department of Theatre. This studio course is an introduction to various movement-based performance techniques, methods, or approaches, such as Decroux, Laban, LeCoq, Biomechanics, or somatic work.

NOTE: Students who have received credit for TPER 331 may not take this course for credit.

ACTT 325 *Voice for the Stage II* (3 credits)

Prerequisite: ACTT 211 or written permission of the Department of Theatre. Building on the voice and speech skills previously introduced, this course emphasizes embodiment, self-awareness, and freedom of breath; authentic, healthy, and expressive vocal use; and clarity and conviction in speaking text.

NOTE: Students who have received credit for TPER 345 may not take this course for credit.

ACTT 331 *Scene Study II* (3 credits)

Prerequisite: ACTT 210 or written permission of the Department of Theatre. In this studio course, students examine, develop, and refine their individual processes for analyzing, exploring, rehearsing, and performing scenes from dramatic texts, with focus on non-realistic genres of text, such as existentialism, absurdism or expressionism.

NOTE: Students who have received credit for TPER 311 may not take this course for credit.

ACTT 332 *Improvisation* (3 credits)

Prerequisite: ACTT 321 and 325; or written permission of the Department of Theatre. A thorough introduction to improvisation as a method of creation for the stage, using skills such as mask, commedia dell'arte, or the techniques of Keith Johnstone.

ACTT 355 *Voice for the Stage III* (3 credits)

Prerequisite: ACTT 325 or written permission of the Department of Theatre. This studio course provides a thorough introduction to a particular voice-based performance technique, method, or approach, such as choral singing for the theatre or slam poetry.

NOTE: Students who have received credit for TPER 355 may not take this course for credit.

ACTT 358 *Movement for the Studio III* (3 credits)

Prerequisite: ACTT 321 or written permission of the Department of Theatre. Building on previously acquired skills, this course provides an intensive introduction to a particular movement-based performance technique, method, or approach, such as the Viewpoints or the techniques of Eugenio Barba, as intended for acting specialists.

ACTT 360 *Ensemble II* (3 credits)

Prerequisite: ACTT 231 or written permission of the Department of Theatre. This studio course focuses on skill development and performance of a particular theatrical genre, such as Elizabethan verse, red-nose clown, or Brechtian epic theatre.

NOTE: Students who have received credit for TPER 325 may not take this course for credit.

ACTT 370 *Clown for the Actor* (3 credits)

Prerequisite: ACTT 321 and 325; or written permission of the Department of Theatre. Building on previously acquired skills in movement and voice, this course focuses on the development of clown characters and situations, with focus on Michel Dallaire's "Jeu Clownsque" approach to clown training and performance.

NOTE: Students who have received credit for this topic under a TPER 498 number may not take this course for credit.

ACTT 372 Stage Combat (3 credits)

Prerequisite: ACTT 321 or written permission of the Department of Theatre. Building on previously acquired movement skills, this course focuses on the development of unarmed and armed stage combat skills for the actor.

NOTE: Students who have received credit for this topic under a TPER 498 number may not take this course for credit.

ACTT 398 Special Topics in Acting (3 credits)

Prerequisite: Written permission of the Department of Theatre. This course provides opportunities for studies in selected styles or modes of theatre performance.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

ACTT 399 Special Topics in Acting (6 credits)

Prerequisite: Written permission of the Department of Theatre. This course provides opportunities for studies in selected styles or modes of theatre performance.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

ACTT 432 Rasaboxes (3 credits)

Prerequisite: ACTT 321 and 325; or written permission of the Department of Theatre. Building on the skills developed in voice and movement classes, this studio course provides an intensive introduction to the performance of emotion, based on the Rasaboxes training as developed by Richard Schechner.

NOTE: Students who have received credit for this topic under a TPER 398 number may not take this course for credit.

ACTT 433 Creation Project A (3 credits)

Prerequisite: Written permission of the Department of Theatre. This public performance course offers supervised application of theatrical skills in the collaborative creation of a theatre production.

NOTE: Students enrolled in this course are required to pay a production fee.

ACTT 434 Creation Project B (3 credits)

Prerequisite: Written permission of the Department of Theatre. This public performance course offers supervised application of theatrical skills in the collaborative creation of a theatre production.

NOTE: Students enrolled in this course are required to pay a production fee.

ACTT 435 Creation Project C (3 credits)

Prerequisite: Written permission of the Department of Theatre. This public performance course offers supervised application of theatrical skills in the collaborative creation of a theatre production.

NOTE: Students enrolled in this course are required to pay a production fee.

ACTT 436 One-Act Project A (3 credits)

Prerequisite: Written permission of the Department of Theatre. This public performance course offers supervised application of theatrical skills in the collaborative realization of a theatre production of a one-act text from the worldwide body of dramatic literature.

NOTE: Students enrolled in the course are required to pay a production fee.

ACTT 437 One-Act Project B (3 credits)

Prerequisite: Written permission of the Department of Theatre. This public performance course offers supervised application of theatrical skills in the collaborative realization of a theatre production of a one-act text from the worldwide body of dramatic literature.

NOTE: Students enrolled in the course are required to pay a production fee.

ACTT 438 One-Act Project C (3 credits)

Prerequisite: Written permission of the Department of Theatre. This public performance course offers supervised application of theatrical skills in the collaborative realization of a theatre production of a one-act text from the worldwide body of dramatic literature.

NOTE: Students enrolled in the course are required to pay a production fee.

ACTT 440 Supervised Acting Performance Project (3 credits)

Prerequisite: FFAR 250; 18 credits in a specialization of the Department of Theatre; and written permission of the Department. This studio course provides students with the opportunity to work in self-selected teams to develop short projects in response to a given theme for performance in a festival format. The course involves working with limited resources with an emphasis on exploration of acting processes. This course has a public performance outcome.

NOTE: Students may be required to be present for additional hours related to technical and/or dress rehearsals as stipulated in the course syllabus.

NOTE: Students enrolled in the course are required to pay a production fee.

NOTE: This course may be repeated for credit in this program, provided the subject matter is different each time.

ACTT 450 Advanced Acting Studio (3 credits)

Prerequisite: ACTT 321, 325. Building on the skills developed in movement and voice for the stage, this studio course provides advanced students with the opportunity to apply their skills to text study and character development in an intensive environment without the pressure of creating a public performance. The course may introduce a variety of acting styles to promote further skill development.

ACTT 455 Voice for the Stage IV (3 credits)

Prerequisite: ACTT 355 or written permission of the Department of Theatre. Building on previously acquired skills, this course provides an advanced exploration of a particular voice-based performance technique, method, or approach, such as singing, voice-over or dialects.

ACTT 458 Movement for the Stage IV (3 credits)

Prerequisite: ACTT 358 or written permission of the Department of Theatre. Building on previously acquired skills, this course provides an advanced exploration of a particular movement-based performance technique, method, or approach, such as Decroux, Laban, Lecoq, biomechanics, or somatic work.

NOTE: Students who have received credit for TPER 431 may not take this course for credit.

ACTT 460 Classical Text Project A (3 credits)

Prerequisite: Written permission of the Department of Theatre. This public performance course offers supervised application of theatrical skills in the collaborative realization of a theatre production of an iconic text from the worldwide body of dramatic literature, written by a widely recognized playwright, such as Shakespeare, Kālidāsa, Ibsen, Chekhov, or Zeami.

NOTE: Students enrolled in this course are required to pay a production fee.

ACTT 461 Classical Text Project B (3 credits)

Prerequisite: Written permission of the Department of Theatre. This public performance course offers supervised application of theatrical skills in the collaborative realization of a theatre production of an iconic text from the worldwide body of dramatic literature, written by a widely recognized playwright, such as Shakespeare, Kālidāsa, Ibsen, Chekhov, or Zeami.

NOTE: Students enrolled in this course are required to pay a production fee.

ACTT 462 Classical Text Project C (3 credits)

Prerequisite: Written permission of the Department. This public performance course offers supervised application of theatrical skills in the collaborative realization of a theatre production of an iconic text from the worldwide body of dramatic literature, written by a widely recognized playwright, such as Shakespeare, Kālidāsa, Ibsen, Chekhov, or Zeami.

NOTE: Students enrolled in this course are required to pay a production fee.

ACTT 465 Final Acting Project (3 credits)

Prerequisite: 48 credits in the Specialization in Acting for the Theatre; and written permission of the Department of Theatre. Admission is by audition or application. This studio course involves the supervised creation and performance of a solo or ensemble theatre piece, the development of audition technique, and other career-oriented skills. The emphasis is on crystallizing each student's unique theatrical identity, while solidifying collaborative skills. This course has a public performance outcome.

ACTT 480 Designing an Acting Workshop (3 credits)

Prerequisite: Written permission of the Department of Theatre. This studio course provides students with the opportunity to design a course framework under the guidance of the instructor that includes curriculum, implementation, and assessment for students. Students develop a philosophy of teaching and learning through sustained reflection of their own creative process and selected readings.

NOTE: Students who have received credit for this topic under a TDEV 498 number may not take this course for credit.

ACTT 481 Conducting an Acting Workshop (3 credits)

Prerequisite: ACTT 480 and written permission of the Department of Theatre. This advanced studio course builds on the skills acquired in ACTT 480 to focus on the development of skills required in conducting an acting workshop: active observation, instructional strategies to deliver the curriculum, and assessment.

NOTE: Students who have received credit for this topic under a TDEV 498 number may not take this course for credit.

ACTT 498 Special Topics in Acting (3 credits)

Prerequisite: Written permission of the Department of Theatre. This course provides opportunities for studies in selected styles or modes of theatre performance.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

ACTT 499 Special Topics in Acting (6 credits)

Prerequisite: Written permission of the Department of Theatre. This course provides opportunities for studies in selected styles or modes of theatre performance.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

Design for the Theatre:

DFTT 209 *Design for Live Performance I* (3 credits)

Prerequisite: Enrolment in a specialization of the Department of Theatre or written permission of the Department. An examination of the theatrical design process, including the role of designers. Students study the conception, communication, and realization of design ideas in lectures and labs.

DFTT 210 *Design for Live Performance II* (3 credits)

Prerequisite: DFTT 209 or written permission of the Department of Theatre. An advanced examination of the theatrical design process, including the role of designers. Students study the conception, communication, and realization of design ideas in lectures and labs. This course develops the students' skills in developing and communicating theatrical designs.

DFTT 211 *Drawing for the Theatre* (3 credits)

Prerequisite: Enrolment in the Specialization in Design for the Theatre or written permission of the Department. Students study drawing and drafting techniques for the stage with emphasis on observation and rendering. They examine specific drawing methods to efficiently communicate design ideas. Focus is on basic drawing and drafting techniques using traditional and modern media.

NOTE: Students who have received credit for this topic under a DFTT 298 number may not take this course for credit.

DFTT 298 *Special Topics in Design for the Theatre* (3 credits)

Prerequisite: Written permission of the Department of Theatre. The study of specialized aspects of theatre design.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

DFTT 299 *Special Topics in Design for the Theatre* (6 credits)

Prerequisite: Written permission of the Department of Theatre. The study of specialized aspects of theatre design.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

DFTT 301 *Introduction to Designer's Studio: Conception* (3 credits)

Prerequisite: Written permission of the Department of Theatre. Students apply their design knowledge to special projects, which may include portfolio development or the design of Department of Theatre productions.

NOTE: This course may be repeated for credit in this program, provided the subject matter is different each time.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

DFTT 305 *Independent Study I* (3 credits)

Prerequisite: Written permission of the Department of Theatre. This course provides students with the opportunity to design and implement an independent project supervised by a full-time faculty member.

DFTT 311 *Lighting Design Conception* (3 credits)

Prerequisite: DFTT 209 and 210 or written permission of the Department of Theatre. Students study lighting design for the theatre with emphasis on imaginative and analytical processes of developing and communicating lighting design ideas. Students participate in lectures, studios, and projects, and examine theories, aesthetics, and conventions of lighting design.

DFTT 315 *Lighting Design Realization* (3 credits)

Prerequisite: DFTT 209 and 210 or written permission of the Department of Theatre. Students study lighting for the stage with emphasis on analysis, development, and execution of design ideas. Students participate in lectures and studios, and examine lighting as a practical, expressive, and interpretive form. Focus is on basic realization methods, for example hanging and focusing lighting equipment. Students have scheduled access to a theatre space.

DFTT 321 *Costume Design Conception* (3 credits)

Prerequisite: DFTT 209 and 210 or written permission of the Department of Theatre. Students study costume design for the theatre with emphasis on imaginative and analytical processes of developing and communicating costume design ideas. Students participate in lectures, studios, and projects, and examine theories, aesthetics, and conventions of costume design.

DFTT 325 *Costume Design Realization* (3 credits)

Prerequisite: DFTT 209 and 210 or written permission of the Department of Theatre. Students study costuming for the stage with emphasis on analysis, development, and execution of design ideas. Students participate in lectures and studios and examine costuming as a practical, expressive, and interpretive form. The focus is on basic realization methods, for example, patterning and draping. Students have scheduled access to a costume shop and dyeing facilities.

DFTT 326 *Costume Accessories Realization* (3 credits)

Prerequisite: DFTT 209 and 210 or written permission of the Department of Theatre. Students study costume accessory design for the stage with emphasis on analysis, development, and execution of design ideas. Students participate in lectures and studios and examine costume accessory design as a practical, expressive and interpretive form. The focus is on basic realization methods, for example, mask-making, millinery, and accessory construction. Students have scheduled access to a costume shop and dyeing facilities.

DFTT 331 *Set Design Conception* (3 credits)

Prerequisite: DFTT 209 and 210 or written permission of the Department of Theatre. Students study set design for the theatre with emphasis on imaginative and analytical processes of developing and communicating set design ideas. Students participate in lectures, studios, and projects to examine theories, aesthetics, and conventions of set design.

DFTT 335 *Set Design Realization* (3 credits)

Prerequisite: DFTT 209 and 210 or written permission of the Department of Theatre. Students study stage scenery with emphasis on analysis, development, and execution of design ideas. Students participate in lectures and studios to examine scenery as a practical, expressive, and interpretive form. Focus is on basic realization methods, for example, drafting and construction. Students have scheduled access to a scene shop.

DFTT 336 *Stage Properties Realization* (3 credits)

Prerequisite: DFTT 209 and 210 or written permission of the Department of Theatre. Students study stage properties with an emphasis on analysis, development, and execution of design ideas. They participate in lectures and studios, and examine stage properties as a practical, expressive, and interpretive form. The focus is on basic realization methods, for example, casting, assembling, and use of materials and equipment. Students have scheduled access to a property shop.

DFTT 337 *Scene Painting Realization* (3 credits)

Prerequisite: DFTT 209 and 210 or written permission of the Department of Theatre. This studio course includes the study of the materials and technology of scene painting.

DFTT 341 *Elements of Multimedia Conception* (3 credits)

Prerequisite: DFTT 209 and 210 or written permission of the Department of Theatre. Students study design with a variety of media, with an emphasis on imaginative and analytical processes. They participate in lectures and studios, and examine the theories, aesthetics, and conventions of multimedia design.

DFTT 345 *Elements of Multimedia Realization* (3 credits)

Prerequisite: DFTT 209 and 210 or written permission of the Department of Theatre. Students study elements of analog and digital media with an emphasis on the execution of design ideas. They participate in lectures and studios, and examine elements of multimedia as practical, expressive, and interpretive forms. The focus is on basic realization methods, for example, the installation of projection and sound equipment. Students have scheduled access to a theatre space.

DFTT 350 *Introduction to Public Performance Design* (6 credits)

Prerequisite: ACTT 209 or PERC 209; two of ACTT 210, DFTT 210, PERC 210; DFTT 209; FFAR 250; PERC 211, 212; and written permission of the Department of Theatre. Students learn to collaborate with directors, other designers, and technical staff to creatively realize set, costume, lighting, properties, video, and sound designs for live performance.

NOTE: Students enrolled in this course are required to pay a production fee.

DFTT 351 *Introduction to Public Performance Design* (3 credits)

Prerequisite: ACTT 209 or PERC 209; two of ACTT 210, DFTT 210, PERC 210; DFTT 209; FFAR 250; PERC 211, 212; and written permission of the Department of Theatre. Students learn to collaborate with directors, other designers, and technical staff to creatively realize set, costume, lighting, properties, video, and sound designs for live performance.

NOTE: Students enrolled in this course are required to pay a production fee.

DFTT 370 *Introduction to Elements of Production* (6 credits)

Prerequisite: ACTT 209 or PERC 209; two of ACTT 210, DFTT 210, PERC 210; DFTT 209; FFAR 250; PERC 211, 212; and written permission of the Department of Theatre. Students study theories and practices of stage management, production management and technical direction. They develop technical skills in scenery, properties, and costumes, as well as lighting and sound. By completing specific assignments related to department public performances, students are introduced to the language, tools, and techniques used in rehearsal halls, shops, and backstage.

NOTE: Students enrolled in this course are required to pay a production fee.

DFTT 371 *Introduction to Elements of Production* (3 credits)

Prerequisite: ACTT 209 or PERC 209; two of ACTT 210, DFTT 210, PERC 210; DFTT 209; FFAR 250; PERC 211, 212; and written permission of the Department of Theatre. Students study theories and practices of stage management, production management, and technical direction. They develop technical skills in scenery, properties, and costumes, as well as lighting and sound. By completing specific assignments related to department public performances, students are introduced to the language, tools, and techniques used in rehearsal halls, shops, and backstage.

NOTE: Students enrolled in this course are required to pay a production fee.

DFTT 398 *Special Topics in Design for the Theatre: Realization* (3 credits)

Prerequisite: Written permission of the Department of Theatre. The study of specialized aspects of theatre design realization.
NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

DFTT 399 *Special Topics in Design for the Theatre* (6 credits)

Prerequisite: Written permission of the Department of Theatre. The study of specialized aspects of theatre design.
NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

DFTT 401 Advanced Designer's Studio: Conception (3 credits)

Prerequisite: DFTT 301 and written permission of the Department of Theatre. Students apply their design knowledge to special projects, which may include portfolio development or the design of Department of Theatre productions.

NOTE: This course may be repeated for credit in this program, provided the subject matter is different each time.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

DFTT 405 Independent Study II (3 credits)

Prerequisite: DFTT 305 and written permission of the Department of Theatre. This course provides students with the opportunity to design and implement an independent project, supervised by a full-time faculty member.

DFTT 408 Supervised Internship I (3 credits)

Prerequisite: 24 credits in degree program and written permission of the Department of Theatre. This course provides students with the opportunity to obtain credit for work completed for a recognized theatre company, or a project under the joint supervision of a qualified professional and a full-time Theatre faculty member.

NOTE: Students who have received credit for PERC 408 or PROD 408 may not take this course for credit.

DFTT 409 Supervised Internship II (3 credits)

Prerequisite: DFTT 408 and written permission of the Department of Theatre. This course provides students with the opportunity to obtain credit for work completed for a recognized theatre company, or a project under the joint supervision of a qualified professional and a full-time Theatre faculty member.

NOTE: Students who have received credit for PERC 409 or PROD 409 may not take this course for credit.

DFTT 450 Advanced Public Performance Design (6 credits)

Prerequisite: DFTT 350 or 351 and written permission of the Department of Theatre. Students learn to collaborate with directors, other designers, and technical staff at an advanced level to creatively realize set, costume, lighting, properties, video, and sound designs for live performance.

NOTE: Students who have received credit for PROD 416 may not take this course for credit.

NOTE: Students enrolled in this course are required to pay a production fee.

NOTE: This course may be repeated for credit in this program, provided the subject matter is different each time.

DFTT 451 Advanced Public Performance Design (3 credits)

Prerequisite: DFTT 350 or 351 and written permission of the Department of Theatre. Students learn to collaborate with directors, other designers, and technical staff at an advanced level to creatively realize set, costume, lighting, properties, video, and sound designs for live performance.

NOTE: Students enrolled in this course are required to pay a production fee.

NOTE: This course may be repeated for credit in this program, provided the subject matter is different each time.

DFTT 470 Advanced Elements of Production (6 credits)

Prerequisite: DFTT 370 or 371 and written permission of the Department of Theatre. Students study advanced theories and practices of stage management, production management, and technical direction. They develop technical skills in scenery, properties, and costumes, as well as in lighting and sound. By completing specific assignments related to department public performances, students are introduced to the language, tools, and techniques in rehearsal halls, shops, and backstage.

NOTE: Students enrolled in this course are required to pay a production fee.

NOTE: This course may be repeated for credit in this program, provided the subject matter is different each time.

DFTT 471 Advanced Elements of Production (3 credits)

Prerequisite: DFTT 370 or 371 and written permission of the Department of Theatre. Students study advanced theories and practices of stage management, production management, and technical direction. They develop technical skills in scenery, properties, and costumes, as well as in lighting and sound. By completing specific assignments related to department public performances, students are introduced to the language, tools, and techniques in rehearsal halls, shops, and backstage.

NOTE: This course may be repeated for credit in this program, provided the subject matter is different each time.

DFTT 498 Special Topics in Design for the Theatre: Conception (3 credits)

Prerequisite: Written permission of the Department of Theatre. The study of specialized aspects of theatre design conception.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

DFTT 499 Special Topics in Design for the Theatre (6 credits)

Prerequisite: Written permission of the Department of Theatre. The study of specialized aspects of theatre design.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

Performance Creation:**PERC 201 Telling Tales** (3 credits)

This course explores individual and collective storytelling within a framework of the world's oral narrative traditions. Students study and practise techniques for telling stories, whether drawn from their individual experiences, from the experiences of others, or from oral tales recorded in written form. Students are encouraged to explore and develop their own storytelling style.

NOTE: Students who have received credit for TDEV 201 may not take this course for credit.

NOTE: Students enrolled in the course are required to pay a production fee.

PERC 209 *The Engaged Theatre Artist* (3 credits)

Prerequisite: Enrolment in a specialization of the Department of Theatre or written permission of the Department. This studio course is designed to bring together students from all of the Department's specializations to explore basic skills and principles of performance creation and acting for the theatre. The course combines theoretical readings and practical explorations relating to diverse perspectives on an artist's role in society.

NOTE: Students who have received credit for ACTT 209, TDEV 209, or TPER 209 may not take this course for credit.

PERC 210 *The Audience and the Performance Event* (3 credits)

Prerequisite: ACTT 209 or PERC 209 or written permission of the Department of Theatre. This studio course introduces students to theories and practical skills from a wide range of approaches including agitprop, group workshop, collective creation, documentary drama, issue-based theatre, and collaborative community plays. Theory and practice are examined in the context of the relationship of the performance to its audience.

NOTE: Students who have received credit for TDEV 210 may not take this course for credit.

PERC 211 *Theatre in the City* (3 credits)

Prerequisite: Enrolment in a program of the Department of Theatre or permission of the Department. This lecture course offers an introduction to the history of urban performance space and the variety of theatre buildings and production philosophies in Montreal. Students encounter the challenges of a small production project in collaboration with other students across the Department's specialization programs.

NOTE: Students who have received credit for PROD 211 may not take this course for credit.

PERC 212 *Introduction to Dramaturgy* (3 credits)

Prerequisite: Enrolment in a program of the Department of Theatre or permission of the Department. This lecture course offers an introduction to the multi-faceted role of dramaturgy in contemporary theatre practice including production dramaturgy and new play development. This foundational course places an emphasis on script analysis including elements such as structure, semiotics, genre, and style.

NOTE: Students who have received credit for THEA 211 may not take this course for credit.

PERC 298 *Special Topics in Performance Creation* (3 credits)

Prerequisite: Written permission of the Department of Theatre. The study of specialized aspects of performance creation.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

PERC 303 *Theatre History and Theory to 1800* (3 credits)

Prerequisite: 18 credits and enrolment in a program of the Department of Theatre. This lecture course provides a framework for the analysis of theory, history, and practice up until the 19th century. Students are encouraged to critically approach different models of writing and reading in theatre history. The course examines both literary and non-literary genres of theatre and performance, as well as the theatre's ritual functions in various times and cultures.

NOTE: Students who have received credit for THEA 303 may not take this course for credit.

PERC 306 *Theatre History and Theory, 1800 to the Present* (3 credits)

Prerequisite: 24 credits. This lecture course engages with theatre practices and history as art forms and social phenomena from the 19th century to contemporary times. Students are exposed to key theatre historical and theoretical texts within the context of contemporary critical theory. The course problematizes the notion of the canon as it has been challenged by the rise of feminism, post-colonial studies, and queer theory, among other lenses.

NOTE: Students who have received credit for THEA 306 or 404 may not take this course for credit.

PERC 311 *Directing I* (3 credits)

Prerequisite: 24 credits and enrolment in a program of the Department of Theatre. This studio course introduces students to basic organizational, analytical, and leadership skills for stage direction. Course content focuses primarily on applied script analysis and beginning storytelling techniques, supported by the study of key figures in directing from the 20th and 21st centuries. The final assignment may consist of the preparation and direction of a short scene with student actors.

NOTE: Students who have received credit for THEA 411 may not take this course for credit.

NOTE: Students may be required to be present for additional hours related to technical and/or dress rehearsals as stipulated in the course syllabus.

NOTE: Students enrolled in the course are required to pay a production fee.

PERC 318 *Playwriting I* (3 credits)

Prerequisite: 24 credits and enrolment in a program of the Department of Theatre. This studio course focuses on building skills in writing for the stage. A variety of play formats and styles are studied, from traditional to modern plays. The class may work from a common theme or form; for example, writing adaptations from another genre. Students write their own one-act play throughout the course, and receive dramaturgical and workshop feedback.

NOTE: Students who have received credit for THEA 341 may not take this course for credit.

NOTE: This course may be repeated for credit in this program, provided the subject matter is different each time.

PERC 321 *Introduction to Performance Studies* (3 credits)

Prerequisite: 24 credits and enrolment in a program of the Department of Theatre or permission of the Department. This seminar course introduces key texts in the interdisciplinary field of performance studies, and investigates a broad range of sites and practices from the realms of theatre, dance, and other cultural forms, from avant-garde to popular, aesthetic to political.

PERC 322 *Gender and Sexuality in Performance* (3 credits)

Prerequisite: 24 credits and enrolment in a program of the Department of Theatre or permission of the Department. This seminar course provides a grounding in feminist and queer theory as critical tools for the analysis and creation of performance. The performance of gendered and queer identities is considered, as presented in everyday life and on stage.

PERC 323 *Post-Colonial Theory and Practice* (3 credits)

Prerequisite: 24 credits and enrolment in a program of the Department of Theatre or permission of the Department. This seminar course in post-colonial theory provides students with flexible methodologies for examining the impact of colonialism on societies and cultures through the study of dramatic and other forms of literature and expression. The course covers key concepts such as hegemony, exoticism, identity, alterity, hybridity, and resistance, as these terms circulate within Canada and internationally.

PERC 324 *Queer Theatre and Performance* (3 credits)

Prerequisite: 24 credits and enrolment in a program of the Department of Theatre or permission of the Department. This seminar course analyzes historical and contemporary examples of lesbian/gay/bisexual/transgender/two-spirited and queer theatre and performance. The course examines how the stage has been, and continues to be, a necessary public forum for queer political activism and identity politics, and offers a comprehensive overview of key concerns in sexuality studies in Canada and internationally.

PERC 351 *Community Arts: The Art of Engagement* (3 credits)

Prerequisite: PERC 209 or written permission of the Department of Theatre. This studio course introduces the art of engagement in theatre and performance creation practices. Students gain skills and knowledge in areas such as arts-based research, interview techniques, alliances, partnerships, participatory evaluation methods, and analysis of aesthetic and ethical concerns. The course includes practical explorations of various approaches to creating socially engaged theatre and performance.

NOTE: Students who have received credit for TDEV 301 or for this topic under a TDEV 398 number may not take this course for credit.

PERC 353 *Storytelling and Oral Histories* (3 credits)

Prerequisite: PERC 209 or written permission of the Department of Theatre. This studio course focuses on the practice and ethical implications of oral narrative traditions and their roles in contemporary society. Working with personal, traditional, and culturally specific stories, students create, craft, and perform new stories or oral histories.

NOTE: Students who have received credit for TDEV 303 may not take this course for credit.

PERC 354 *Popular and Applied Theatre* (3 credits)

Prerequisite: ACTT 209 or PERC 209 or written permission of the Department of Theatre. This studio course examines the principles on which popular and other applied theatre forms are based, including objectives and approaches of theatre companies around the world engaged in social activism and the creation of opportunities for social change. This course provides an overview of founders, practitioners, and theorists including Theatre of the Oppressed and theatre and development practices originating in Africa and India. Topics are approached through practical learning in specific techniques, and application of critical lenses for analysis and assessment. Students may also prepare a work of popular theatre.

NOTE: Students who have received credit for TDEV 311 may not take this course for credit.

PERC 356 *Puppetry and Performing Object Workshop* (3 credits)

Prerequisite: ACTT 209 or PERC 209 or written permission of the Department of Theatre. This studio course introduces students to basic theories, practices, and history of performance with puppets and performing objects. It combines building, basic manipulation, and show-making techniques. Students work on short scenes for performance.

NOTE: Students who have received credit for THEA 316 may not take this course for credit.

NOTE: Students enrolled in the course are required to pay a production fee.

PERC 384 *Collective Creation* (3 credits)

Prerequisite: ACTT 209 or PERC 209 or written permission of the Department of Theatre. This studio course focuses on collaborative approaches to theatre and performance creation. Students generate original material and create intermedial performance works. This course has a performance outcome before a small audience.

NOTE: Student who have received credit for TDEV 314 or for this topic under a TDEV 398 number may not take this course for credit.

NOTE: Students may be required to be present for additional hours related to technical and/or dress rehearsals as stipulated in the course syllabus.

NOTE: Students enrolled in this course are required to pay a production fee.

PERC 386 *Interdisciplinary Approaches to Performance Creation* (3 credits)

Prerequisite: ACTT 209 or PERC 209 and 30 credits completed in a program of the Department of Theatre. This studio course emphasizes creative inquiry as the basis for interdisciplinary approaches to performance creation. In-class practical exercises open up possibilities for creation of original work through experimentation in creative process. Students also build skills in entrepreneurship as primary creators.

NOTE: Students who have received credit for this topic under a TDEV 398 number may not take this course for credit.

NOTE: Students may be required to be present for additional hours related to technical and/or dress rehearsals as stipulated in the course syllabus.

NOTE: Student enrolled in this course are required to pay a production fee.

PERC 388 *Performance Creation Festival* (3 credits)

Prerequisite: Written permission of the Department of Theatre. This studio course provides students with the opportunity to work in self-selected teams to develop short projects for performance in a festival format. The course involves working with limited resources and emphasizes creative problem solving with the materials on hand. This course has a public performance outcome.

NOTE: Students may be required to be present for additional hours related to technical and/or dress rehearsals as stipulated in the course syllabus.

NOTE: Students enrolled in the course are required to pay a production fee.

NOTE: This course may be repeated for credit in this program, provided the subject matter is different each time.

NOTE: Specific title, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

PERC 390 *Performance Creation Studio* (3 credits)

Prerequisite: FFAR 250; 24 credits completed in a specialization program of the Department of Theatre or permission of the Department. This course involves students working in ensemble on all aspects of the study and production of an existing theatre script, or the creation and production of an original piece of theatre engaging with a particular event, issue, or topic. This course has a public performance outcome. This course normally takes place over one term.

NOTE: Students who have received credit for PROD 311 may not take this course for credit.

NOTE: Students may be required to be present for additional hours related to technical and/or dress rehearsals as stipulated in the course syllabus.

NOTE: Students enrolled in this course are required to pay a production fee.

NOTE: This course may be repeated for credit in this program, provided the subject matter is different each time.

NOTE: Specific title, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

PERC 398 *Special Topics in Performance Creation* (3 credits)

A seminar course exploring a topic in performance creation.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

PERC 399 *Special Topics in Performance Creation* (6 credits)

A seminar or studio course exploring a topic in performance creation.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

PERC 405 *Independent Study I* (3 credits)

Prerequisite: Permission of the Department of Theatre. A student-proposed research project supervised by a full-time faculty member.

NOTE: Students who have received credit for THEA 405 or TDEV 405 may not take this course for credit.

PERC 408 *Supervised Internship I* (3 credits)

Prerequisite: 24 credits in a specialization of the Department of Theatre; and written permission of the Department. This course provides students with the opportunity to obtain credit for work completed for a recognized theatre company, or for a project under the joint supervision of a qualified professional and a full-time Theatre faculty member.

NOTE: Students who have received credit for DFTT 408 or PROD 408 may not take this course for credit.

PERC 409 *Supervised Internship II* (3 credits)

Prerequisite: PERC 408 and written permission of the Department of Theatre. This course provides students with the opportunity to obtain credit for work completed for a recognized theatre company, or for a project under the joint supervision of a qualified professional and a full-time Theatre faculty member.

NOTE: Students who have received credit for DFTT 409 or PROD 409 may not take this course for credit.

PERC 412 *Expanded Dramaturgical Practice* (3 credits)

Prerequisite: PERC 212 and completion of 30 credits in the Department of Theatre or permission of the Department. This advanced hybrid seminar-studio course investigates expanded and interdisciplinary approaches to dramaturgy, focusing on post-dramatic performance, movement and sound arts, new media in performance, and performance in public space.

PERC 415 *Independent Study II* (3 credits)

Prerequisite: PERC 405 and written permission of the Department of Theatre. This course provides students with the opportunity to design and implement an independent project in Performance Creation, supervised by a full-time faculty member.

NOTE: Students who have received credit for TDEV 415 or THEA 415 may not take this course for credit.

PERC 421 *Socially Engaged and Activist Performance* (3 credits)

Prerequisite: 24 credits. This seminar course involves reading, discussing, and writing about selected plays and performance projects within the context of their intentional engagement with social, cultural, and/or political exigencies. Readings examine the theory and practice of approaches and genres selected from community arts, oral history performance, street theatre, performance art, and political theatre.

NOTE: Students who have received credit for this topic under a TDEV 398 or 498 number may not take this course for credit.

PERC 462 Playwriting II (3 credits)

Prerequisite: PERC 318 and 30 credits completed in the Specialization in Performance Creation. This advanced studio course focuses on the further development of the creator's voice taught in Playwriting I. Students work on an original performance text to be developed through a workshop process which ends in an invited staged reading in the Department.

NOTE: Students who have received credit for THEA 342 may not take this course for credit.

NOTE: This course may be repeated for credit in this program, provided the subject matter is different each time.

PERC 464 Oral History Performance (3 credits)

Prerequisite: ACTT 209 or PERC 209 and 30 credits completed in a program of the Department of Theatre, or permission of the Department. This advanced hybrid seminar-studio course explores key ethical, dramaturgical, and performative dimensions of the emergent field of oral history performance within the context of a range of forms that might include verbatim and documentary forms, applied theatre, playback theatre, community-engaged performance, storytelling, performance art and digital media. This class has a public performance component.

NOTE: Students who have received credit for this topic under a PERC 398 number may not take this course for credit.

PERC 471 Directing II (3 credits)

Prerequisite: PERC 311 and 30 credits from within the Department of Theatre. This studio course builds on already developed skills and knowledge while engaging with additional styles of theatre making, such as director-led creation, postmodern performance, documentary, or verbatim theatre. The final assignment involves directing a short work. This course has a studio performance outcome.

NOTE: Students may be required to be present for additional hours related to technical and/or dress rehearsals as stipulated in the course syllabus.

NOTE: Students enrolled in the course are required to pay a production fee.

PERC 481 Performing Stories (3 credits)

Prerequisite: ACTT 209 or PERC 209 or written permission of the Department of Theatre. This studio course provides students with opportunities to experiment with both writing and performing original stories. Students examine contemporary performing artists whose works incorporate a wide range of storytelling modalities. This course has a public performance outcome.

NOTE: Student who have received credit for TDEV 401 or for this topic under a TDEV 498 number may not take this course for credit.

NOTE: Students may be required to be present for additional hours related to technical and/or dress rehearsals as stipulated in the course syllabus.

NOTE: Students enrolled in the course are required to pay a production fee.

PERC 482 The Artist-in-Residence (3 credits)

Prerequisite: ACTT 209 or PERC 209 and 30 credits from within the Department of Theatre or permission of the Department. This studio course takes a hands-on, place-based approach to exploring the ethical and practical considerations facing artists and others wishing to work "in residence" with community partners. Students investigate how theatre artists might collaborate with other disciplines to explore social change within specific organizations and/or neighbourhoods. This course has a practical community-engaged outcome.

NOTE: Students who have received credit for TDEV 431 or for this topic under a TDEV 498 number may not take this course for credit.

NOTE: Students may be required to be present for additional hours related to technical and/or dress rehearsals as stipulated in the course syllabus.

NOTE: Students enrolled in this course are required to pay a production fee.

PERC 486 Site-specific Performance Practice (3 credits)

Prerequisite: 30 credits completed in a program of the Department of Theatre or permission of the Department. This advanced studio course introduces students to interdisciplinary methods for developing solo or collaborative site-specific works. Contemporary topics and a broad range of theory and practices from the realms of theatre, sound, visual, and spatial arts are addressed to stimulate conceptual reflection on methods for realizing site-specific works. This course has a site-specific public project outcome.

NOTE: Students who have received credit for this topic under a TDEV or PERC 498 number may not take this course for credit.

NOTE: Students may be required to be present for additional hours related to technical and/or production-related rehearsals as stipulated in the course syllabus.

NOTE: Students enrolled in this course are required to pay a production fee.

PERC 490 Performance Creation Mainstage (6 credits)

Prerequisite: FFAR 250; 30 credits in a specialization of the Department of Theatre or permission of the Department. This course involves students working in ensemble on all aspects of the study and production of an existing theatre script, or the creation and production of an original piece of theatre engaging with a particular event, issue, or topic. This course has a public performance component. This course normally takes place over two terms.

NOTE: Students who have received credit for PROD 415 may not take this course for credit.

NOTE: Extra time may be required for technical or production-related rehearsals.

NOTE: This course may be repeated for credit in this program, provided the subject matter is different each time.

NOTE: Students enrolled in the course are required to pay a production fee.

NOTE: Specific title, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

PERC 498 *Special Topics in Performance Creation* (3 credits)

A studio course exploring a topic in performance creation.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

PERC 499 *Special Topics in Performance Creation* (6 credits)

A seminar or studio course exploring a topic in performance creation.

NOTE: Specific topics, and additional prerequisites if required, are stated in the Undergraduate Class Schedule.

100.10 Librarians

100.20 Retired Full-Time Faculty

Section 100

LIBRARIANS

Section 100.10

The following information was updated as of October 1, 2020.

- ALEXANDER, Krista, MLIS *University of Western Ontario; Reference/Subject Librarian, Sciences (Vanier)*
BEAUDRY, Guylaine, PhD *École Pratique des Hautes Études; Vice-Provost, Digital Strategy and University Librarian*
BOBER, Christopher, MLIS *McGill University; Reference/Subject Librarian (Webster)*
BOTTER, Kathleen, MLIS *University of Western Ontario; Systems Librarian (Webster)*
BREIER, Susie, MLIS *McGill University; Reference/Subject Librarian (Webster)*
CARR, Christopher, MLIS *McGill University; Special Materials and Cataloguing Librarian (Vanier)*
CARSON, Pamela, MLIS *McGill University; Web Services Librarian (Webster)*
CHALIFOUR, Joshua, MLIS *McGill University; Digital Scholarship Librarian (Vanier)*
CHARBONNEAU, Olivier, LLD *Université de Montréal, MLIS Université de Montréal; Reference/Subject Librarian (Webster)*
CMOR, Dianne, MA *York University, MLIS McGill University; Associate University Librarian, Teaching and Learning (Webster)*
DECK, Lawrence, MLIS *McGill University, MA Université de Montréal; System Librarian (Webster)*
DENNIE, Danielle, MSc *Institut Armand-Frappier; Research and Data Librarian (Vanier)*
EDWARDS, Jean-Marc, MLIS *McGill University; Associate University Librarian, Information Systems and Technology*
GAMACHE, Éthel, MLIS *Université de Montréal; Reference/Subject Librarian (Webster)*
GIFFIN, Meredith, MLIS *McGill University; Collections Coordinator (Vanier)*
GRAZIANO, Vince, MA *York University, MLIS McGill University; Reference/Subject Librarian (Webster)*
GROENENDYK, Michael, MLIS *Dalhousie University; Digital Scholarship Librarian (Webster)*
GUINDON, Alex, MA *Université du Québec à Montréal, MLIS Université de Montréal; Geospatial and Data Systems Librarian (Webster)*
HALL, Katharine, MLIS *University of Western Ontario; Reference and Subject Librarian (Vanier)*
HARLAND, Andréa, MLS *McGill University, MA Queen's University; Head, Access Services (Webster)*
JENSEN, Karen, MLIS *McGill University; Head, Cataloguing and Collections Maintenance (Vanier)*
JOHAL, Rajiv, MLIS *McGill University; Head, Interlibrary Loans (Webster)*
KLODA, Lori, PhD *MLIS McGill University; Associate University Librarian, Planning and Community Relations (Webster)*
LAKE, Michelle, MLIS *University of Western Ontario; Reference/Subject Librarian, Government Publications (Webster)*
LAKE, Sarah, MSt *McGill University; Digital Preservation Librarian (Webster)*
LATOUR, John, MA *Concordia University, MLIS McGill University; Teaching and Research Librarian, Fine Arts (Webster)*
LEI, Chloe, MLIS *University of Toronto; Teaching and Research Librarian, Engineering and Computer Science (Webster)*
LITTLE, Geoffrey, MLIS *University of Toronto; Associate University Librarian, Scholarly Communications (Webster)*
MILLS, Alexandra, MLIS *McGill University; Special Collections Archivist (Vanier)*
NEUGEBAUER, Tomasz, MLIS *McGill University; Digital Projects and Systems Development Librarian (Webster)*
RIVA, Patricia, MLIS *McGill University; Associate University Librarian, Collection Services (Vanier)*
VÉZINA, Kumiko, PhD (doctoral conjointe) *Université du Québec à Montréal/Université de Montréal/Concordia University; Electronic Resources Coordinator (Vanier)*
VILENO, Luigina, MLIS *McGill University; Head, Vanier Library*
WIERCINSKI, Jared, MLIS *McGill University; Associate University Librarian, Research and Graduate Studies (Vanier)*
-

RETIRED FULL-TIME FACULTY

Section 100.20

The following information was updated as of October 1, 2020.

2020 Retirements

ACEMIAN, Nancy, PhD *Concordia University; Centre for Engineering in Society*
COLLINS, Laura, PhD *Concordia University; Education*
DI MICHELE, Mary, MA *University of Windsor; English*
LAURENCE, Jean-Roch, PhD *Concordia University; Psychology*
LERNER, Loren, PhD *Université de Montréal; Art History*
MASSICOTTE, Mia, MLS *McGill University; Systems Librarian (Webster)*
WERNER, Janet, MFA *Yale University; Studio Arts*

2019 Retirements

APRIL, Raymonde, BA *Université Laval; Provost's Distinction; Studio Arts*
BHAT, Rama B., PhD *Indian Institute of Technology, Madras, ing.; Provost's Distinction; Department of Mechanical, Industrial and Aerospace Engineering*
BRODY, Josef, PhD *Carleton University; Mathematics and Statistics*
BUI, Tien D., PhD *York University, ing.; Computer Science and Software Engineering*
CURTIS, Sandra, PhD *Concordia University; Creative Arts Therapies*
ELLIOTT, David, MFA *Concordia University; Studio Arts*
GITTES, Tobias Foster, PhD *Columbia University; Liberal Arts College*
HONG, Henry, PhD *Concordia University, ing.; Mechanical, Industrial and Aerospace Engineering*
KRANTZ, Frederick H., PhD *Cornell University; Liberal Arts College*
MARDEN, Catharine, PhD *McGill University, PEng; Centre for Engineering in Society*
MORELLI, François, MFA *Rutgers University; Studio Arts*
POULIN, Sonia, MLS *McGill University; Reference and Subject Librarian (Vanier)*
ROJAS-BENAVENTE, Lady, PhD *Université Laval; Classics, Modern Languages and Linguistics (Spanish)*
SEGOVIA-ZAPIAIN, Juan J., PhD *Université de Paris-Dauphine; Accountancy*
SILVERMAN, Yehudit, MA *Lesley University; Creative Arts Therapies*

2018 Retirements

BHABRA, Harjeet, PhD *University of Missouri-Columbia; Finance*
CHARLAND, Maurice, PhD *University of Iowa; Communication Studies*
CLARK, Tim, MFA MA *Concordia University; Studio Arts*
GABRIAL, Brian, PhD *University of Minnesota; Journalism*
MENDELL Marguerite, PhD *McGill University; Provost's Distinction; School of Community and Public Affairs*
PETRUSHKA-BORDAN, Tima, MA *McGill University; Management*
POIRIER, Maben, PhD *McGill University; Political Science*
ROTH, Lorna, PhD *Concordia University; Provost's Distinction; Communication Studies*
SIERPINSKA, Anna, PhD *Krakow Higher School of Pedagogy; Mathematics and Statistics*

2017 Retirements

ADAMS, Liselyn, DipMusPerf *Royal Conservatory of the Hague; Music*
BERNARD, Robert, PhD *University of Washington; Education*
BIRD, Peter H., PhD *University of Sheffield; Chemistry and Biochemistry*
BOND, Eleanor, BFA *University of Manitoba; Provost's Distinction; Studio Arts*
BOUCHARD, Paul, PhD *Université de Montréal; Education*
BRENNAN, Kit, MFA *University of Alberta; Theatre*
BRODT, Abraham, PhD *New York University; Finance*
BROWN, Jeri, MEd *Kent State University; Music*
BUXTON, William, PhD *Free University of Berlin; Communication Studies*
CAMPBELL, Bryan, PhD *Université de Montréal; Economics*

DANIS, Marcel, LLL *Université de Montréal; Political Science*
de BRENTANI, Ulrike, PhD *McGill University; Marketing*
DE GUERRE, Donald W., PhD *Fielding Graduate University; Applied Human Sciences*
DOSTALER, Isabelle, PhD *University of Cambridge; Management*
DYSART-GALE, Deborah, PhD *University of Pittsburgh; Centre for Engineering in Society*
ENGLISH, Ann M., PhD *McGill University; Provost's Distinction; Chemistry and Biochemistry*
ETEZADI-AMOLI, Jamshid, PhD *University of Toronto; Supply Chain and Business Technology Management*
FICK, Carolyn, PhD *Concordia University; History*
FREIWALD, Bina, PhD *McGill University; English*
GARFIN, Judy, MFA *Maryland Institute College of Art; Studio Arts*
GOULD, Trevor, MA *Carleton University; Studio Arts*
HALL, Richard L., PhD *University of London; Mathematics and Statistics*
HANCOX, Richard, MFA *Ohio University; Communication Studies*
HUGHES, Lynn, Advanced Dip *Vancouver School of Art; Studio Arts*
KAPA, Dubravka, MSc *University of Belgrade, MLIS McGill University; Associate University Librarian, Research and Graduate Studies (Vanier)*
KAY, Linda, MA *Concordia University; Journalism*
KUMAR GOYAL, Suresh, MEng *University of Strathclyde; Supply Chain and Business Technology Management*
LACROIX, Louise, MFA *Concordia University; Creative Arts Therapies*
LAROCQUE, Jean-Pierre, MFA *New York State College of Ceramics at Alfred University; Studio Arts*
LAYNE, Barbara, MFA *University of Kansas; Studio Arts*
LITTLE, Edward, PhD *University of Toronto; Theatre*
MACKENZIE, Catherine, PhD *University of Toronto; Art History*
MANNADIR, Jay, MBA *McGill University; Finance*
McCARTNEY, Andra, PhD *York University; Communication Studies*
MONGERSON, Eric, MFA *Humboldt State University; Theatre*
MÜLLER, Frank, PhD *Ruhr University; Economics*
OPPENHEIMER, Robert J., PhD *University of Toronto; Management*
PARIS, David L., PhD *University of Oregon, CAT(C), ATC; Health, Kinesiology, and Applied Physiology*
RAMACHANDRAN, Venkatanarayana, PhD *Indian Institute of Science, PEng; Provost's Distinction; Electrical and Computer Engineering*
REINHART, Melinda, MLIS *McGill University; Reference/Selection Librarian (Webster)*
ROSS, Christopher A., PhD *University of Western Ontario; Marketing*
ROY, Robert M., PhD *University of Toronto; Biology*
SAMPSON, Michael, PhD *Queen's University; Economics*
SANDERS, Lionel J., PhD *McMaster University; Classics, Modern Languages and Linguistics (Classics)*
SHAVER, Frances M., PhD *Université de Montréal; Sociology and Anthropology*
SHRIVASTAVA, Paul, PhD *University of Pittsburgh; Management*
SIGGEL, Eckhard, PhD *University of Toronto; Economics*
STORMS, Reginald K., PhD *University of Alberta; Biology*
TURNBULL, Joanne, PhD *Australian National University; Chemistry and Biochemistry*
VARIN, Luc, PhD *Concordia University; Biology*
VILLATA, Bruno, PhD *Université Laval; Classics, Modern Languages and Linguistics (Italian)*
WAUGH, Thomas, PhD *Columbia University; Cinema*
WHITE, Joanna L., PhD *McGill University; Education*

2016 Retirements

BAYNE, Clarence, PhD *McGill University; Supply Chain and Business Technology Management*
COLE, Sally, PhD *University of Toronto; Sociology and Anthropology*
CUMMINS, Christopher J., PhD *University of Southampton; Mathematics and Statistics*
DOWNIE, Peter, MA *Concordia University; Journalism*
DUTKEWYCH, Andrew, MFA *Slade School of Art; Studio Arts*
GASHER, Mike, PhD *Concordia University; Journalism*
LEQUIN, Lucie, PhD *Concordia University; Études françaises*
MASON, Sheila, PhD *Purdue University; Philosophy*
MILLER, John, PhD *McMaster University; English*
OPPENHEIM, Michael, PhD *University of California, Santa Barbara; Religions and Cultures*
SALVATORE, Filippo, PhD *Harvard University; Classics, Modern Languages and Linguistics (Italian)*
SCHADE, Rosemarie, DPhil *University of York (U.K.); History*
SEPPANEN, Ritva, MA *Concordia University; English*
SZABAD-SMYTH, Linda, PhD *McGill University; Art Education*
VALLEJO, Catherine, PhD *Université de Montréal; Classics, Modern Languages and Linguistics (Spanish)*

Awards, Prizes and Scholarships

- 200.1 UNDERGRADUATE AWARDS
- 200.2 ENTRANCE SCHOLARSHIPS
- 200.3 ENTRANCE BURSARIES
- 200.4 IN-COURSE SCHOLARSHIPS
- 200.5 IN-COURSE BURSARIES

Section 200

200.1 UNDERGRADUATE AWARDS

At Concordia University, undergraduate scholarships, bursaries, and awards are overseen and administered by the Undergraduate Scholarship and Awards Committee, as mandated by the Deputy Provost and Vice-Provost, Planning and Positioning. The Undergraduate Scholarship and Awards Committee is composed of a Chairperson, four faculty members, one member from Student and Enrolment Services, one Concordia Student Union member, one member of the Concordia Council on Student Life, as well as managerial staff from the Financial Aid and Awards Office.

Students may hold **only one** of the following types of awards during a given academic year:

- Entrance Scholarships
- Entrance Bursaries
- In-Course Scholarships
- In-Course Bursaries

Holding more than one of these scholarships or bursaries is not allowed unless expressly authorized by the Undergraduate Scholarships and Awards Committee. All scholarships, bursaries, and awards are available to full-time students in bachelor's programs, who are Canadian citizens or permanent residents.

Scholarship, award, and bursary programs are active during the regular session only. Regular session is defined in §16.1.1 as the fall and winter terms of a given academic year. No scholarships, awards, or bursaries are issued during the summer session.

Full-time and part-time status for all scholarships, bursaries, and awards is determined according to candidates' credit load over the regular session only (i.e. fall and winter). Where scholarship, award, and bursary programs are concerned, summer-session credit loads cannot be combined with fall/winter credits in the determination of full-time or part-time status. In general, registration in a total of 24 credits or more during the regular session equates to full-time status, while registration in less than 24 credits equates to part-time status. Dependents of Concordia staff who are benefitting from tuition waivers are not eligible to apply to the entrance bursary and in-course bursary programs.

Authorized co-op work terms and exchange programs are normally considered equivalent to full-time on-campus registration. Wherever possible, clients of the Access Centre for Students with Disabilities who are registered in a part-time credit load may be considered as full-time students in the event of candidacy for scholarships, awards, and bursaries.

Scholarships

Entrance Scholarships are available to full-time students entering university studies for the first time. Candidates are selected by Faculties/Schools in co-operation with the Financial Aid and Awards Office, and in certain cases, in co-operation with academic departments as well. Selection is automatic, based on academic ranking as assigned by the University in the course of admission file processing. For some entrance scholarships, especially those in the Faculty of Fine Arts, selection is based on submission of a portfolio and/or other specific materials. Only selected candidates are notified.

In-Course Scholarships are available to students who have completed at least one academic year in full-time study at Concordia University. Most in-course scholarships are automatically awarded by the Undergraduate Scholarships and Awards Committee on the basis of the student's assessment GPA achieved at Concordia during the preceding academic year. A small number of in-course scholarships require students to apply — these have additional eligibility criteria such as contribution to student life, or enrolment in a particular study discipline.

Bursaries

Entrance Bursaries are available to students entering university studies for the first time. An application form must be submitted online along with various supporting documents. Eligibility is determined following a financial needs test, a review of the candidate's academic ranking as assigned during admission application processing, and a holistic appreciation of the applicant's personal statements on the entrance bursary application form.

In-Course Bursaries are awarded to returning students admitted in a previous year on the basis of financial need and satisfactory academic standing. An application form must be submitted online along with various supporting documents. Eligibility is determined following a financial needs test, a review of the candidate's academic standing, and a holistic appreciation of the applicant's personal statements on the in-course bursary application form. For a complete list of available entrance bursaries, consult the FAAO website.

Awards

Awards are generally similar to scholarships, except that they have one or more additional eligibility criteria, such as a letter of intent or an applicant statement, contribution to student life at the University, or a particular level of performance in a certain course. Most are restricted to students in particular degrees or concentrations. In many cases, there is no specific grade point average requirement, although all candidates must be in satisfactory academic standing with a minimum assessment GPA of 2.00.

External Scholarships, Bursaries, and Awards

A number of corporations, industries, and public or private organizations outside of Concordia University have various scholarships, bursaries, and award programs available to Concordia students. These external bodies include NSERC (Natural Sciences and Engineering Research Council of Canada), Universities Canada, and many others. Eligibility criteria vary greatly. Current and upcoming external scholarships, bursaries, and awards are described in information bulletins posted at the Financial Aid and Awards Office.

Information for New Donors: Establishing New Scholarships, Bursaries, and Awards at Concordia University

The Undergraduate Scholarships and Awards Committee and the Financial Aid and Awards Office would like to express their deepest gratitude and appreciation to the ever-growing number of donors and sponsors who provide generous support and recognition to students through the establishment of undergraduate scholarships, bursaries, and awards every year at Concordia University. These programs not only greatly contribute to the academic and personal success of students today, but they also serve as a solid foundation for tomorrow's achievements.

Donors wishing to establish new scholarships, bursaries, and awards for undergraduate students are encouraged to contact the Office of Advancement and Alumni Relations. Please visit the *Giving to Concordia* section of the main Concordia University website for information on establishing new awards, and other meaningful ways of supporting Concordia University and its students.

200.2 ENTRANCE SCHOLARSHIPS

For the current list of entrance scholarships available, as well as more information about each of the awards, please visit the Financial Aid and Awards Office website at concordia.ca/offices/faao.

200.3 ENTRANCE BURSARIES

For the current list of entrance bursaries available, as well as more information about each of the awards, please visit the Financial Aid and Awards Office website at concordia.ca/offices/faao.

200.4 IN-COURSE SCHOLARSHIPS

For the current list of in-course scholarships available, as well as more information about each of the awards, please visit the Financial Aid and Awards Office website at concordia.ca/offices/faao.

200.5 IN-COURSE BURSARIES

For the current list of in-course bursaries available, as well as more information about each of the awards, please visit the Financial Aid and Awards Office website at concordia.ca/offices/faao.

Graduate Programs

Section 300

GRADUATE PROGRAMS

Section 300

Interim Dean of Graduate Studies
EFFROSYNI (FAYE) DIAMANTOUDI

Associate Deans
MAMOUN MEDRAJ
BRADLEY NELSON
PETER PAWELEK

Administrative Director
JOANNE BEAUDOIN

Location

Sir George Williams Campus
School of Graduate Studies
GM Building, Room: 930
514-848-2424, ext. 3800

Mailing Address
School of Graduate Studies
1455 De Maisonneuve Blvd. W.
Montreal, Quebec
H3G 1M8

The graduate programs offered by the University are divided into doctoral, master's, diploma, certificate, and micro programs. Doctoral programs offer students the opportunity to carry out fundamental and applied research. The results of this research are presented in the form of a thesis containing an original contribution to knowledge.

The length and specific format of a doctoral thesis is discipline dependent. All doctoral programs require the passing of comprehensive examinations and a minimum of 90 credits of study. At the master's level, the University offers a variety of thesis and non-thesis options. All master's programs require a minimum of 45 credits. Some master's programs also have a comprehensive examination.

The academic goals of the graduate diploma programs are different from those of doctoral and master's programs. They are designed either to offer a further specialization in a field or discipline already studied at the undergraduate level, or they provide the introduction to a new field of study or discipline, with the express intent to develop some level of specialized knowledge. A graduate diploma typically consists of 30 credits. Diploma programs do not require a thesis, although a graduating essay, project or report may be required.

Graduate certificates are usually designed to use existing departmental graduate resources to serve a professional clientele who seek an upgrading and advanced graduate training over a short time frame. The focus of the certificate program should be directed to the needs of the professional clientele; it will be specialized in scope rather than being of a general nature. A graduate certificate usually consists of 15 credits.

Micro programs are an organized group of courses and/or experiences between one and 14 credits that allow students to develop and document professional skills and competencies. These short courses of study verify, validate and attest that students have acquired specific skills and/or competencies.

With the exception of a few cross-Faculty programs (for example, Individualized Programs – "INDI" – and Humanities), all graduate programs offered by the University are administered by a particular academic department or program in one of the four Faculties of the University. All graduate programs are described in the Graduate Calendar. Each description outlines admission requirements, degree requirements and program options. Please contact the graduate program director for further information. Students may choose to receive their degrees in either the gender neutral nomenclature of Magisteriate and Doctorate or the traditional nomenclature of Master and Doctor.

For a listing of graduate program directors and assistants, please visit: concordia.ca/grad-contacts.

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Section 400

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Section 400

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CONCORDIA UNIVERSITY
1455 De Maisonneuve Blvd. W.
Montreal, Quebec, Canada
H3G 1M8

