

## MAJOR PROGRAM IN ENVIRONMENTAL SCIENCE (SCIENCE) - SCMAJ1076

For an updated list of Programs Supervisors, please visit the [Environmental Sciences website](#).

### Program Requirements

This program requires 8.5 credits as follows:

#### First Year

[BIOA01H3](#) Life on Earth: Unifying Principles

[BIOA02H3](#) Life on Earth: Form, Function and Interactions

[CHMA10H3](#) Introductory Chemistry I: Structure and Bonding

[CHMA11H3](#) Introductory Chemistry II: Reactions and Mechanisms

[[MATA29H3](#) Calculus I for the Life Sciences or [MATA30H3](#) Calculus I for the Physical Sciences]

[[MATA35H3](#) Calculus II for the Biological Sciences or [MATA36H3](#) Calculus II for the Physical Sciences]\*

[[PHYA10H3](#) Physics I for the Physical Sciences or [PHYA11H3](#) Physics I for the Life Sciences]

[EESA06H3](#) Planet Earth

#### Second Year

[STAB22H3](#) Statistics I

and

1.5 credits from the following:

[EESB03H3](#) Principles of Climatology

[EESB04H3](#) Principles of Hydrology

[EESB05H3](#) Principles of Soil Science

[EESB15H3](#) Earth History

[EESB16H3](#) Feeding Humans - The Cost to the Planet

and

0.5 credit from the following:

[BIOB50H3](#) Ecology

[EESB02H3](#) Principles of Geomorphology

[EESB22H3](#) Environmental Geophysics

[EESB17H3](#) Hydro Politics and Transboundary Water Resource Management

[[CSCA08H3](#) Introduction to Computer Science I or [CSCA20H3](#) Introduction to Programming]

[CHMB55H3](#) Environmental Chemistry

#### Third & Fourth Years

[2.0 credits at the C- or D-level in EES courses with at least 0.5 credit at the D-level] or [1.5 credits at the C- or D-level in EES courses and [PSCD11H3](#) Communicating Science: Film, Media, Journalism, and Society]

### Calendar Section: [Environmental Science](#)

## MAJOR PROGRAM IN ENVIRONMENTAL STUDIES (ARTS) - SCMAJ2735

For an updated list of Program Supervisors, please visit the [Environmental Studies website](#).

Companion majors include: Anthropology, Human Geography, Political Science, Public Policy, Sociology, Biology, Biodiversity, Ecology and Evolution, Chemistry, Biochemistry, and Environmental Science, Physics and Astrophysics, and Physical Sciences. Other majors are possible with the permission of the Supervisor of Study.

### Program Requirements

Completion of 8.5 credits as follows:

**1. Core Courses (2.5 credits)**[EESA01H3](#) Introduction to Environmental Science[\[MGEA01H3](#) Introduction to Microeconomics or [MGEA05H3](#) Introduction to Macroeconomics][ESTB01H3](#) Introduction to Environmental Studies

and

0.5 credit chosen from the following:

[ANTB01H3](#) Political Ecology[ESTB02H3/GGRB18H3](#) Canada, Indigenous Peoples, and the Land[GGRA03H3](#) Cities and Environments[POLA01H3](#) Critical Issues in Politics I[POLA02H3](#) Critical Issues in Politics II[POLB80H3](#) Introduction to International Relations I

and

0.5 credit chosen from the following:

[EESA06H3](#) Introduction to Planet Earth[EESA07H3](#) Water[EESA09H3](#) Wind[EESA10H3](#) Human Health and the Environment[EESA11H3](#) Environmental Pollution[EESB18H3](#) Natural Hazards**2. Foundations and Skills (4.0 credits)**[\[ESTC35H3](#) Environmental Science and Technology in Society or [ESTC36H3](#) Knowledge, Ethics and Environmental Decision-Making][ESTC34H3](#) Sustainability in Practice[ESTC36H3](#) Knowledge, Ethics and Environmental Decision-Making[IDSB02H3](#) Development and Environment[STAB22H3](#) Statistics I (or equivalent)

and

2.0 credits from the following:

[EESB03H3](#) Principles of Climatology[EESB04H3](#) Principles of Hydrology[EESB05H3](#) Principles of Soil Science[EESB17H3](#) Hydro Politics and Transboundary Water Resources Management[EESC13H3](#) Environmental Impact Assessment and Auditing[EESD13H3](#) Environmental Law, Policy and Ethics[ESTB04H3](#) Addressing the Climate Change[ESTC40H3](#) Technical Methods for Climate Change Mitigation[ESTD20H3](#) Integrated Natural Resource and Climate Change Governance[GGRA30H3](#) Geographic Information Systems (GIS) and Empirical Reasoning[GGRB21H3](#) Political Ecology: Nature, Society and Environmental Change

(GGRC22H3) Political Ecology Theory and Applications

[GGRC26H3](#) Geographies of Environmental Governance[GGRC28H3](#) Indigenous Peoples, Environment and Justice[GGRC44H3](#) Environmental Conservation and Sustainable Development[POLC53H3](#) Canadian Environmental Policy[POLD89H3](#) Global Environmental Politics[SOCC37H3](#) Environment and Society**3. Capstone and Applications (2.0 credits)**[\[ESTD16H3](#) Project Management in Environmental Studies or [ESTD19H3](#) Risk][ESTD17Y3](#) Cohort Capstone Course in Environmental Studies[ESTD18H3](#) Environmental Studies Seminar Series**Calendar Section: [Environmental Studies](#)****MAJOR PROGRAM IN EVOLUTIONARY ANTHROPOLOGY (SCIENCE)  
- SCMAJ17806**

The Major program in Evolutionary Anthropology provides a course structure for those students desiring to expand upon or supplement other areas of academic interest by taking advantage of Anthropology's unique global, chronological, and

biological perspective on the human condition.

### Program Requirements

The Program requires completion of 8.0 credits in Anthropology including:

#### 1. 1.0 credit as follows:

[ANTA01H3](#) Introduction to Anthropology: Becoming Human

[ANTA02H3](#) Introduction to Anthropology: Society, Culture and Language

#### 2. [ANTB14H3](#) Evolutionary Anthropology

#### 3. [ANTB15H3](#) Contemporary Human Evolution and Variation

4. 6.0 credits at the B-level or above, of which at least 3.0 credits must be at the C- or D-level. At least 5.5 credits must be composed of ANT courses identified as "Science credit" in the UTSC Academic Calendar.

**Note:** [ANTB14H3](#) and [ANTB15H3](#) are prerequisites for C- and D-level courses in the Evolutionary Anthropology program.

## Calendar Section: [Anthropology](#)

## MAJOR PROGRAM IN FRENCH (ARTS) - SCMAJ2156

For curriculum inquiries, contact the department's Program Coordinator: [dls-ua@utsc.utoronto.ca](mailto:dls-ua@utsc.utoronto.ca)

### Program Requirements

Students must complete 8.0 credits in French, including 2.0 credits at the C- or D-level, of which 0.5 credit must be at the D-level, as follows:

#### 1. 3.5 credits in Language Practice:

[FREA01H3](#) Language Practice I

[FREA02H3](#) Language Practice II

[FREB01H3](#) Language Practice III

[FREB02H3](#) Language Practice IV

[FREC01H3](#) Language Practice V

[FREC02H3](#) Language Practice VI

[FRED01H3](#) Language Practice VII: Written French

(Students with special proficiency in the French language may substitute other FRE courses with the permission of the Associate Chair)

#### 2. 1.0 credit in Linguistics:

[FREB08H3](#) Practical Translation I

[FREB44H3](#) Introduction to Linguistics: French Phonetics and Phonology

[FREB45H3](#) Introduction to Linguistics: French Morphology and Syntax

[FREB46H3](#) History of the French Language

[FREC44H3](#) French Semantics

[FREC46H3](#) French Syntax

[FREC48H3](#) Sociolinguistics of French

[FREC47H3](#) Pidgin and Creole Languages (taught in English)

#### 3. 1.0 credit in Culture:

*Culture courses are:*

[FREB22H3](#) The Society and Culture of Québec

[FREB27H3](#) Modern France

[FREB28H3](#) The Francophone World

[FREB70H3](#) Introduction to Film Analysis in French

[FREB84H3](#) Folktale, Myth and the Fantastic in the French-Speaking World

[FREC03H3](#) French in Action I: Practical Workshop in Theatre

[FREC54H3](#) Paris Through the Ages

[FREC70H3](#) Cinema, Movements and Genres

[FREC83H3](#) Cultural Identities and Stereotypes in the French-Speaking World

#### 4. 1.5 credits in Literature:

[FREB50H3](#) Introduction to Literature in French I

and

1.0 credit in *French Literature taken from the following:*

[FREB35H3](#) Francophone Literature

[FREB36H3](#) The 20th Century Québec Novel

[FREB37H3](#) Contemporary Québec Drama

[FREB51H3](#) Literary History in Context: From the Middle Ages to the 17th Century

[FREB55H3](#) Literary History in Context: 18th and 19th Centuries

[FREC38H3](#) Topics in the Literature of Québec

[FREC57H3](#) French Fiction of the 19th Century

[FREC58H3](#) Literature of the Ancien Régime

[FREC63H3](#) Topics in French Literature: Encountering Foreign Cultures: Travel Writing in French

[FREC64H3](#) French Fiction of the 20th and 21st Centuries

[FRED13H3](#) Advanced Topics in French Literature

[FRED14H3](#) Advanced Topics in the Literature of Québec

**5. 1.0 credit in French Linguistics, French Culture or Literature (where not already taken) or from the list below:**

[FREB11H3](#) French Language in the School System

[FREB17H3](#) Spoken French: Conversation and Pronunciation

[FREB18H3](#) Business French

[FREB20H3](#) Teaching Children's Literature in French

[FREC10H3](#) Community-Engaged Learning in the Francophone Community

[FREC11H3](#) Teaching French as a Second Language

[FREC18H3](#) Translation for Business and Professional Needs

[FRED06H3](#) Language Practice VIII: Oral French

#### Notes:

1. At the A-level, only [FREA01H3](#) and [FREA02H3](#) may be counted towards a French Program.
2. For Co-op opportunities related to the Major Program in French, please see the [Humanities and Social Sciences Co-operative](#) section in this *Calendar*.
3. Major students cannot obtain more than 0.5 credit (out of 8.0 credits) by taking a course taught in English.

## Calendar Section: [French](#)

## MAJOR PROGRAM IN GLOBAL ASIA STUDIES (ARTS) - SCMAJGAS

Undergraduate Advisor: (416) 287-7184 Email: [gas-undergrad-advisor@utsc.utoronto.ca](mailto:gas-undergrad-advisor@utsc.utoronto.ca)

### Program Requirements

Students must complete 7.0 credits.

#### 1. 0.5 credit as follows:

[GASA01H3/HISA06H3](#) Introducing Global Asia and its Histories

or

[GASA02H3](#) Introduction to Global Asia Studies

**2. 5.5 credits in GAS courses, of which at least 1.5 credits must be at the C-level and 1.0 credit at the D-level (students should check course description for prerequisites)**

**3. 1.0 credit from Asian language courses taught at the university**

## Calendar Section: [Global Asia Studies](#)

## MAJOR PROGRAM IN HEALTH STUDIES - HEALTH POLICY (ARTS) - SCMAJ2085G

Grade 12 math is recommended

### Program Requirements

This program requires the completion of 8.0 credits, as described below.

Note: The Major/Major (Co-op) Program in Health Studies- Population Health (B.Sc.) and Major/Major (Co-op) Program in Health Studies- Health Policy (B.A.) cannot be combined.

#### First Year

##### 2.0 credits

##### 1. 2.0 credits as follows:

[HLTA02H3](#) Exploring Health and Society: Theories, Perspectives, and Patterns

[HLTA03H3](#) Navigating Health and Society: Research, Practice, and Policy

[PHLB09H3](#) Biomedical Ethics

[STAB23H3](#) Introduction to Statistics for the Social Sciences

#### Second Year

##### 3.0 credits

##### 2. 2.0 credits as follows:

[HLTB15H3](#) Health Research Methodology

[HLTB16H3](#) Public Health

[HLTB40H3](#) Health Policy and Health Systems

[HLTB41H3](#) Social Determinants of Health

##### 3. 0.5 credit from the following:

[HLTB50H3](#) Introduction to Health Humanities

[HLTB60H3](#) Introduction to Interdisciplinary Disability Studies

##### 4. 0.5 credit from the following:

[GGRB28H3](#) Geographies of Disease

[HLTB11H3](#) Human Nutrition

[HLTB20H3](#) Contemporary Human Evolution and Variation

[HLTB42H3](#) Perspectives of Culture, Illness, and Healing

[HLTB50H3](#) Introduction to Health Humanities (if not used towards requirement 3)

[HLTB60H3](#) Introduction to Interdisciplinary Disability Studies (if not used towards requirement 3)

[IDSB04H3](#) Introduction to International/Global Health\*

\*Note: [IDSB04H3](#) has prerequisites that are not part of this program.

The following courses may be used as a program requirement if the content is arts or policy focused; please consult with the Program Coordinator to have the topic assessed for program usage:

[HLTB30H3](#) Current Issues in Health

[HLTB31H3](#) Synergies Among Science, Policy, and Action

#### Third Year

##### 2.5 Credits

##### 5. 0.5 credit as follows:

[HLTC27H3](#) Community Health and Epidemiology

##### 6. 1.0 credit from the following:

[HLTC42H3](#) Emerging Health Issues and Policy Needs

[HLTC43H3](#) Politics of Canadian Health Policy

[HLTC44H3](#) Comparative Health Policy Systems

##### 7. 1.0 credit from the following:

[ANTC24H3](#) Culture, Mental Illness, and Psychiatry

[ANTC61H3](#) Medical Anthropology: Illness and Healing in Cultural Perspective

[HLTC02H3](#) Gender and Health

[HLTC04H3](#) Qualitative Research in Action

[HLTC16H3](#) Health Information Systems

[HLTC17H3](#) Rehabilitation Sciences

[HLTC19H3](#) Chronic Diseases

[HLTC20H3](#) Global Disability Studies

[HLTC22H3](#) Health, Aging and the Life Cycle

[HLTC42H3](#) Emerging Health Issues and Policy Needs (if not used towards requirement 6)

[HLTC43H3](#) Politics of Canadian Health Policy (if not used towards requirement 6)

[HLTC44H3](#) Comparative Health Policy Systems (if not used towards requirement 6)

[HLTC46H3](#) Globalization, Gender, and Health

[HLTC47H3](#) Institutional Ethnography in Action

[HLTC48H3](#) Special Topics in Health and Society

[HLTC49H3](#) Indigenous Health

[HLTC50H3](#) The Human-Animal Interface

[HLTC51H3](#) Special Topics in Health and Society

[HLTC52H3](#) Special Topics in Health Humanities

[HLTC53H3](#) Creative Research Practices in Aging

[HLTC56H3](#) Drawing Illness

[HLTC81H3](#) Health Professions and Practice

[IDSC11H3](#) Issues in Global and International Health\*

\***Note:** [IDSC11H3](#) has prerequisites that are not part of this program.

#### Fourth Year

##### 0.5 credit

##### 8. 0.5 credit from the following:

[HLTD06H3](#) Migration, Medicine, and the Law

[HLTD07H3](#) Advanced Rehabilitation Sciences: Disability Studies and Lived Experiences of 'Normalcy'

[HLTD11H3](#) Program and Policy Evaluation

[HLTD20H3](#) Advanced Topics in Sex, Gender, and the Life Course

[HLTD26H3](#) Embodiment Across the Life Course

[HLTD29H3](#) Advanced Topics in Inequality, Inequity, and Health

[HLTD40H3](#) The Politics of Care, Self-Care, and Mutual Aid

[HLTD46H3](#) Violence and Health: Critical Perspectives

[HLTD47H3](#) Advanced Topics in Health and Wellness

[HLTD48H3](#) Advanced Topics in Global Health

[HLTD49H3](#) Global Health Governance: Thinking Alongside the World's Leaders

[HLTD50H3](#) Advanced Topics in Health Humanities

[HLTD51H3](#) Aging and the Arts

[HLTD52H3](#) Health Histories

[HLTD53H3](#) Advanced Topics in Health Humanities

[HLTD54H3](#) Toronto's Stories of Health and Illness

[HLTD56H3](#) Health Humanities Workshop: Documentary and Memoir

[HLTD80H3](#) Critical Health Education

[HLTD81H3](#) Health Professions Education

[HLTD82H3](#) Black Health Disparities: Education and Promotion

**The following courses may be used as a program requirement if the content is arts or policy focused; please consult with the Program Coordinator to have the topic assessed for program usage:**

[HLTD01H3](#) Directed Readings in Health and Society

[HLTD02H3](#) Health Research Seminar

[HLTD04H3](#) Special Topics in Health

[HLTD05H3](#) Directed Research on Health Services and Institutions

[HLTD12H3](#) Advanced Topics in Health and Society

[HLTD21H3](#) Advanced Topics in Health and Society

[HLTD22H3](#) Advanced Topics in Health and Society

[HLTD71Y3](#) Directed Research in Health and Society

### Calendar Section: [Health Studies](#)

## MAJOR PROGRAM IN HEALTH STUDIES - POPULATION HEALTH (SCIENCE) - SCMAJ2085H

Grade 12 math is recommended

Enrolment in the program is limited. Admissions will require:

A. completion of 4.0 credits including [[BIOA01H3](#) or [BIOA11H3](#)], [HLTA02H3](#), [HLTA03H3](#), [HLTA20H3](#), and [STAB23H3](#), and

B. either (1) a final grade of 67% or higher in both [[BIOA01H3](#) or [BIOA11H3](#)] and [HLTA20H3](#), or (2) a final grade of 60% or higher in both [[BIOA01H3](#) or [BIOA11H3](#)] and [HLTA20H3](#), and a final grade of 72% or higher in [HLTB22H3](#)

### Program Requirements

This program requires the completion of 8.0 credits, as described below.

Note: The Major/Major (Co-op) Program in Health Studies- Population Health (B.Sc.) and Major/Major (Co-op) Program in Health Studies- Health Policy (B.A.) cannot be combined.

#### First Year

##### 2.5 credits

##### 1. 0.5 credit from the following:

[BIOA01H3](#) Life on Earth: Unifying Principles or  
[BIOA11H3](#) Introduction to the Biology of Humans

##### 2. 2.0 credits as follows:

[HLTA02H3](#) Exploring Health and Society: Theories, Perspectives, and Patterns  
[HLTA03H3](#) Navigating Health and Society: Research, Practice, and Policy  
[HLTA20H3](#) Physiology Through the Life Course: From Birth Through Death  
[STAB23H3](#) Introduction to Statistics for the Social Sciences

#### Second Year

##### 3.0 credits

##### 3. 2.0 credits as follows:

[HLTB15H3](#) Health Research Methodology  
[HLTB16H3](#) Public Health  
[HLTB22H3](#) Biological Determinants of Health  
[HLTB41H3](#) Social Determinants of Health

##### 4. 0.5 credit from the following:

[BIOB35H3](#) Essentials of Human Physiology  
[HLTB33H3](#) Human Development and Anatomy  
[HLTB44H3](#) Pathophysiology and Etiology of Disease

##### 5. 0.5 credit from the following:

[BIOB35H3](#) Essentials of Human Physiology (if not used towards requirement 4)  
[GGRB28H3](#) Geographies of Disease  
[HLTB11H3](#) Human Nutrition  
[HLTB20H3](#) Contemporary Human Evolution and Variation  
[HLTB33H3](#) Human Development and Anatomy (if not used towards requirement 4)  
[HLTB40H3](#) Health Policy and Health Systems  
[HLTB42H3](#) Perspectives of Culture, Illness, and Healing  
[HLTB44H3](#) Pathophysiology and Etiology of Disease (if not used towards requirement 4)  
[HLTB50H3](#) Introduction to Health Humanities  
[HLTB60H3](#) Introduction to Interdisciplinary Disability Studies  
[PHLB09H3](#) Biomedical Ethics  
[STAB27H3](#) Statistics II

The following courses may be used as a program requirement if the content is science-focused; please consult with the Program Coordinator to have the topic assessed for program usage:

[HLTB30H3](#) Current Issues in Health  
[HLTB31H3](#) Synergies Among Science, Policy, and Action

#### Third Year

##### 2.0 credits

##### 6. 0.5 credit as follows:

[HLTC27H3](#) Community Health and Epidemiology

##### 7. 0.5 credit from the following:

[HLTC19H3](#) Chronic Diseases  
[HLTC25H3](#) Infectious Diseases

##### 8. 1.0 credit from the following:

[ANTC47H3](#) Human and Primate Comparative Osteology  
[ANTC48H3](#) Advanced Topics in Human Osteology



[ANTC68H3](#) Deconstructing Epidemics  
[BIOC70H3](#) An Introduction to Bias in the Sciences  
[HLTC04H3](#) Qualitative Research in Action  
[HLTC16H3](#) Health Information Systems  
[HLTC17H3](#) Rehabilitation Sciences  
[HLTC19H3](#) Chronic Diseases (if not used towards requirement 7)  
[HLTC22H3](#) Health, Aging and the Life Cycle  
[HLTC23H3](#) Child Health and Development  
[HLTC24H3](#) Environment and Health  
[HLTC25H3](#) Infectious Diseases (if not used towards requirement 7)  
[HLTC26H3](#) Global Health and Human Biology  
[HLTC28H3](#) Special Topics in Health Sciences  
[HLTC29H3](#) Special Topics in Health Sciences  
[HLTC30H3](#) Understanding Cancer: From Cells to Communities  
[HLTC46H3](#) Globalization, Gender, and Health  
[HLTC49H3](#) Indigenous Health  
[HLTC81H3](#) Health Professions and Practice

The following courses may be used as a program requirement if the content is science-focused; please consult with the Program Coordinator to have the topic assessed for program usage:

[HLTC48H3](#) Special Topics in Health and Society  
[HLTC51H3](#) Special Topics in Health and Society

#### **Fourth Year** **0.5 credits**

#### **9. 0.5 credit from the following:**

[HLTD07H3](#) Advanced Rehabilitation Sciences: Disability Studies and Lived Experiences of 'Normalcy'  
[HLTD08H3](#) Advanced Topics in Health Sciences  
[HLTD09H3](#) Population Perspectives on Reproductive Health  
[HLTD13H3](#) Advanced Topics in Global Health and Human Biology  
[HLTD18H3](#) Dental Sciences  
[HLTD20H3](#) Advanced Topics in Sex, Gender, and the Life Course  
[HLTD23H3](#) Indigenous Peoples: Pandemics, Epidemics, and Outbreaks  
[HLTD25H3](#) Advanced Topics in Environmental Health  
[HLTD26H3](#) Embodiment Across the Life Course  
[HLTD27H3](#) Food Security, Food Sovereignty, and Health  
[HLTD28H3](#) Innovations for Global Health  
[HLTD29H3](#) Advanced Topics in Inequality, Inequity, and Health  
[HLTD40H3](#) The Politics of Care, Self-Care, and Mutual Aid  
[HLTD44H3](#) Environmental Contaminants, Vulnerability, and Toxicity  
[HLTD46H3](#) Violence and Health: Critical Perspectives  
[HLTD47H3](#) Advanced Topics in Health and Wellness  
[HLTD48H3](#) Advanced Topics in Global Health  
[HLTD49H3](#) Global Health Governance: Thinking Alongside the World's Leaders  
[HLTD80H3](#) Critical Health Education  
[HLTD81H3](#) Health Professions Education

The following courses may be used as a program requirement if the content is science-focused; please consult with the Program Coordinator to have the topic assessed for program usage:

[HLTD01H3](#) Directed Readings in Health and Society  
[HLTD02H3](#) Health Research Seminar  
[HLTD04H3](#) Advanced Topics in Health and Society  
[HLTD05H3](#) Directed Research on Health Services and Institutions  
[HLTD12H3](#) Advanced Topics in Health and Society  
[HLTD21H3](#) Advanced Topics in Health and Society  
[HLTD22H3](#) Advanced Topics in Health and Society  
[HLTD71Y3](#) Directed Research in Health and Society

## **Calendar Section: [Health Studies](#)**



## MAJOR PROGRAM IN HISTORY (ARTS) - SCMAJ0652

Undergraduate Advisor: 416-208-2923 Email: [history-undergrad-advisor@utsc.utoronto.ca](mailto:history-undergrad-advisor@utsc.utoronto.ca)

### Program Requirements

Students must complete at least 7.0 credits in History.

#### 1. 1.0 credit from the following:

[HISA04H3](#) Themes in World History I

[HISA05H3](#) Themes in World History II

[HISA06H3/GASA01H3](#) Introducing Global Asia and its Histories

[HISA07H3/CLAA04H3](#) The Ancient Mediterranean World

[HISA08H3/AFSA01H3](#) Africa in the World: An Introduction

[HISA09H3](#) Capitalism: A Global History

#### 2. 0.5 credit as follows:

[HISB03H3](#) Critical Writing and Research for Historians

#### 3. 3.0 credits at the C- or D-level

#### 4. Additional 2.5 credits in History

#### 5. Within the above 7.0 credits required, students must also complete:

1.5 credits must deal with a period prior to 1800

and

1.0 credit in Canadian History

and

#### At least 0.5 credit in two of the following areas of history

a. United States and Latin America

b. Medieval

c. European

d. Africa and Asia

e. Transnational

f. Ancient World

### Calendar Section: [History](#).

## MAJOR PROGRAM IN HUMAN BIOLOGY (SCIENCE) - SCMAJ0215

Supervisor Email: [human-biology@utsc.utoronto.ca](mailto:human-biology@utsc.utoronto.ca)

The Major in Human Biology provides training and background in general biology with the opportunity to concentrate on courses in upper years that are related to human health. Upper year courses are available in physiology, cell and molecular biology, anatomy, microbiology, pathology, endocrinology, anthropology, psychology and biochemistry. This program is suitable for students with an interest in applied biology in health sciences or in social sciences related to human health.

### Enrolment Requirements

Students apply to the Major Program in Human Biology after completing a minimum of 4.0 credits, including 1.0 credit in Biology (excluding [BIOA11H3](#)), 1.0 credit in Chemistry, and 0.5 credit in Mathematics (excluding [MATA02H3](#)) or Statistics. Students are admitted on the basis of academic performance.

Application for admission is made to the Office of the Registrar through ACORN, in April/May and July/August. See the UTSC Office of the Registrar's [website](#) for more information on program selection.

### Program Requirements:

This program consists of 8.5 credits.

### Required Courses and Suggested Course Sequence

*First Year***1. 1.0 Credit of Introductory Biology Courses**[BIOA01H3](#) Life on Earth: Unifying Principles[BIOA02H3](#) Life on Earth: Form, Function and Interactions**2. 1.0 Credit in Introductory Chemistry Courses**[CHMA10H3](#) Introductory Chemistry I: Structure and Bonding[CHMA11H3](#) Introductory Chemistry II: Reactions and Mechanisms or [CHMA12H3](#) Advanced General Chemistry]**3. 1.0 Credit in Introductory Psychology Courses**[PSYA01H3](#) Introduction to Biological and Cognitive Psychology[PSYA02H3](#) Introduction to Clinical, Developmental, Personality and Social Psychology**4. 0.5 Credit in Mathematics or Statistics**

Choose From:

[MATA29H3](#) Calculus I for the Life Sciences[MATA30H3](#) Calculus I for Physical Sciences[STAB22H3](#) Statistics I[PSYB07H3](#) Data Analysis in Psychology*Second Year***5. 2.5 Credits of Biology Core Courses**[BIOB10H3](#) Cell Biology[BIOB11H3](#) Molecular Aspects of Cellular and Genetic Processes[BIOB34H3](#) Animal Physiology[BIOB50H3](#) Ecology[BIOB51H3](#) Evolutionary Biology[BIOB90H3](#) Integrative Research Poster Project (CR/NCR 0.0 credit)\*

**\*Note:** Completion of [BIOB90H3](#) is a graduation requirement for students in this program. Concurrent enrolment in at least one of the BIO B-level courses listed above is required for enrolment in [BIOB90H3](#). Please see [BIOB90H3](#) in the Calendar for important information.

**6. 0.5 Credit in a Biology Core Lab**

Choose From:

[BIOB32H3](#) Animal Physiology Laboratory[BIOB33H3](#) Human Development and Anatomy*Third/Fourth Years***7. 1.5 Credits of C-Level Courses**

Choose From:

[BIOC10H3](#) Cell Biology: Proteins from Life to Death[BIOC14H3](#) Genes, Environment and Behaviour[BIOC15H3](#) Genetics[BIOC16H3](#) Evolutionary Genetics and Genomics[BIOC17H3](#) Microbiology[BIOC19H3](#) Animal Developmental Biology[BIOC20H3](#) Principles of Virology[BIOC21H3](#) Vertebrate Histology: Cells and Tissues[BIOC32H3](#) Human Physiology I[BIOC34H3](#) Human Physiology II[BIOC35H3](#) Principles of Parasitology[BIOC39H3](#) Immunology[BIOC54H3](#) Animal Behaviour[BIOC58H3](#) Biological Consequences of Global Change[BIOC65H3](#) Environmental Toxicology[BIOC90H3](#) Integrative Multimedia Documentary Project (CR/NCR 0.0 credit)\*

**\*Note:** Completion of [BIOC90H3](#) is a graduation requirement for students in this program. Concurrent enrolment in one of the participating BIO C-level courses is required for enrolment in [BIOC90H3](#). Please see [BIOC90H3](#) in the Calendar for important information.

**8. 0.5 Credit of D-Level Courses**

Choose From:

[BIOD06H3](#) Advanced Topics in Neural Basis of Motor Control

[BIOD07H3](#) Advanced Topics and Methods in Neural Circuit Analysis  
[BIOD08H3](#) Theoretical Neuroscience  
[BIOD12H3](#) Protein Homeostasis  
[BIOD15H3](#) Mechanisms of Gene Regulation in Health and Disease  
[BIOD17H3](#) Seminars in Cellular Microbiology  
[BIOD19H3](#) Epigenetics in Health and Disease  
[BIOD20H3](#) Special Topics in Virology  
[BIOD24H3](#) Human Stem Cell Biology and Regenerative Medicine  
[BIOD25H3](#) Genomics  
[BIOD26H3](#) Fungal Biology and Pathogenesis  
[BIOD27H3](#) Vertebrate Endocrinology  
[BIOD29H3](#) Pathobiology of Human Disease  
[BIOD32H3](#) Human Respiratory Pathophysiology  
[BIOD33H3](#) Comparative Animal Physiology  
[BIOD35H3](#) Sports Science  
[BIOD43H3](#) Animal Movement and Exercise  
[BIOD59H3](#) Models in Ecology, Epidemiology and Conservation  
[BIOD65H3](#) Pathologies of the Nervous System  
[BIOD95H3](#) Supervised Study in Biology (topic must be human-related and approved by the program supervisor)  
[HLTD44H3](#) Environmental Contaminants, Vulnerability and Toxicity

## Calendar Section: [Biological Sciences](#)

## MAJOR PROGRAM IN HUMAN GEOGRAPHY (ARTS) - SCMAJ1666H

A Major Program for students interested in Human Geography as an academic discipline. This Program equips students with the knowledge and skills needed to understand contemporary social science thought in the context of the communities, societies, and economies formed by human populations, and the ways in which location, landscape, and spatial context shape (and are shaped by) social structures, functioning, and behaviour.

*Guidelines for 1st year course selection* Students intending to complete the Major Program in Human Geography are required to take two of [GGRA02H3](#), [GGRA03H3](#) or [GGRA35H3](#). Enrollment in [GGRA35H3](#) is limited and restricted to first year students. Students are also encouraged to take [GGRA30H3](#) in their first year as a methods course.

*Guidelines for Major Program completion:* Courses in the Major Program in Human Geography are divided into three main subdisciplinary areas of focus: Urban Geography, Social/Cultural Geography and Environmental Geography. Major students are encouraged to focus on two areas of focus after second year.

### Program Requirements

The Major Program in Human Geography requires a total of 7.0 full credits as follows:

#### 1. Foundations of Human Geography (1.0 credit from the following):

[GGRA02H3](#) The Geography of Global Processes  
[GGRA03H3](#) Cities and Environments  
[GGRA35H3](#) The Great Scarborough Mashup: People, Place, Community, Experience

#### 2. Theory and Concepts in Human Geography (2.0 credits):

[GGRB02H3](#) The Logic of Geographical Thought

and

1.5 credits from the following:

[GGRB05H3](#) Urban Geography  
[GGRB13H3](#) Social Geography  
[GGRB18H3/ESTB02H3](#) Whose Land Is It Anyway?, Indigenous Peoples, the Crown, and Land in Canada  
[GGRB21H3](#) Political Ecology: Nature, Society and Environmental Change  
[GGRB28H3](#) Geographies of Disease  
[GGRB55H3](#) Cultural Geography

#### 3. Methods (1.0 credit from the following):

[GGRA30H3](#) Geographic Information Systems (GIS) and Empirical Reasoning  
[GGRB03H3](#) Writing Geography  
[GGRB30H3](#) Fundamentals of GIS I  
[GGRB32H3](#) Fundamentals of GIS II  
[GGRC31H3](#) Qualitative Geographical Methods: Place and Ethnography  
[STAB23H3](#) Introduction to Statistics for the Social Sciences

**4. Applications (2.5 credits):**

2.5 credits at the C- and/or D-level in GGR courses

**5. Advanced Applications (0.5 credit):**

0.5 credit at the D-level in GGR courses

**Calendar Section: [Geography](#)**

## MAJOR PROGRAM IN INTERNATIONAL DEVELOPMENT STUDIES (ARTS) - SCMAJ2540

**Program Requirements**

This program requires 8.0 credits of which at least 2.0 credits must be at the C- or D-level.

**1. Introduction to International Development Studies (0.5 credit)**

[IDSA01H3](#) Introduction to International Development Studies

**2. Core courses in International Development (1.5 credits)**

1.5 credits from the following:

[IDSB01H3](#) Political Economy of International Development

[IDSB02H3](#) Development and Environment

[IDSB04H3](#) Introduction to International/Global Health

[IDSB06H3](#) Equity, Ethics and Justice in International Development

[IDSB07H3](#) Confronting Development's Racist Past and Present

[POLB90H3](#) Comparative Development in International Perspective

(Students wishing to take [IDSB01H3](#) should be aware that there are A-level prerequisites for this course.)

**3. Methods for International Development Studies (1.5 credits)**

[IDSC04H3](#) Project Management I

and

0.5 credit in quantitative/statistical methods from the following:

[ANTC35H3](#) Quantitative Methods in Anthropology

[MGEB11H3](#) Quantitative Methods in Economics I

[GGRA30H3](#) Geographic Information Systems (GIS) and Empirical Reasoning

[GGRB30H3](#) Fundamentals of GIS I

[HLTB15H3](#) Introduction to Health Research Methodology

[STAB23H3](#) Introduction to Statistics for the Social Sciences

and

0.5 credit in qualitative methods from the following:

[ANTB19H3](#) Ethnography and the Comparative Study of Human Societies

[HLTC04H3](#) Fieldwork Practices in Health and Society Research

[GGRC31H3](#) Qualitative Geographical Methods: Place and Ethnography

[POLC78H3](#) Political Analysis I

[WSTB05H3](#) Power in Knowledge Production

**4. Specialized Courses (4.5 credits)**

4.5 credits from the courses listed in Requirement 5 of the B.A. version of the Specialist Program in IDS with at least 1.0 credit from each of TWO of the clusters. [POLB91H3](#) may be counted toward this requirement.

**Calendar Section: [International Development Studies](#)**

## MAJOR PROGRAM IN LINGUISTICS (ARTS) - SCMAJ0506

For curriculum inquiries, contact the department's Program Coordinator: [dls-ua@utsc.utoronto.ca](mailto:dls-ua@utsc.utoronto.ca)

**Program Requirements**

Students must complete 8.0 credits, as follows:

**1. 2.5 credits as follows:**

[LINA01H3](#) Introduction to Linguistics  
[LINA02H3](#) Applications of Linguistics  
[LINB04H3](#) Phonology I  
[LINB06H3](#) Syntax I  
[LINB09H3](#) Phonetics: The Study of Speech Sounds

**2. 0.5 credit from the following:**

[LINB10H3](#) Morphology  
[LINB20H3](#) Sociolinguistics  
[LINC12H3](#) Semantics: The Study of Meaning

**3. 4.0 further credits in LIN and/or PLI, of which at least 2.0 credits must be at the C- or D-level.**

**4. 1.0 credit of language study in one or more languages, which may include ECT, FRE, or LGG courses; language courses at another campus; [LINB60H3](#) or [LINB62H3](#) or [LINC61H3](#).**

## Calendar Section: [Linguistics](#)

# MAJOR PROGRAM IN MATHEMATICS (SCIENCE) - SCMAJ1165

Supervisor of Studies: N. Breuss (416-287-7226) Email: [n.breuss@utoronto.ca](mailto:n.breuss@utoronto.ca)

### Program Objectives

This program provides a solid foundation in basic areas of mathematics, especially those with applications in other disciplines. This program is intended to be combined with other programs, typically a major program in another discipline.

### Enrolment Requirements

Enrolment in the Major Program in Mathematics is limited. Students may apply to enter the program after completing 4.0 credits, and must meet the requirements described below:

**1. Students already admitted to the UTSC Year 1 Mathematics admissions category:**

*Required Courses:*

Students must have passed the following CSC and MAT courses: [CSCA08H3](#), [[CSCA67H3](#) or [MATA67H3](#)], [MATA22H3](#), [MATA31H3](#), and [MATA37H3](#).

*Required Grades:*

Students that meet all of the following requirements will be admitted to the Mathematics Major POST:

- A cumulative grade point average (CGPA) of at least 2.0 over the following courses: CSC/[MATA67H3](#), [MATA22H3](#), [MATA31H3](#), and [MATA37H3](#); and
- A final grade of at least B in one of the following: CSC/[MATA67H3](#), [MATA22H3](#), and [MATA37H3](#).

**2. Students admitted to other UTSC Year 1 admissions categories:**

Students that have been admitted to other CMS admissions categories (Computer Science or Statistics) or any other of the UTSC Year 1 admissions categories are eligible to apply for a Mathematics Major POST. Admission will be based on academic performance in the required A-level courses, identified above. The admission requirements change each year depending on available spaces and the pool of eligible applicants, and students are cautioned that there is no guarantee of admission; as such, students are strongly advised to plan to enroll in backup programs.

For more information about the admission requirements, please visit the following [CMS webpage](#).

### Program Requirements

This stream requires a total of 8.5 credits, chosen so as to satisfy all of the following requirements:

**1. Foundational courses - 5.5 credits from the following:**

[[MATA67H3](#) or [CSCA67H3](#) Discrete Mathematics]

[MATA22H3](#) Linear Algebra I for Mathematical Sciences  
[MATA31H3](#) Calculus I for Mathematical Sciences  
[MATA37H3](#) Calculus II for Mathematical Sciences  
[CSCA08H3](#) Introduction to Computer Science I  
[MATB24H3](#) Linear Algebra II  
[MATB41H3](#) Techniques of the Calculus of Several Variables I  
[MATB42H3](#) Techniques of the Calculus of Several Variables II  
[MATB44H3](#) Differential Equations I  
[STAB52H3](#) Introduction to Probability  
[\[MATC01H3](#) Groups and Symmetry OR [MATC15H3](#) Introduction to Number Theory]

## 2. Further analysis courses - 1.0 credit from the following:

[MATB43H3](#) Introduction to Analysis  
[MATC27H3](#) Introduction to Topology  
[MATC34H3](#) Complex Variables  
[MATC46H3](#) Differential Equations II  
[MATD35H3](#) Introduction to Discrete Dynamical Systems  
[MATD46H3](#) Partial Differential Equations  
[MATD67H3](#) - Differentiable Manifolds

## 3. Further algebra, geometry, and discrete mathematics courses - 1.0 credit from the following:

[MATC01H3](#) Groups and Symmetry  
[MATC09H3](#) Introduction to Mathematical Logic  
[MATC15H3](#) Introduction to Number Theory  
[MATC32H3](#) Graph Theory and Algorithms for its Applications  
[MATC44H3](#) Introduction to Combinatorics  
[MATC63H3](#) Differential Geometry  
[MATD01H3](#) Fields and Groups  
[MATD02H3](#) Classical Plane Geometries and their Transformations  
[MATD44H3](#) Topics in Combinatorics

## 4. Elective courses - 1.0 credit from the following:

[MATB61H3](#) Linear Programming and Optimization  
[STAB57H3](#) Introduction to Statistics  
[MATD50H3](#) Mathematical Introduction to Game Theory

Any C- or D-level MAT, STA, or CSC course, excluding [STAC32H3](#), [STAC53H3](#) and [STAD29H3](#)

## Recommended Writing Course

Students are urged to take a course from the following list of courses by the end of their second year.

[ANTA01H3](#), [ANTA02H3](#), [CLAA06H3](#), (CTLA19H3), [CTLA01H3](#), [ENGA10H3](#), [ENGA11H3](#), [ENGB06H3](#), [ENGB07H3](#),  
[ENGB08H3](#), [ENGB09H3](#), [ENGB17H3](#), [ENGB19H3](#), [ENGB50H3](#), (ENGB51H3), [GGRA02H3](#), [GGRA03H3](#), [GGRB05H3](#),  
 (GGRB06H3), (HISA01H3), (HLTA01H3), [ACMA01H3](#), (HUMA01H3), (HUMA11H3), (HUMA17H3), (LGGA99H3), [LINA01H3](#),  
[PHLA10H3](#), [PHLA11H3](#), [WSTA01H3](#).

## Calendar Section: [Mathematics](#)

# MAJOR PROGRAM IN MEDIA AND COMMUNICATION STUDIES - Journalism Studies Stream (ARTS) - SCMAJJSS2

Undergraduate Advisor: Email: [mds-undergrad-advisor@utsc.utoronto.ca](mailto:mds-undergrad-advisor@utsc.utoronto.ca)

In the context of the complexity of the contemporary media environment and journalism's central role in how information is disseminated, the Major in Media, Journalism and Digital Cultures has two streams: Media Studies and Journalism Studies. Through common core courses and courses unique to each stream, students consider the ubiquity of media in contemporary society and examine media's cultural, political, economic, and social implications. Because media is centrally placed as a means through which democratic discussion occurs in the public sphere, the development of media literacy skills is crucial in maintaining an informed citizenry and paramount to students' individual empowerment.

As media scholar W. James Potter has written: "Becoming more media literate gives you a much clearer perspective to see the border between your real world and the world manufactured by the media. When you are media literate, you have clear maps to help you navigate better in the media world so that you can get to those experiences and information you want

without becoming distracted by those things that harm you.” (Media Literacy, 2012)

The **Media Studies Stream** offers students theoretical and critical thinking tools to examine what it means to live in a highly-mediated, media-focused visual and auditory culture. Students study how media works in today’s world at local, regional and global scales; the history of media and technology and its development and use across different cultures; how media industries manufacture, manage, and disseminate information; and how media form and content shape knowledge and meaning from historical, philosophical, cinematic and artistic perspectives, among many others. In studying media, students hone their media literacy skills and learn to critically evaluate the content of media and analyze its underlying ideologies and their implications within the cultural, political, economic, and social realms.

While all forms of journalism are examples of media, not all media are journalistic in nature. The **Journalism Studies Stream** is ideal for students who are interested in studying media with a specific focus on journalism, the news media industry, as well as journalism’s form, function and meaning in a global and democratic society. It offers a comprehensive program of study and research with an emphasis on scholarly, conceptual understandings of journalism, including how journalism functions as an agent of change. It provides students a critical understanding of the role of journalism, its relationship to new technologies, and how cultures of information sharing are in the process of social change and what this means from cultural, political, economic, and social points of view. In critically studying journalism, students hone their media literacy skills to comprehend, navigate, and adapt to today’s complicated and ever changing media environment, whether as journalists, policy advocates, or simply as informed citizens.

### Guide to Course Selection

The Media Studies and Journalism Studies streams require 4.0 credits as a common core.

During their first year, students in both streams should take [MDSA01H3](#) Introduction to Media Studies, and MDSA02 History of Media. Students in the Journalism Studies stream should also take [JOUA01H3](#) Introduction to Journalism and News Literacy I and [JOUA02H3](#) Introduction to Journalism II.

### Program Requirements

Students must complete 8.0 credits including 2.0 credits at the C- or D-level:

#### Core (3.0 credits)

##### 1. Introductory Courses (1.0 credit):

[MDSA10H3](#) Media Foundations

[MDSA11H3](#) Media Ethics

##### 2. 0.5 credit from the following (please note that you can only enroll in a maximum of 0.5 credit from the following list:

[MDSB11H3](#) Media and the Arts

[MDSB21H3](#) Media and Society

[MDSB31H3](#) Media and Institutions

##### 3. 1.5 additional credits at MDS B-level

##### 4. 0.5 additional credits at MDS C-level

#### Media Studies Stream (5.0 credits)

##### 5. [MDSA13H3](#) Media Histories

##### 6. 1.5 additional credits at MDSB-level

##### 7. 2.0 additional credits at MDS C-level including 0.5 credits from the following (please note that you can enroll in a maximum of 0.5 credit from the following list):

[MDSC10H3](#) Advanced Studies in Media and Arts

[MDSC20H3](#) Advanced Studies in Media and Society

[MDSC30H3](#) Advanced Studies in Media and Institutions

##### 8. 0.5 credit from the following (please note that you can enroll in a maximum of 0.5 credit from the following list):

[MDSD10H3](#) Senior Seminar: Topics in Media and Arts

[MDSD20H3](#) Senior Seminar: Topics in Media and Society

[MDSD30H3](#) Senior Seminar: Topics in Media and Institutions

#### Journalism Studies Stream (5.0 credits)



**5. 1.0 credit as follows:**[JOUA01H3](#) Introduction to Journalism and News Literacy I[JOUA02H3](#) Introduction to Journalism II**6. 2.0 credits as follows:**[JOUB01H3](#) Covering Immigration and Transnational Issues[JOUB02H3](#) Critical Journalism[JOUB24H3](#) Journalism in the Age of Digital Media[JOUB39H3](#) Fundamentals of Journalistic Writing**7. 1.0 additional credit at JOUC-level:**[JOUC11H3](#) Media Activism[JOUC22H3](#) Understanding Scandals[JOUC30H3](#) Critical Approaches to Style, Form and Narrative[JOUC31H3](#) Journalism, Information Sharing and Technological Change[JOUC60H3](#) Diasporic Media[JOUC62H3](#) Media, Journalism and Digital Labour[JOUC80H3](#) Understanding Audiences in the Digital Age**8. 0.5 additional credit at JOUD-level (except [JOUD10H3](#))****Calendar Section: [Media Studies](#)**

## MAJOR PROGRAM IN MEDIA AND COMMUNICATION STUDIES - Media Studies Stream (ARTS) - SCMAJMSS2

Undergraduate Advisor: Email: [acm-pm@utsc.utoronto.ca](mailto:acm-pm@utsc.utoronto.ca)

In the context of the complexity of the contemporary media environment and journalism's central role in how information is disseminated, the Major in Media and Communication Studies has two streams: Media Studies and Journalism Studies. Through common core courses and courses unique to each stream, students consider the ubiquity of media in contemporary society and examine media's cultural, political, economic, and social implications in the contexts of class, race, gender, sexuality, and other forms of diversity with a focus on national and transnational intersectional perspectives. The program also highlights three critical cluster areas that inform the critical study of media: (i) media and the arts; (ii) media and society; (iii) media and institutions. Because media is centrally placed as a means through which democratic discussion occurs in the public sphere, the development of media literacy skills is crucial in maintaining an informed citizenry and paramount to students' individual empowerment. Students can navigate through the program flexibly across the three cluster areas, while also developing the capacity to recognize how these clusters relate to one another and the contexts in which they intersect to shape identities and communities and to influence power relations.

The **Media Studies Stream** offers students theoretical and analytical tools, alongside digital methods, to examine what it means to live in a highly-mediated, media-focused visual and auditory culture. Students study how media works in today's world at local, regional and global scales; the history of media and technology and its development and use across different cultures; how media industries manufacture, manage, and circulate information; and how media form and content shape knowledge and meaning from historical, philosophical, and artistic perspectives, among many others. In studying media, students hone their media literacy skills and learn to critically evaluate the content of media and analyze its underlying ideologies and their implications within the distinct yet intersecting realms of art, society, and institutions.

While all forms of journalism are examples of media, not all media are journalistic in nature. The **Journalism Studies Stream** is ideal for students who are interested in studying media with a specific focus on journalism, the news media industry, as well as journalism's form, function and meaning in a global and democratic society. It offers a comprehensive program of study and research with an emphasis on scholarly, conceptual understandings of journalism, including how journalism functions as an agent of change. It provides students a critical understanding of the role of journalism, its relationship to new technologies, and how cultures of information sharing are in the process of social change and what this means from cultural, political, economic, and social points of view. In critically studying journalism, students hone their media literacy skills to comprehend, navigate, and adapt to today's complicated and ever-changing media environment, whether as journalists, policy advocates, or simply as informed citizens.

**Guide to Course Selection**

The Media Studies and Journalism Studies streams require 4.0 credits as a common core. During their first year, students in both streams should take [MDSA10H3](#) Media Foundations, and [MDSA13H3](#) Media Ethics. In addition to these shared

courses, students in the Media Studies stream should take [MDSA13H3](#) Media Histories. Students in the Journalism Studies stream should also take [JOUA01H3](#) Introduction to Journalism and News Literacy I and [JOUA02H3](#) Introduction to Journalism II.

### Program Requirements

Students must complete 8.0 credits including 2.0 credits at the C- or D-level:

#### Core (3.5 credits)

##### 1. Introductory Courses (1.0 credit):

[MDSA10H3](#) Media Foundations

[MDSA11H3](#) Media Ethics

##### 2. 0.5 credit from the following (please note that you can enroll in a maximum of 0.5 credit from the following list):

[MDSB11H3](#) Media and the Arts

[MDSB21H3](#) Media and Society

[MDSB31H3](#) Media and Institutions

##### 3. 1.5 additional credits at MDSB-level

##### 4. 0.5 additional credits at MDSC-level

#### Media Studies Stream (4.5 credits)

##### 5. [MDSA13H3](#) Media Histories

##### 6. 1.5 additional credits at MDSB-level

##### 7. 2.0 additional credits at MDSC-level including 0.5 credits from the following (please note that you can enroll in a maximum of 0.5 credit from the following list):

[MDSC10H3](#) Advanced Studies in Media and the Arts

[MDSC20H3](#) Advanced Studies in Media and Society

[MDSC30H3](#) Advanced Studies in Media and Institutions

##### 8. 0.5 credit from the following (please note that you can enroll in a maximum of 0.5 credit from the following list):

[MDSD10H3](#) Senior Seminar: Topics in Media and Arts

[MDSD20H3](#) Senior Seminar: Topics in Media and Society

[MDSD30H3](#) Senior Seminar: Topics in Media and Institutions

## Calendar Section: [Media Studies](#)

## MAJOR PROGRAM IN MENTAL HEALTH STUDIES (SCIENCE) - SCMAJ1160M

Enrolment in the Program is limited. Admission will require:

- (a.) completion of any Grade 12 U/M high school math course or equivalent (or successful completion of the UTSC Online Mathematics Preparedness Course or equivalent), and
- (b.) completion of Grade 12 U/M high school biology or equivalent (or [BIOA11H3](#) or equivalent), and
- (c.) completion of a minimum of 4.0 credits, including 1.0 credit in Psychology, and
- (d.) either (1) a final grade of 67% or higher in both of [PSYA01H3](#) and [PSYA02H3](#), or (2) a final grade of 60% or higher in both of [PSYA01H3](#) and [PSYA02H3](#), and a final grade of 72% or higher in two B-level psychology courses.

Application for admission will be made to the Office of the Registrar through ACORN, during the Limited Program application periods. For more information on applying to limited enrolment programs, please visit the [Office of the Registrar](#) website.

### Program Requirements

The program requires 7.0 credits, of which at least 2.0 credits must be at the C- or D-level:

##### 1. Introduction to Psychology (1.0 credit):

[PSYA01H3](#) Introduction to Biological and Cognitive Psychology

[PSYA02H3](#) Introduction to Clinical, Developmental, Personality and Social Psychology

**2. Laboratory Methods (1.0 credit):**

[[PSYB70H3](#) Methods in Psychological Science or (PSYB01H3) Psychological Research Laboratory or (PSYB04H3)

Foundations in Psychological Research]

[PSYC37H3](#) Psychological Assessment

**3. Statistical Methods (0.5 credit):**

[PSYB07H3](#) Data Analysis in Psychology

[STAB22H3](#) Statistics I

[STAB23H3](#) Introduction to Statistics for the Social Sciences

**4. Personality and Clinical Psychology (1.0 credit):**

[PSYB30H3](#) Introduction to Personality

[PSYB32H3](#) Introduction to Clinical Psychology

**5. Psychosocial and Psychobiological Breadth (1.5 credits):**

Students are required to take 1.0 credit from one group and 0.5 credit from the other group:

*Psycho-Social Grouping:*

[PSYB38H3](#)/(PSYB45H3) Introduction to Behaviour Modification

[PSYC15H3](#) Foundations in Community Psychology

[PSYC17H3](#) Meeting Minds: The Psychology of Interpersonal Interactions

[PSYC18H3](#) The Psychology of Emotion

[PSYC30H3](#)/(PSYC35H3) Advanced Personality Psychology

[PSYC34H3](#) Happiness and Meaning

[PSYC36H3](#) Psychotherapy

[PSYC39H3](#) Psychology and the Law

*Psycho-Biological Grouping:*

[[PSYB55H3](#) Introduction to Cognitive Neuroscience or (PSYB65H3) Human Brain and Behaviour]

[PSYB64H3](#) Introduction to Behavioural Neuroscience

[PSYC31H3](#) Neuropsychological Assessment

(PSYC33H3) Neuropsychological Rehabilitation

[PSYC38H3](#) Adult Psychopathology

[PSYC62H3](#) Drugs and the Brain

**6. Seminar in Psychology at the D-level (0.5 credits)**

All PSY D-level courses are considered "seminars", with the exception of [PSYD98Y3](#).

**7. Additional credits in Psychology at the B-level or higher (1.5 credits)**

Supervised study [[PSYC90H3](#) or [PSYC93H3](#)] or thesis [[PSYD98Y3](#)] courses may be used to fulfill a maximum of 0.5 credit.

**Calendar Section: [Psychology](#).**

## MAJOR PROGRAM IN MOLECULAR BIOLOGY, IMMUNOLOGY AND DISEASE (SCIENCE) - SCMAJ0220

Supervisor Email: [molecular-biology-immunology@utsc.utoronto.ca](mailto:molecular-biology-immunology@utsc.utoronto.ca)

This program provides training and background in general biology with the opportunity to concentrate on courses in upper years that are related to immunology, infection and disease. Upper year courses are available in microbiology, immunology, biochemistry and pathobiology of disease. This program is suitable for students with an interest in molecular biology and disease.

**Enrolment Requirements**

Students apply to the Major Program in Molecular Biology, Immunology and Disease after completing a minimum of 4.0 credits, including 1.0 credit in Biology (excluding [BIOA11H3](#)), 1.0 credit in Chemistry, and 0.5 credit in Mathematics (excluding [MATA02H3](#)) or Statistics. Students are admitted on the basis of academic performance.

Application for admission is made to the Office of the Registrar through ACORN, in April/May and July/August. See the UTSC Office of the Registrar's [website](#) for more information on program selection.

**Program Requirements**

This program consists of 8.5 credits.

*First Year***1. 1.0 Credit of Introductory Biology Courses**[BIOA01H3](#) Life on Earth: Unifying Principles[BIOA02H3](#) Life on Earth: Form, Function and Interactions**2. 1.0 Credit of Introductory Chemistry Courses**[CHMA10H3](#) Introductory Chemistry I: Structure and Bonding[\[CHMA11H3](#) Introductory Chemistry II: Reactions and Mechanisms or [CHMA12H3](#) Advanced General Chemistry]**3. 0.5 Credit in Mathematics or Statistics**

Choose from:

[MATA29H3](#) Calculus I for the Life Sciences[MATA30H3](#) Calculus I for Physical Sciences[STAB22H3](#) Statistics I[PSYB07H3](#) Data Analysis in Psychology*Second Year***4. 2.5 Credits of Biology Core Courses**[BIOB10H3](#) Cell Biology[BIOB11H3](#) Molecular Aspects of Cellular and Genetic Processes[BIOB34H3](#) Animal Physiology[BIOB50H3](#) Ecology[BIOB51H3](#) Evolutionary Biology[BIOB90H3](#) Integrative Research Poster Project (CR/NCR 0.0 credit)\*

**\*Note:** Completion of [BIOB90H3](#) is a graduation requirement for students in this program. Concurrent enrolment in at least one of the BIO B-level courses listed above is required for enrolment in [BIOB90H3](#). Please see [BIOB90H3](#) in the Calendar for important information.

**5. 0.5 Credit in a Biology Core Lab**

Choose From:

[BIOB12H3](#) Cell and Molecular Biology Laboratory[BIOB32H3](#) Animal Physiology Laboratory[BIOB33H3](#) Human Development and Anatomy*Third/Fourth Years***6. 1.5 Credit of Required C-level Courses**[BIOC17H3](#) Microbiology[BIOC20H3](#) Principles of Virology[BIOC39H3](#) Immunology**7. 1.0 Credit of Additional C-level Courses**

Choose from:

[BIOC10H3](#) Cell Biology: Proteins from Life to Death[BIOC12H3](#) Biochemistry I: Proteins & Enzymes[BIOC13H3](#) Biochemistry II: Bioenergetics and Metabolism[BIOC14H3](#) Genes, Environment and Behaviour[BIOC15H3](#) Genetics[BIOC19H3](#) Animal Developmental Biology[BIOC31H3](#) Plant Development and Biotechnology[BIOC35H3](#) Principles of Parasitology[BIOC90H3](#) Integrative Multimedia Documentary Project (CR/NCR 0.0 credit)\*

**\*Note:** Completion of [BIOC90H3](#) is a graduation requirement for students in this program. Concurrent enrolment in one of the participating BIO C-level courses is required for enrolment in [BIOC90H3](#). Please see [BIOC90H3](#) in the Calendar for important information.

**8. 0.5 credit of D-level Biology Courses**

Choose from:

[BIOD12H3](#) Protein Homeostasis[BIOD13H3](#) Herbology: The Science Behind Medicinal Plants[BIOD15H3](#) Mechanisms of Gene Regulation in Health and Disease[BIOD17H3](#) Seminars in Cellular Microbiology[BIOD19H3](#) Epigenetics in Health and Disease[BIOD20H3](#) Special Topics in Virology[BIOD23H3](#) Special Topics in Cell Biology

[BIOD24H3](#) Human Stem Cell Biology and Regenerative Medicine  
[BIOD25H3](#) Genomics  
[BIOD26H3](#) Fungal Biology and Pathogenesis  
[BIOD27H3](#) Vertebrate Endocrinology  
[BIOD29H3](#) Pathobiology of Human Disease

## Calendar Section: [Biological Sciences](#)

# MAJOR PROGRAM IN MUSIC AND CULTURE (ARTS) - SCMAJ15902

ACM Program Manager Email: [acm-pa@utsc.utoronto.ca](mailto:acm-pa@utsc.utoronto.ca)

### Program Requirements

Students are required to complete 8.0 credits as follows:

#### 1. Courses at the A-level (1.5 credits)

[MUZA80H3](#)/(VPMA95H3) Foundations in Musicianship (this is waived for students who pass the placement test conducted in Week 1 of the term)

and

1.0 credit in Performance. Students must choose the graded option for this credit.

#### 2. Courses at the B-level (1.5 credits)

[MUZB01H3](#)/(VPMB01H3) Introduction to Community Music

[MUZB20H3](#)/(VPMB82H3) Music in the Contemporary World

[MUZB80H3](#)/(VPMB88H3) Developing Musicianship

#### 3. 5.0 additional credits in Music and Culture (MUZ) courses, at least 2.0 of which must be at the C-level, and at least 0.5 of which must be at the D-level.

Note that students who passed the [MUZA80H3](#) placement test will be taking 5.5 credits

Students are encouraged to develop the depth of learning through study in one or two of the areas of focus described in the [Music and Culture Areas of Focus Table](#).

Students can count a maximum of 2.0 credits of Performance courses toward component 3 of the program completion requirements. Students who count Performance courses towards component 3 must choose the graded option.

## Calendar Section: [Music and Culture](#)

# MAJOR PROGRAM IN NEUROSCIENCE (SCIENCE) - SCMAJ1472

The Major program in Neuroscience focuses on both Cellular/Molecular and Systems/Behavioural Neuroscience and requires less research-intensive coursework than the Specialist programs. The Major focuses more on how to be a skilled consumer of neuroscience research, providing a valuable foundation for a variety of career paths.

Students who wish to combine the Major in Neuroscience with a Major in any one of Biology, Human Biology, Mental Health Studies or Psychology are advised that they must complete 12.0 distinct credits to receive a certification of the completion of both programs. For more information, see the [Degree Requirements](#) section in the UTSC *Calendar*. Consultation with the respective Program Supervisors in the selection of credits is recommended.

Enrolment in the program is limited. Students may apply after completing a minimum of 4.0 credits including: [BIOA01H3](#), [BIOA02H3](#), [CHMA10H3](#), [[CHMA11H3](#) or [CHMA12H3](#)], [PSYA01H3](#), and [PSYA02H3](#). Admission to this program requires a CGPA of 2.0 or higher. Application for admission will be made to the Office of the Registrar through ACORN, during the Limited Program application periods. For more information on applying to limited enrolment programs, please visit the [Office of the Registrar](#) website.

### Program Requirements

Students must complete a total of 8.5 credits.

**1. Scientific Foundations (3.0 credits)**[BIOA01H3](#) Life on Earth: Unifying Principles[BIOA02H3](#) Life on Earth: Form, Function and Interactions[CHMA10H3](#) Introductory Chemistry I: Structure and Bonding[\[CHMA11H3](#) Introductory Chemistry II: Reactions and Mechanisms or [CHMA12H3](#) Advanced General Chemistry][PSYA01H3](#) Introduction to Biological and Cognitive Psychology[PSYA02H3](#) Introduction to Clinical, Developmental, Personality and Social Psychology**2. Neuroscience Foundations (3.5 credits)**[BIOB10H3](#) Cell Biology[BIOB11H3](#) Molecular Aspects of Cellular and Genetic Processes[NROB60H3](#) Neuroanatomy Laboratory[NROB61H3](#) Neurophysiology[\[PSYB55H3](#) Introduction to Cognitive Neuroscience or (PSYB65H3) Human Brain and Behaviour][PSYB70H3](#) Methods in Psychological Science[\[PSYB07H3](#) Data Analysis in Psychology or [STAB22H3](#) Statistics I]**3. Advanced Foundations (1.5 credits)***at least 1.0 credit must be taken from:*[NROC34H3](#) Neuroethology[NROC36H3](#) Molecular Neuroscience[NROC61H3](#) Learning and Motivation[NROC64H3](#) Sensorimotor Systems[NROC69H3](#) Synaptic Organization and Physiology of the Brain*the remaining 0.5 credit should be taken from the following:*[BIOC14H3](#) Genes, Environment and Behaviour[NROC60H3](#) Cellular Neuroscience Laboratory[NROC63H3](#) Behavioural Neuroscience Laboratory[NROC90H3](#) Supervised Study in Neuroscience[NROC93H3](#) Supervised Study in Neuroscience[PSYC62H3](#) Drugs and the Brain**4. Capstone Course (0.5 credit)**[BIOD06H3](#) Advanced Topics in Neural Basis of Motor Control[BIOD07H3](#) Advanced Topics and Methods in Neural Circuit Analysis[BIOD19H3](#) Epigenetics in Health and Disease[BIOD45H3](#) Animal Communication[BIOD65H3](#) Pathologies of the Nervous System[NROD08H3](#)/[BIOD08H3](#) Theoretical Neuroscience\*[NROD60H3](#) Current Topics in Neuroscience[NROD61H3](#) Emotional Learning Circuits[NROD66H3](#) Drug Addiction[NROD67H3](#) Neuroscience of Aging[NROD98Y3](#) Thesis in Neuroscience[PSYD62H3](#) Neuroscience of Pleasure and Reward[PSYD66H3](#) Current Topics in Human Brain and Behaviour

\*Note: [NROD08H3](#) has a calculus prerequisite that is not part of this program. Students interested in this course should plan accordingly.

**Calendar Section: [Neuroscience](#)****MAJOR PROGRAM IN PHILOSOPHY (ARTS) - SCMAJ0231**Program Supervisor Email: [philosophy-program-supervisor@utsc.utoronto.ca](mailto:philosophy-program-supervisor@utsc.utoronto.ca)**Program Requirements**

Students must complete at least 7.0 credits in Philosophy including [PHLB50H3](#) Symbolic Logic 1 or [PHLB55H3](#) Puzzles and Paradoxes and at least 3.0 credits must be at the C- or D-level. [MATC09H3](#) can be used as a Philosophy course for these purposes.



**Note:** [PHLB99H3](#) Philosophical Writing and Methodology, is strongly recommended for the Philosophy Specialist and Major programs and is important preparation for advanced C- and D-level studies in Philosophy.

## Calendar Section: [Philosophy](#)

# MAJOR PROGRAM IN PHYSICAL AND HUMAN GEOGRAPHY (ARTS) - SCMAJ1666P

This is an interdepartmental program leading to a B.A. degree in which students combine courses in human geography (GGR prefix) with courses in physical geography (EES prefix).

### Guidelines for first year course selection

EES courses presume a background in physical sciences and mathematics. It is recommended that first year students take [EESA01H3](#), [EESA06H3](#), [GGRA02H3](#) and [GGRA03H3](#) and at least 1.0 credit from among [[BIOA01H3](#) and [BIOA02H3](#)], [[CHMA10H3](#) and [CHMA11H3](#)], [[PHYA10H3](#) or [PHYA11H3](#)], [[MATA30H3](#) and [MATA35H3](#)/A36H3/A37H3].

### Program Requirements

The Major Program in Physical and Human Geography requires the completion of a total of 8.0 credits of which 4.0 credits are to be EES courses, and 4.0 credits are to be GGR or CIT courses. Among these 8.0 credits, the student must include:

#### 1. 2.0 credits as follows:

[EESA01H3](#) Introduction to Environmental Science  
[EESA06H3](#) Introduction to Planet Earth  
[GGRA02H3](#) The Geography of Global Processes  
[GGRA03H3](#) Cities and Environments

#### 2. 1.5 credits from the following:

[EESB02H3](#) Principles of Geomorphology  
[EESB03H3](#) Principles of Climatology  
[EESB04H3](#) Principles of Hydrology  
[EESB05H3](#) Principles of Soil Science  
[EESB15H3](#) Earth History

#### 3. At least 1.5 credits from the following:

[CITB01H3](#) Canadian Cities and Planning  
[GGRB02H3](#) The Logic of Geographical Thought  
[GGRB05H3](#) Urban Geography  
[GGRB13H3](#) Social Geography  
[GGRB18H3/ESTB02H3](#) Whose Land Is It Anyway?, Indigenous Peoples, the Crown, and Land in Canada  
[GGRB21H3](#) Political Ecology: Nature, Society and Environmental Change  
[GGRB28H3](#) Geographies of Disease  
[GGRB55H3](#) Cultural Geography

#### 4. At least 1.0 credit at the C- or D-level from EES courses

#### 5. At least 1.0 credit at the C- or D-level from GGR or CIT courses

#### 6. At least one additional 0.5 credit from GGR or CIT courses

#### 7. At least one additional 0.5 credit from EES courses

## Calendar Section: [Geography](#)

# MAJOR PROGRAM IN PHYSICAL SCIENCES (SCIENCE) - SCMAJ2010

For an updated list of Program Supervisors, please visit the [Physics and Astrophysics page](#)



The Major Program in Physical Sciences is intended for students desiring a general background in the physical sciences (with an emphasis in the area of astronomy, physics and physical chemistry) but who do not intend to pursue graduate studies. Parallel major Programs for students more interested in the mathematical sciences or in chemistry are offered in Mathematical Sciences, in Chemistry, and in Biochemistry.

#### Program Requirements:

This program requires 8.0 credits as follows:

##### First Year:

[PHYA10H3](#) Physics I for the Physical Sciences  
[PHYA21H3](#) Physics II for the Physical Sciences  
[CHMA10H3](#) Introductory Chemistry I: Structure and Bonding  
[CHMA11H3](#) Introductory Chemistry II: Reactions and Mechanisms  
[\[MATA30H3](#) Calculus I for Physical Sciences or [MATA31H3](#) Calculus I for Mathematical Sciences]  
[MATA22H3](#) Linear Algebra I for Mathematical Sciences  
[\[MATA36H3](#) Calculus II for Physical Sciences or [MATA37H3](#) Calculus II for Mathematical Sciences]

##### Second or Third Year

2.5 credits from the following:

[PHYB10H3](#) Intermediate Physics Laboratory I  
[PHYB21H3](#) Electricity and Magnetism  
[PHYB52H3](#) Thermal Physics  
[PHYB54H3](#) Mechanics: From Oscillations to Chaos  
[PHYB56H3](#) Introduction to Quantum Physics  
[MATB24H3](#) Linear Algebra II  
[MATB41H3](#) Techniques of the Calculus of Several Variables I  
[MATB42H3](#) Techniques of the Calculus of Several Variables II  
[MATB44H3](#) Differential Equations I  
[ASTB23H3](#) Astrophysics of Stars, Galaxies and the Universe  
[CHMB20H3](#) Chemical Thermodynamics and Elementary Kinetics  
[CHMB21H3](#) Chemical Structure and Spectroscopy  
[\[STAB52H3](#) Introduction to Probability or [STAB53H3](#) Introduction to Applied Probability]

##### Third or Fourth Year

2.0 credits from the following:

[PHYB57H3](#) Introduction to Scientific Computing  
[ASTC25H3](#) Astrophysics of Planetary Systems  
[MATC34H3](#) Complex Variables  
[MATC46H3](#) Differential Equations II  
[PHYC50H3](#) Electromagnetic Theory  
[PHYC56H3](#) Quantum Mechanics I  
[PHYC11H3](#) Intermediate Physics Laboratory II  
[PHYC14H3](#) Introduction to Atmospheric Physics  
[PHYC54H3](#) Classical Mechanics  
[PHYD37H3](#) Introduction to Fluid Mechanics  
[PHYD38H3](#) Introduction to Nonlinear Systems and Chaos  
[PSCD02H3](#) Current Questions in Mathematics and Science  
[PHYD26H3](#) Planetary Geophysics  
[PSCD50H3](#) Advanced Topics in Quantum Mechanics  
[\[PHYD01H3](#) Research Project in Physics and Astrophysics or [\\*PHYD02Y3](#) Research Project in Physics and Astrophysics or  
[PHYD72H3](#) Supervised Reading in Physics and Astrophysics]

\*Note: A maximum of 0.5 credit from [PHYD02Y3](#) will count against this requirement. The remaining 0.5 credit can be used to satisfy degree-level requirements.

### Calendar Section: [Physical Sciences](#)

## MAJOR PROGRAM IN PHYSICS AND ASTROPHYSICS (SCIENCE) - SCMAJ0272B

For a list of updated Program Supervisors, please visit the [Physics and Astrophysics website](#).

## Program Requirements

This program requires 8.5 credits as follows:

### First Year

[PHYA10H3](#) Physics I for the Physical Sciences

[PHYA21H3](#) Physics II for the Physical Sciences

[[MATA30H3](#) Calculus I for Physical Sciences or [MATA31H3](#) Calculus I for Mathematical Sciences]

[[MATA22H3](#) Linear Algebra I for Mathematical Sciences or [MATA23H3](#) Linear Algebra I]

[[MATA36H3](#) Calculus II for Physical Sciences or [MATA37H3](#) Calculus II for Mathematical Sciences]

### Second and Later Years

[ASTB23H3](#) Astrophysics of Stars, Galaxies and the Universe

[MATB41H3](#) Techniques of the Calculus of Several Variables I

[MATB42H3](#) Techniques of the Calculus of Several Variables II

[MATB44H3](#) Differential Equations I

[PHYB10H3](#) Intermediate Physics Laboratory I

and

1.5 credits from the following:

[PHYB56H3](#) Introduction to Quantum Physics

[PHYB21H3](#) Electricity and Magnetism

[PHYB52H3](#) Thermal Physics

[PHYB54H3](#) Mechanics: From Oscillations to Chaos

and

2.0 credits from the following:

[ASTC25H3](#) Astrophysics of Planetary Systems

[MATC34H3](#) Complex Variables

[MATC46H3](#) Differential Equations II

[PHYC50H3](#) Electromagnetic Theory

[PHYC56H3](#) Quantum Mechanics I

[PHYC11H3](#) Intermediate Physics Laboratory II

[PHYC14H3](#) Introduction to Atmospheric Physics

[PHYC54H3](#) Classical Mechanics

[PHYD26H3](#) Planetary Geophysics

[PHYD37H3](#) Introduction to Fluid Mechanics

[PHYD38H3](#) Nonlinear Systems and Chaos

[PHYB57H3](#) Introduction to Scientific Computing

[PSCD02H3](#) Current Questions in Mathematics and Science

[PSCD50H3](#) Advanced Topics in Quantum Mechanics

[[PHYD01H3](#) Research Project in Physics and Astrophysics or \*[PHYD02Y3](#) Extended Research Project in Physics and Astrophysics or [PHYD72H3](#) Supervised Reading in Physics and Astrophysics]

\*Note: A maximum of 0.5 credit from [PHYD02Y3](#) will count for this requirement. The remaining 0.5 credit can be used to satisfy the overall degree-level requirements.

## Calendar Section: [Physics and Astrophysics](#)

## MAJOR PROGRAM IN PLANT BIOLOGY (SCIENCE) - SCMAJ1060

Supervisor Email: [plant-biology@utsc.utoronto.ca](mailto:plant-biology@utsc.utoronto.ca)

The Major Program in Plant Biology provides a broad education in all areas of contemporary biology and affords students an opportunity to concentrate on Plant Biology courses in upper years. This program is suitable for students with an interest in biochemistry, biotechnology, cell biology, ecology, evolution, genetics, physiology, and/or development of plants.

### Enrolment Requirements

Students apply to the Major Program in Plant Biology after completing a minimum of 4.0 credits, including 1.0 credit in Biology (excluding [BIOA11H3](#)), 1.0 credit in Chemistry, and 0.5 credit in Mathematics (excluding [MATA02H3](#)) or Statistics. Students are admitted based on academic performance.

Application for admission is made to the Office of the Registrar through ACORN, in April/May and July/August. See the UTSC Office of the Registrar's [website](#) for more information on program selection.

### Program Requirements

Students are required to complete a total of 8.5 credits.

### Required Courses and Suggested Course Sequence:

#### *First Year*

##### **1. 1.0 Credit of Introductory Biology Courses**

[BIOA01H3](#) Life on Earth: Unifying Principles

[BIOA02H3](#) Life on Earth: Form, Function and Interactions

##### **2. 1.0 Credit of Introductory Chemistry Courses**

[CHMA10H3](#) Introductory Chemistry I: Structure and Bonding

[[CHMA11H3](#) Introductory Chemistry II: Reactions and Mechanisms or [CHMA12H3](#) Advanced General Chemistry]

##### **3. 0.5 Credit of Statistics Courses**

Choose From:

[STAB22H3](#) Statistics I

[PSYB07H3](#) Data Analysis in Psychology

#### *Second Year*

##### **4. 2.5 Credits of Biology Core Courses**

[BIOB10H3](#) Cell Biology

[BIOB11H3](#) Molecular Aspects of Cellular and Genetic Processes

[BIOB38H3](#) Plants and Society

[BIOB50H3](#) Ecology

[BIOB51H3](#) Evolutionary Biology

[BIOB90H3](#) Integrative Research Poster Project (CR/NCR 0.0 credit)\*

\***Note:** Completion of [BIOB90H3](#) is a graduation requirement for students in this program. Concurrent enrolment in at least one of the BIO B-level courses listed above is required for enrolment in [BIOB90H3](#). Please see [BIOB90H3](#) in the Calendar for important information.

##### **5. 0.5 Credit of Biology Core Labs**

Choose From:

[BIOB12H3](#) Cell and Molecular Biology Laboratory

[BIOB52H3](#) Ecology and Evolutionary Biology Laboratory

#### *Third Year*

##### **6. 1.5 Credits of C-level Plant Courses**

[BIOC31H3](#) Plant Development and Biotechnology

[BIOC37H3](#) Plants: Life on the Edge

[BIOC40H3](#) Plant Physiology

#### *Third/ Fourth Year*

##### **7. 1.0 Credit of Additional C-level Courses**

Choose From:

[BIOC12H3](#) Biochemistry I: Proteins and Enzymes

[BIOC13H3](#) Biochemistry II: Bioenergetics and Metabolism

[BIOC15H3](#) Genetics

[BIOC17H3](#) Microbiology

[BIOC35H3](#) Principles in Parasitology

[BIOC50H3](#) Macroevolution

[BIOC52H3](#) Field Ecology

[BIOC61H3](#) Community Ecology and Environmental Biology

[BIOC90H3](#) Integrative Multimedia Documentary Project (CR/NCR 0.0 credit)\*

\***Note:** Completion of [BIOC90H3](#) is a graduation requirement for students in this program. Concurrent enrolment in one of the participating BIO C-level courses is required for enrolment in [BIOC90H3](#). Please see [BIOC90H3](#) in the Calendar for important information.

#### *Fourth Year*

##### **8. 0.5 Credit of D-level Biology Courses**

Choose From:

[BIOD12H3](#) Protein Homeostasis

[BIOD13H3](#) Herbology: The Science Behind Medicinal Plants

[BIOD21H3](#) Advanced Molecular Biology Laboratory  
[BIOD26H3](#) Fungal Biology and Pathogenesis  
[BIOD30H3](#) Plant Research and Biotechnology: Addressing Global Problems  
[BIOD37H3](#) Biology of Plant Stress  
[BIOD62H3](#) Symbiosis: Interactions Between Species

Note: Students who are interested in research or graduate studies can choose to take [BIOC99H3](#), [BIOD95H3](#), [BIOD98Y3](#) or [BIOD99Y3](#) supervised study courses with faculty to obtain additional research experience and training in plant biology.

## Calendar Section: [Biological Sciences](#)

# MAJOR PROGRAM IN POLITICAL SCIENCE (ARTS) - SCMAJ2015

### Program Requirements

Students must complete at least 8.0 credits in Political Science as follows:

#### 1. Introduction to Political Science (1.0 credit):

[POLA01H3](#) Critical Issues in Politics I  
[POLA02H3](#) Critical Issues in Politics II

#### 2. Political Theory (1.0 credit):

[POLB72H3](#) Introduction to Political Theory  
 0.5 credit from among the courses listed in the [Political Theory Area of Focus Table](#)

#### 3. Canadian Politics (1.0 credit):

[POLB56H3](#) Canadian Politics and Government  
[POLB57H3](#) The Canadian Constitution and the Charter of Rights

#### 4. At least two of International Relations and/or Comparative Politics (1.0 credit):

[POLB80H3](#) Introduction to International Relations I  
[POLB81H3](#) Introduction to International Relations II  
[POLB90H3](#) Comparative Development in International Perspective  
[POLB91H3](#) Introduction to Comparative Politics

#### 5. At least two of the following from Research Methods (1.0 credit):

[POLB40H3](#) Quantitative Reasoning for Political Science and Public Policy  
[STAB23H3](#) Introduction to Statistics for the Social Sciences or equivalent  
[POLC78H3](#) Political Analysis I

#### 6. Applications (2.5 credits):

2.5 credits in POL or PPG courses of which at least 2.0 must be at the C- and/or D-level

#### 7. Advanced Applications (0.5 credit)

At least 0.5 credit in POL or PPG courses at the D-level

## Calendar Section: [Political Science](#)

# MAJOR PROGRAM IN PSYCHOLOGY (SCIENCE) - SCMAJ1160

Enrolment in the Program is limited. Admission will require:

- (a.) completion of any Grade 12 U/M high school math course or equivalent (or successful completion of the UTSC Online Mathematics Preparedness Course or equivalent), and
- (b.) completion of Grade 12 U/M high school biology or equivalent (or [BIOA11H3](#) or equivalent), and
- (c.) completion of a minimum of 4.0 credits, including 1.0 credit in Psychology, and
- (d.) either (1) a final grade of 67% or higher in both [PSYA01H3](#) and [PSYA02H3](#), or (2) a final grade of 60% or higher in both [PSYA01H3](#) and [PSYA02H3](#), and a final grade of 72% or higher in two B-level psychology courses.

Application for admission will be made to the Office of the Registrar through ACORN, during the Limited Program application

periods. For more information on applying to limited enrolment programs, please visit the [Office of the Registrar](#) website.

## Program Requirements

The Program requires completion of 7.0 credits, of which at least 2.0 credits must be at the C- or D-level:

### 1. Introduction to Psychology (1.0 credit):

[PSYA01H3](#) Introduction to Biological and Cognitive Psychology

[PSYA02H3](#) Introduction to Clinical, Developmental, Personality and Social Psychology

### 2. Laboratory Methods (0.5 credit):

[[PSYB70H3](#) Methods in Psychological Science or ([PSYB01H3](#)) Psychological Research Laboratory or ([PSYB04H3](#)) Foundations in Psychological Research]

### 3. Statistical Methods (0.5 credit):

[[PSYB07H3](#) Data Analysis in Psychology or [STAB22H3](#) Statistics I or [STAB23H3](#) Introduction to Statistics for the Social Sciences]

### 4. Breadth in Psychology at the B-level and C-level (2.5 credits)

Students are required to take 1.5 credits from one of the groups and 1.0 credit from the other group:

- Social and Developmental (courses listed in the 10- and 20-series)
- Perception, Cognition and Physiology (courses listed in the 50- and 60-series)

### 5. Seminar in Psychology at the D-level (0.5 credit)

All PSY D-level courses are considered "seminars", with the exception of [PSYD98Y3](#).

### 6. Additional credits in Psychology at the B-level or higher (2.0 credits)

Of the 2.0 credits, at least 1.0 credit must be at the C-level. Supervised study [[PSYC90H3](#) or [PSYC93H3](#)] or thesis [[PSYD98Y3](#)] courses may be used to fulfill a maximum of 0.5 credit.

## Calendar Section: [Psychology](#).

## MAJOR PROGRAM IN PUBLIC LAW (ARTS) - SCMAJ2030

Enrolment in the Major is limited. Students may apply after completing 4.0 credits and must have achieved a minimum CGPA of 2.0. Students who have completed 10.0 or more credits are not eligible.

Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit the program request on ACORN will result in that student's application not being considered. Admission to the Major will be assessed through a consideration of academic performance.

Students must complete 8.0 credits in Public Law as follows:

### 1. Foundations in Public Law (2.5 credits):

[POLB30H3](#) Law, Justice and Rights

[POLB56H3](#) Critical Issues in Canadian Politics

[POLB57H3](#) The Canadian Constitution and the Charter of Rights and Freedoms

[SOCB59H3](#) Sociology of Law

[POLC32H3](#) The Canadian Judicial System

### 2. Methods (1.5 credits):

[SOCB05H3](#) Logic of Social Inquiry

[POLC35H3](#) Law and Politics: Contradictions, Approaches and Controversies

and

0.5 credit in Quantitative/statistical methods from the following

[[SOCB35H3](#) Numeracy and Society

or [STAB23H3](#) Introduction to Statistics for the Social Sciences or [POLB40H3](#) Quantitative Reasoning for Political Science and Public Policy

### 3. Applications in Public Law (3.0 credits from the following):

[POLC30H3](#) Law, Politics, and Technology

[POLC33H3](#) Politics of International Human Rights

[POLC34H3](#) The Politics of Crime

[POLC36H3](#) Law and Public Policy  
[POLC38H3](#) International Law  
[POLC39H3](#) Comparative Law and Politics  
[POLC52H3](#) Indigenous Nations and the Canadian State  
[POLC56H3](#) Indigenous Politics and Law  
[POLC59H3](#) Sources of Power: The Crown Parliament and the People  
[POLD54H3](#) Michi-Saagiig Nishnaabeg Nation Governance and Politics  
[SOCC50H3](#) Deviance and Normality I  
[SOCC11H3](#) Policing and Security  
[SOCC30H3](#) Criminal Behaviour  
[SOCC46H3](#) Special Topics in the Sociology of Law  
[SOCC61H3](#) The Sociology of the Truth and Reconciliation Commission

**4. Advanced Applications in Public Law (1.0 credit from the following):**

[POLD30H3](#) Legal Reasoning  
[POLD38H3](#) Law and Global Business  
[POLD42H3](#) Advanced Topics in Public Law  
[POLD44H3](#) Comparative Law and Social Change  
[POLD45H3](#) Constitutionalism  
[POLD46H3](#) Public Law and the Canadian Immigration System  
[POLD31H3](#) Mooting Seminar  
[SOC005H3](#) Advanced Seminar in Criminology and Sociology of Law

In meeting the applications and advanced applications requirements, students can apply to count up to 1.0 credit from other appropriate courses, including at the UTSC, UTM and St. George campuses, if approved by the Public Law program administrator.

## Calendar Section: [Public Law](#)

# MAJOR PROGRAM IN PUBLIC POLICY (ARTS) - SCMAJPUBP

The Major Program in Public Policy equips students with the analytical and methodological skills they will need to secure employment as policy analysts in government, business, and non-governmental sectors, or to continue to graduate training in public policy.

The Program is cross-disciplinary. Public policy analysis is the exercise of applying the theoretical frameworks and positivist and interpretive methodologies of the social sciences and humanities to understand the development, implementation, and evaluation of public policy. It requires the ability to think clearly and critically, to design and execute research projects, to analyze both quantitative and qualitative data, and to write clearly. It also requires an understanding of the context, institutions, and processes of policy-making and implementation, as well as concepts and criteria for policy evaluation.

### Program Requirements

Students must complete a total of 8.0 credits as follows:

**1. 1.0 credit at the A- or B-level in Anthropology, City Studies, Geography, International Development Studies, Political Science, or Sociology**

Note: at least 0.5 credit at the A-level in Political Science is recommended. We also recommend interested students take introductory courses in disciplines like City Studies, Economics for Management Studies, Environmental Science, Health Studies, International Development Studies, and Sociology that may reflect their particular substantive interests.

**2. Economics for Public Policy (1.0 credit):**

[[MGEA01H3](#) and [MGEA05H3](#)] or [[MGEA02H3](#) and [MGEA06H3](#)]

**3. Canadian Politics (1.0 credit)**

[POLB56H3](#) Canadian Politics and Government  
[POLB57H3](#) The Canadian Constitution and Charter of Rights

**4. Fundamentals of Public Policy (1.0 credit)**

[PPGB66H3](#)/(PPGC66H3) Public Policy Making  
[PPGC67H3](#) Public Policy in Canada

**5. Statistics 0.5 credit from:**



[MGE111H3](#) Quantitative Methods in Economics I  
[STAB22H3](#) Statistics I  
[STAB23H3](#) Introduction to Statistics for the Social Sciences  
[STAB57H3](#) An Introduction to Statistics

**6. Methods 0.5 credits from:**

[POLB40H3](#) Quantitative Reasoning for Political Science and Public Policy  
[GGRA30H3](#) Geographic Information Systems (GIS) and Empirical Reasoning  
[PPGB11H3](#) Policy Communications with Data  
[POLC11H3](#) Applied Statistics for Politics and Public Policy  
[POLC78H3](#) Political Analysis I

**7. Applications of Public Policy (3.0 credits in Public Policy courses,\* from the following list or other courses with the approval of the supervisor of studies; of these, 2.0 credits must be at the C- or D-level and an additional 0.5 credits at the D-level).**

*Urban Public Policy*

[CITB04H3](#) City Politics  
[CITC03H3](#) Housing Policy and Planning  
[CITC04H3](#) Current Municipal and Planning Policy and Practice in Toronto  
[CITC07H3](#) Urban Social Policy  
[CITC12H3](#) City Structures, Problems, and Decisions: Field Research in Urban Policy Making  
[CITC15H3](#) Money Matters: How Municipal Finance Shapes the City  
[CITC16H3](#) Planning and Governing the Metropolis  
[CITC18H3](#) Urban Transportation Policy Analysis

*Health Policy*

[HLTB40H3](#) Health Policy and Health Systems  
[HLTC42H3](#) Emerging Health Issues and Policy Needs  
[HLTC43H3](#) Politics of Canadian Health Policy  
[HLTC44H3](#) Comparative Health Policy Systems  
[IDSB04H3](#) Introduction to International/Global Health  
[MGEC34H3](#) Economics of Health Care

*Environmental Policy*

[EESC13H3](#) Environmental Impact and Assessment Auditing  
[EESC34H3](#) Sustainability in Practice  
[EESD13H3](#) Environmental Law, Policy and Ethics  
[ESTB04H3](#) Addressing the Climate Crisis  
[ESTC36H3](#) Knowledge, Ethics and Environmental Decision-Making  
[ESTD19H3](#) Risk  
[POLC53H3](#) Canadian Environmental Policy  
[POLD89H3](#) Global Environmental Politics

*Public Administration*

[MGE131H3](#) Public Decision Making  
[MGE132H3](#) Economic Aspects of Public Policy  
[MGEC31H3](#) Economics of the Public Sector: Taxation  
[MGEC32H3](#) Economics of the Public Sector: Expenditures  
[MGEC37H3](#) Law and Economics  
[MGEC38H3](#) The Economics of Canadian Public Policy  
[MGEC54H3](#) Economics of Training and Education  
[MGEC91H3](#) Economics and Government  
[MGSC03H3](#) Public Management  
[MGSC05H3](#) The Changing World of Business-Government Relations

*Politics and Public Policy*

[POLC12H3](#) Global Public Policy and the Sustainable Development Goals (SDGs)  
[POLC13H3](#) Program Evaluation  
[POLC36H3](#) Law and Public Policy  
[POLC54H3](#) Intergovernmental Relations in Canada  
[POLC57H3](#) Intergovernmental Relations and Public Policy  
[POLC65H3](#) Political Strategy  
[POLC69H3](#) Political Economy: International and Comparative Perspectives  
[POLC83H3](#) Applications of American Foreign Policy  
[POLC87H3](#) Great Power Politics  
[POLC93H3](#) Public Policies in the United States  
[POLC98H3](#) International Political Economy of Finance  
[POLD50H3](#) Political Interests, Political Identity, and Public Policy



[POLD52H3](#) Immigration and Canadian Political Development  
[POLD67H3](#) The Limits of Rationality  
[POLD87H3](#) Rational Choice and International Cooperation  
[POLD90H3/IDSD90H3](#) Public Policy and Human Development in the Global South  
[PPGD64H3](#) Comparative Public Policy  
[PPGD68H3](#) Capstone: The Policy Process in Theory and Practice

\* Many of these courses have prerequisites that are not requirements in the Major Program in Public Policy, please plan accordingly. In addition, we recommend taking methods courses from within your disciplinary Major program.

## Calendar Section: [Public Policy](#)

# MAJOR PROGRAM IN SOCIO-CULTURAL ANTHROPOLOGY (ARTS) - SCMAJ1780

The Major program in Socio-Cultural Anthropology provides a course structure for those students desiring to expand upon or supplement other areas of academic interest by taking advantage of Anthropology's unique global, chronological, and biological perspective on the human condition.

### Program Requirements

The Program requires completion of 8.0 credits in Anthropology including:

#### 1. 1.0 credit as follows:

[ANTA01H3](#) Introduction to Anthropology: Becoming Human  
[ANTA02H3](#) Introduction to Anthropology: Society, Culture and Language

#### 2. [ANTB19H3](#) Ethnography and the Comparative Study of Human Societies

#### 3. [ANTB20H3](#) Ethnography of the Global Contemporary

#### 4. 6.0 credits at the B-level or above, of which at least 3.0 credits must be at the C- or D-level. Students must ensure that as part of Requirement 4, they complete:

- At least 1.0 credits in area studies courses [ANTB05H3](#), [ANTB16H3](#), [ANTB18H3](#), [ANTB26H3](#)/([ANTC89H3](#)), [ANTB42H3](#)/([ANTC12H3](#)), [ANTB65H3](#), or [ANTD07H3](#)
- 0.5 credit from Ethnographic methods: [ANTC70H3](#)
- At least 0.5 credit from among [ANTD05H3](#), [ANTD06H3](#), [ANTD15H3](#)

**Note:** [ANTB19H3](#) and [ANTB20H3](#) are prerequisites for C- and D-level courses in the Socio-Cultural Anthropology program.

## Calendar Section: [Anthropology](#)

# MAJOR PROGRAM IN SOCIOLOGY (ARTS) - SCMAJ1013

### Enrolment Requirements

Enrolment in the Major program is limited. Students will normally apply to enter the program after completing 4.0 or 5.0 credits including [SOCA05H3](#). Decisions are made on program admissions only twice a year, in May and in August, and are based on student requests submitted to the Office of the Registrar through ACORN. Admission will require a final grade of 65% or higher in [SOCA05H3](#) (or a final grade of 65% or higher in [SOCA03Y3](#), or a CGPA of 65% or higher in [SOCA01H3](#) and [SOCA02H3](#)). For students applying after completing 8.0 to 10.0 credits, admission will be on the basis of SOC courses completed, or on overall CGPA for those students who have not completed any SOC courses.

### Program Requirements

The Program requires completion of 7.0 credits in Sociology including:

#### 1. 0.5 credit from one of the following:

[SOCA05H3](#) The Sociological Imagination

(SOCA01H3) Introduction to Sociology I  
(SOCA02H3) Introduction to Sociology II  
(SOCA03Y3) Introduction to Sociology

2. [SOCA06H3](#) Sociology in the World: Careers and Applications
3. [SOCB05H3](#) Logic of Social Inquiry
4. [SOCB35H3](#) Numeracy and Society
5. [SOCB42H3](#) Theory I: Discovering the Social
6. [SOCB43H3](#) Theory II: Big Ideas in Sociology
7. 0.5 credit in SOC courses at the C-level that has been designated as an Applied Writing Skills course
8. 3.5 additional credits in SOC courses, of which at least 1.5 credits must be at the C- or D-level

## Calendar Section: [Sociology](#)

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