



ONLINE SUMMER 2020

BIOLOGY 1A03 CELLULAR AND MOLECULAR BIOLOGY

PROFESSOR

Dr. Lovaye Kajiura

McMaster University, Department of Biology

(not available on campus during the Summer 2020 term)

E-mail: kajiura@mcmaster.ca

Virtual office hours: to be posted on the Avenue online learning platform.

COURSE / LABORATORY COORDINATOR

Dr. Sajeni Mahalingam

McMaster University, Department of Biology

(not available on campus during the Summer 2020 term)

E-mail: bio1a03@mcmaster.ca

COURSE DESCRIPTION

Structure, molecular composition, and function in sub-cellular and cellular systems.

Prerequisites

Grade 12 Biology U or Biology 1P03 and registration in any Level 1 program in the Faculty of Science or any program above Level 1; or any program above Level 1; or registration in Arts & Science I, Medical Radiation Sciences I, Chemical Engineering and Bioengineering, Electrical and Biomedical Engineering. Not open to students with credit or registration in ISCI 1A24.

Corequisites

WHMIS 1A00, BIOSAFE 1BS0 if not already completed. Both corequisites must be completed prior to the first lab. Students enrolled in Biology 1A03 must also register in WHMIS 1A00 and BIOSAFE 1BS0.

All Biology 1A03 students must have completed the WHMIS 1A00 & BIOSAFE 1BS0 Safety Workshops to participate in the 1A03 labs. These safety courses are being offered on Avenue. For information regarding the Safety Workshops, refer to their listings posted on Avenue or visit the Environmental & Occupational Health Support Services website ehss@mcmaster.ca

BIOLOGY 1A03 COURSE GOALS & OBJECTIVES

The Biology 1A03 course is designed for students who intend to specialize in Science programs and is required for many upper level courses in the Faculty of Science. Upon completion of Biology 1A03, students will be able to:

1. Effectively discuss the fundamental concepts and underlying processes related to cellular and molecular biology.
2. Design and test laboratory experiments necessary for biological sciences.
3. Work independently and in collaboration with others to compile, analyze, interpret, and present scientific data using oral, written, and online formats.

The primary goal of the course is to prepare students academically for subsequent, specialized Biology courses and to ensure that students acquire skills essential for upper-level biology courses and biology-related fields of study.

IMPORTANT

ACADEMIC PROPERTY STATEMENT

NO part of the BIOLOGY 1A03 online lectures, lecture notes, online discussions, course-related information or resources may be reproduced, in any form or by any means, without permission in writing by the Biology 1A03 professor, Dr. Lovaye Kajiura.

NO photos, visual media, voice recordings, Powerpoint slides, MP3 media or lecture-related information may be reproduced or communicated by any means. Usage of cameras or video / camera-capable cellphones, smartphones or digital wireless media are not permitted to be used during online lectures.

Students who have access to authorized recorded lectures in a course may use these recordings only for personal study and should not reproduce, share or upload the recording to any publicly accessible web environment. Similarly, notes, slides, evaluations and tests are for personal use only and must not be shared with others outside of the Biology 1A03 course.

BIOLOGY 1A03 LECTURE CONTENT

Refer to the 2020 Spring/Summer Session Undergraduate Course Timetable.

Biology 1A03 is taught in an online format, meaning that you will learn the course content at your own pace and on your own time through online visually rich web modules and instructional podcasts. The online modules will be released weekly. The instructional podcasts will also include online review lectures and applied lectures. Online review lectures will give you the opportunity to clarify concepts that you may have found challenging. Online applied lectures will be used to explore applied contexts with examples from innovative research and data analytics. Online review and applied lecture podcasts will be available weekly on Wednesdays (up to 3 hours in duration). Given the current situation, the online lectures will be presented asynchronously (pre-recorded) to provide greater flexibility in learning for students living in different time zones and those students with varied work schedules.

The Biology 1A03 review and applied lectures will be a synthesis of several sources of information. Please note that students are expected to study all lecture materials. Students will benefit the most by including their own detailed written or typed notes into the provided Biology 1A03 lecture resources and slides posted with the online lecture podcasts.

Date	BIOLOGY 1A03 Themes
WEEK 1 June 24th	Welcome to BIO 1A03 Orientation & Introduction Lecture
WEEK 2 July 1st	Theme 1 The Structure of the Cell
WEEK 3 July 8th	Theme 2 From Gene to Protein
WEEK 4 July 15th	TEST #1 and Theme 3 Responding to the Environment
WEEK 5 July 22nd	Theme 4 DNA Replication & Mitosis
WEEK 6 July 29th	Theme 5 The Principles of Inheritance
WEEK 7 August 5th	TEST #2

BIOLOGY 1A03 LABS

Labs are scheduled on Wednesdays from 1:00 pm - 3:00 pm and 3:00 pm – 5:00 pm. Please check your Mosaic schedule for your lab section and scheduled lab time.

Biology 1A03 labs will be completed at home. The lab manual will be posted on Avenue. You will complete the labs live online with your TA and students who are enrolled in your lab section. Some of the labs are virtual labs, but there are two hands on labs (Labs 2 and 3) that will be completed with materials that will be provided to you in an at-home lab kit that will be mailed to your summer mailing address. The hands-on labs can only be completed with your TAs supervision online. Labs will also include pre-lab quizzes, online instructional videos, and sample data sets that will be used during the completion of the post-lab reports. One of the laboratory exercises will require the completion of a formal lab report. All pre-lab quizzes, post-lab reports, and the formal lab report will be completed individually and submitted electronically via Avenue to Learn.

The BIO1A03 labs provide students with the opportunity to develop and practice their applied and hands-on lab skills through a unique and personalized question. This project-based lab will have students work on a single question over the span of the semester. Over the course of the semester, students will conduct experiments that allow them to develop the following skills:

- Obtain an introduction to microscopy and image analysis
- Create biological drawings of cells with appropriate labels and scale
- Understand pipetting and dilutions (with accompanying calculations)
- Determine concentrations using spectrophotometry or colourimetric analysis
- Understand a research question and create their own hypotheses based on the research question
- Understand the process of research ethics and approval
- Understanding DNA extractions and PCR reactions
- Determining size of DNA fragments and make inferences of DNA copy number
- Create graphs for data and carry out statistical analyses

Week of	Lab # and Topic
June 22	Read – “The Lab Components in Biology 1A03”. Complete WHMIS 1A00 and BIOSAFE 1BS0. Lab 1 – Skills Lab: Micropipette, Microscope and Standard Curve
June 29	Canada Day – no labs
July 6	Lab 2A – Lab Introduction, Research Ethics, Evolution of Human Amylase Paper and unboxing of lab kit Lab 2B – <i>In vitro</i> Cheek cell staining with Foldscope kit
July 13	Lab 3A – Amylase Assay and Determination of “unknown” Amylase Concentration using kit Lab 3B – Creating an Amylase Standard Curve
July 20	Lab 4 – Exploring DNA Extraction, Polymerase Chain Reaction and Gel Electrophoresis
July 27	Lab 5 – Evaluating Gene Duplication and Data Analysis

All Biology 1A03 students must have completed the WHMIS 1A00 & BIOSAFE 1BS0 Safety Workshops to participate in the BIO1A03 at-home labs. **All students are required to provide proof of completion of WHMIS 1A00 and BIOSAFE 1BS0 which must be uploaded to Avenue to Learn prior to opening your Biology 1A03 laboratory kit and prior to the first hands-on lab.** Prior to participating in the at-home labs, students will also be asked to complete and sign an assumption of risks form.

We are only able to ship at-home lab kits to mailing addresses within Canada. If you do not have a Canadian mailing address for the kit to be shipped to, please contact us at bio1a03@mcmaster.ca by June 4 to discuss alternative options for the course.

EXEMPTION FROM THE LAB COMPONENT

Students with previous lab credit in Biology 1A03 may apply for an exemption from the lab component in Biology 1A03. Note that exemptions are NOT automatic. Forms to apply for the exemption are available from the Course Coordinator, Dr. Mahalingam. Forms must be submitted to Dr. Mahalingam by Monday, June 29.

If the exemption is not approved, students must complete ALL the Summer 2020 Biology 1A03 lab requirements.

REQUIRED BIOLOGY 1A03 TEXTBOOK

BIOLOGY HOW LIFE WORKS, 3rd Edition, by Morris, Hartl, Knoll, Lue, & Michael.

BIOLOGY HOW LIFE WORKS, 3rd Edition can be purchased online from the McMaster **Campus Store** (<https://campusstore.mcmaster.ca/>) via one of the following purchase options:

Electronic purchase option

Launchpad and the **BIOLOGY HOW LIFE WORKS, 3rd Edition** textbook

This purchase option includes electronic access to Launchpad and the **BIOLOGY HOW LIFE WORKS, 3rd Edition** textbook. Instructions for Launchpad registration are posted on Avenue to Learn. The **BIOLOGY HOW LIFE WORKS, 3rd Edition** textbook is contained within Launchpad. You cannot purchase electronic access to Launchpad and **BIOLOGY HOW LIFE WORKS, 3rd Edition** separately.

Softcover textbook purchase option (limited quantity, check <https://campusstore.mcmaster.ca/>)

This purchase option includes a softcover copy of the **BIOLOGY HOW LIFE WORKS, 3rd Edition** textbook, **chapters 1 – 24 only, and electronic access to Launchpad**. Electronic access to Launchpad contains electronic access to the entire **BIOLOGY HOW LIFE WORKS, 3rd Edition** textbook (chapters 1 – 48).

Free shipping of this purchase option is available from The Campus Store. Enter promo code **TEXTFREESHIP** to obtain **free shipping**.

ASSIGNED TEXTBOOK READING LIST

Refer to the Biology 1A03 AVENUE course website for the softcover textbook and e-book reading lists. Refer to the reading list that matches the textbook option that you have purchased.

BIOLOGY 1A03 HOW LIFE WORKS ONLINE LAUNCHPAD

The **BIOLOGY HOW LIFE WORKS** publishers have created an interactive website called LaunchPad. LaunchPad contains interactive videos, practice questions, external links, and many other additional resources.

LaunchPad also contains a copy of the textbook in electronic form (eBook). LaunchPad and the eBook will be used to facilitate learning.

BIOLOGY 1A03 LABORATORY MANUAL

Students will be provided with a downloadable copy of the Summer 2020 Biology 1A03 Laboratory Manual on Avenue to Learn. This manual will include lab learning objectives, lab instructions and Safety Data Sheets for all reagents used in the course labs. Separate Word Documents will be provided to all students to facilitate completion of the informal lab reports and assignments.

ADDITIONAL REQUIRED LAB SUPPLIES

At home lab kits as sent to your mailing address will include a lab coat, goggles, and gloves. Students will need to use tape to label their tubes, or a permanent marker. Students will need to ensure they have access to a reliable internet connection during live lab sessions with their TA.

AVENUE TO LEARN ONLINE LEARNING PLATFORM

Note: In this course, we will be using Avenue to Learn for some assessments. Students should be aware that when they access electronic components of this course, private information such as first and last names, usernames for the McMaster email accounts, and program affiliation may become apparent to all other students in the same course. The available information is dependent on the technology used. Continuation in this course will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure, please discuss this with the Course Coordinator.

HOW TO LOG INTO THE BIOLOGY 1A03 AVENUE SITE

1. Start your web browser and go to: <http://avenue.mcmaster.ca>

2. USER ID:

Type in the first part (in lower case letters) of your McMaster MUSS e-mail address (Your MAC ID).

For example: if your McMaster e-mail address is janedoe@muss.cis.mcmaster.ca,
then your Avenue User ID is janedoe.

3. PASSWORD: Type in your McMaster Modem / Printing / CIS Lab Access /Proxy Services password.

4. Then click on the Login button.

You will need Adobe Acrobat Reader (this is freeware) to read the Biology 1A03 *pdf* files.

Most computers have Adobe Acrobat Reader installed as standard software.

If your computer does not have it, you may download it from the Adobe website:

<http://www.adobe.com/products/acrobat/readstep2.html>

Note: In this course, we will be using Avenue for some assessments. Students should be aware that when they access the electronic components of this course, private information, including first and last names, usernames for the McMaster University e-mail accounts, and program affiliations may become apparent to others participating in the course. Continuation in this course will be deemed as consent to this disclosure. If you have any questions or concerns about such disclosure, please discuss them with the professors and course coordinator of this course.

GRADING Final Biology 1A03 grades will be determined using the following grading scheme:

ITEM	GRADING SCHEME
PRE-LAB QUIZZES Throughout the term (6 quizzes x 1% each)	6%
INFORMAL LABS Throughout the term (7 informal reports x 1 % each)	7%
FORMAL LAB REPORT To be announced during the term (1 report)	12 %
TEST #1 – ONLINE VIA AVENUE TO LEARN WEDNESDAY, JULY 15TH, 9:00 AM Coverage - Theme 1 and Theme 2 Modules, Review Lectures, Applied Lectures, and Supplementary Information. Format - 30 multiple choice questions worth 30 marks & 15 marks worth of written answer questions Duration - 90 minutes	30%
TEST #2 – ONLINE VIA AVENUE TO LEARN WEDNESDAY, AUGUST 5TH, 9:00 AM Test #2 will evaluate content from Coverage - Theme 3, Theme 4, Theme 5 Modules, Review Lectures, Applied Lectures, and Supplementary Information-. Format - 40 multiple choice questions & 20 marks worth of written answer questions Duration - 2 hours	45%
MAKE-UP TEST - ONLINE VIA AVENUE TO LEARN WEDNESDAY, AUGUST 5TH, 12:00 PM. A make-up test will be written by students who missed a Test 1 and obtained an approved MSAF following the test absence. The course content coverage and format of the make-up test will be the same as Test #1 on Wednesday, July 15 th .	

Final marks for the course are based on a total assessment of each student's record. It is a student's responsibility to make sure that his/her marks are complete and correct. Grade adjustment techniques may be used. However, marks will NOT be bell-curved at any point in the term. The Professor and Course Coordinator reserve the right to change or revise information contained in this course outline. The professor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, students will be given reasonable notice with an explanation and an opportunity to comment on changes. It is the responsibility of the student to check their McMaster email and course websites daily during the term and to note any changes. Marks will be calculated according to the above grading scheme to be consistent with previous years. The Biology Department does not approve of altering marks arbitrarily at a student's request.

BIOLOGY 1A03 TEST 1 & TEST 2

The online Biology 1A03 Test 1 will be composed of 30 multiple choice questions (worth 30 marks) and 15 marks worth of written answer questions and will be 90 minutes in duration.

The online Biology 1A03 Test 2 will be composed of 40 multiple choice questions and 20 marks worth of written answer questions and will be 2 hours in duration.

Tests may include multiple choice, figures, graphs, and written factual, conceptual, and application style questions.

This course may use proctoring software (to be determined) during tests/exams. This software may require you to turn on your video camera, present identification, monitor and record your computer activities, and lockdown your browser during the exam. This software may be required to be installed before the exam begins. If you have questions about whether this software will be used, or concerns about the use of this software, please contact your Course Coordinator – Dr.Sajeni Mahalingam.

BIOLOGY 1A03 POLICIES

1. The last day for enrollment and course changes during the Summer 2020 academic term is **Monday, June 29, 2020**.
2. It is the requirement that students complete at least 75% of the course work to obtain credit for Biology 1A03, including lab-related exercises, tests, and assignments. All students must write both Test 1 and Test 2.
3. In order for a student to pass the course, students must pass the lab component of the course. It is also a requirement of Biology 1A03 that students complete the majority of the lab exercises.

Because this course has a compulsory lab component, it is the responsibility of the university to ensure that students have the appropriate academic and laboratory skills necessary to succeed in upper year biology courses. If a student does not complete the majority of the lab component, the university reserves the right to withhold a student's grade until they have completed the required labs during a future semester. This policy applies even if the student has notes from their Associate Dean of Studies office excusing him or her from the missed labs, tests, or assignments.

A lab exercise that is not submitted will result in a grade of zero unless the missed student work is supported by a MSF or the student's Associate Dean's (Studies) office. Documentation of the reason for the incomplete lab exercise will be required by the Associate Dean's office. It may be possible to submit a late lab assignment. Contact the Course Coordinator, Dr. Sajeni Mahalingam through email, bio1a03@mcmaster.ca to do so.

Biology 1A03 requires the submission of one formal lab report during the term. If a student misses any one of the lab exercises, please email Dr. Sajeni Mahalingam for further directions as the student will still be required to write the formal lab report at the end of the term.

If a student is not able to complete one of the labs the student must complete the following two steps in order to prevent a zero being assigned to the missed lab assignment grade.

Step 1 - The student will need to complete a MSF (<http://mcmaster.ca/msf/>) for the missed work.

Step 2 - Contact the Course Coordinator, Dr. Sajeni Mahalingam to ensure that MSF confirmation email was received.

4. Students will be submitting their post-lab reports and their formal lab report to electronic dropboxes that will be available within the Biology 1A03 AVENUE course site. Late submissions will be penalised 10% per day.
5. All tests, lab reports, and assignments should be completed and submitted individually unless other instructions to work in groups are specifically defined. All reports and assignments which are submitted should be unique. It is considered academic dishonesty to submit work that was not originally yours or that has been previously submitted. All cases of academic dishonesty will be dealt with through the office of Academic Integrity at McMaster University.
6. Sometimes a student may encounter a technical difficulty with the quizzes. Some of the common issues are outlined (with solutions to them) in the Biology 1A03 Lab Information Document that is found on Avenue to Learn. If a student needs help with other problems, the Course Coordinator can likely help, but only if the student contacts the Course Coordinator before the quiz deadline. If the Course Coordinator does not know about the student's technical difficulty until after the due date has passed, there is nothing that the Course Coordinator can do to help the student. The student will only be able to inform the Course Coordinator of technical difficulties during her online office hours (which do not include evenings or weekends), so please plan to complete the quizzes well in advance of the due dates.
7. Any marked term work (labs, tests, etc.) may be submitted for re-grading within 5 business days of the work being returned to the student. A regrade request can be accomplished by emailing the Course Coordinator- Dr. Sajeni Mahalingam, and must be accompanied by a completed re-grade request form, which is available on the Biology 1A03 Avenue site. The reason for the regrade request must be completely justified on the form. Regrade requests made for frivolous reasons will be denied. Regrade forms and course work should be submitted to the Course Coordinator via email.
8. Any term mark corrections must be made BEFORE the Biology 1A03 Test 2 is written. Contact the Course Coordinator regarding tests/assignments grades corrections. There are not alternative

assignments that can be completed by students for the purpose of increasing their final grade.

9. The professor, Course Coordinator, and university reserve the right to modify elements of the course during the term. The university may change dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check their McMaster e-mail and course websites regularly (at least once per day) during the term and take note of updates or changes.

10. Requests for Relief for Missed Academic Term Work

For absences from classes lasting up to three calendar days:

Using the McMaster student absence form (MSAF) on-line, self-reporting tool, undergraduate students may report absences lasting up to three calendar days and may also request relief for missed academic work. The submission of medical or other types of supporting documentation is normally not required. Students may use this tool to submit a maximum of one request for relief of missed academic work per term. Students must immediately follow up with their course instructors regarding the nature of the relief. Failure to do so may negate the opportunity for relief. It is the prerogative of the instructor of the course to determine the appropriate relief for missed term work in his/her course.

For absences from classes lasting more than three calendar days:

Students who are absent more than three days cannot use the on-line, self-reporting tool to request relief. They **MUST** contact their Faculty Office to discuss their situation and may be required to provide appropriate supporting documentation. If warranted, students will be approved to use a discretionary version of the MSAF on-line, self-reporting tool.

For the reporting of more than one request per term:

Students who wish to submit more than one request for relief of missed academic work per term cannot use the on-line, self-reporting tool to request relief. They **MUST** contact their Faculty Office to discuss their situation and may be required to provide supporting documentation. If warranted, students will be approved to use a discretionary version of the MSAF on-line, self-reporting tool.

For absences from classes lasting more than three calendar days or for the reporting of more than one request for relief per term:

If the reason was medical, the approved McMaster University Medical Form covering the relevant dates must be submitted. The student must be seen by a doctor at the earliest possible date, normally on or before the date of the missed work and the doctor must verify the duration of the illness. Relief will not be considered for minor illnesses. If the reason is non-medical, appropriate documentation with verifiable origin covering the relevant dates must be submitted, normally within five working days. In some circumstances, students may be advised to submit a Petition for Special Consideration (Form A) seeking relief for missed academic work. In deciding whether or not to grant a petition, adequacy of the supporting documentation, including the timing in relation to the due date of the missed work and the degree of the student's incapacitation, may be taken into account. If the petition is approved the Faculty Office will notify the instructor(s) recommending relief. The student must contact the instructor promptly to discuss the appropriate relief. Failure to do so may negate the opportunity for relief. It is the prerogative of the instructor of the course to determine the appropriate relief for missed term work in his/her course.

The MSAF on-line, self-reporting tool cannot be used to apply for relief from any course work that is valued at greater than 25% of the final grade, or any final examination or its equivalent. See *Petitions for Special Consideration* in this section of the Calendar. Students should expect to have academic commitments Monday through Saturday, but not on Sunday or statutory holidays.

Students who require accommodations to meet a religious obligation or to celebrate an important religious holiday should make their requests within three weeks of the start of term to the Course Coordinator.

There will be no discretionary approvals given by the Coordinator or the Professor.

BIOLOGY 1A03 MSAF POLICY

Course component not completed (MSAF submitted)	Result
Lab quiz (each worth 1 % of final grade)	1% added to the value of the formal lab report, now 13% of final grade.
Informal lab report (each worth 1% of final grade)	1% added to the value of formal lab report, now 13% of final grade.
Formal lab report (worth 12 % of final grade)	48 hour extension of deadline. The value of the formal lab report will not be added to the value of another course component.
MSAF submitted for Test 1 (30% of final grade)	Students that miss test #1 for a valid reason and obtained an approved MSAF from the Office of the Associate Dean will complete an online make-up test on Wednesday, August 5. The course content coverage and format of the online make-up test will be the same as Test #1 on Wednesday, July 15 th .

As a student enrolled in this course you have been granted permission to access an online learning management system, Avenue to Learn. Avenue to Learn course pages are considered an extension of the classroom and usage is provided as a privilege subject to the same code of conduct expected in a lecture hall (see relevant section of the student code of conduct below). This privilege allows participation in course discussion forums and access to supplementary course materials. Please be advised that all areas of Avenue to Learn, including discussion forums, are owned and operated by McMaster University.

Any content or communications deemed inappropriate by the course instructor or coordinator may be removed at their discretion. Per the University Technology Services Code of Conduct, all members of the McMaster community are obligated to use computing resources in ways that are responsible, ethical and professional. Avenue to Learn Terms of Use are available at <http://avenue.mcmaster.ca>.

Student Code of Conduct - Appendix D

Major Offences include, but are not limited to: (h) engaging in disruptive behaviour. Disruptive behaviour is behaviour in class or out of class which involves substantial disorder and/or disrupts the operation of the University and (j) engaging in verbal or non-verbal behaviour or communication toward an individual or group which is considered to be intimidating, harassing and/or discriminatory.

ONLINE COURSE BEHAVIOUR

McMaster is committed to an inclusive and respectful community. These principles and expectations extend to online activities including electronic chat groups, video calls and other learning platforms. If you are concerned about your virtual classroom experiences, the Equity and Inclusion Office (EIO) is available to advise and assist students who may be experiencing any equity, accessibility, inclusion, harassment, discrimination or sexual violence concerns.

You can reach the EIO at equity@mcmaster.ca. The Biology 1A03 Team thanks you in advance for joining us in ensuring that our McMaster online communities are spaces where no one feels excluded and everyone is able to enjoy learning together
<https://equity.mcmaster.ca/contact-us>

ACADEMIC INTEGRITY

Students are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials students earn are rooted in principles of honesty and academic integrity. Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behaviour can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension or expulsion from the university.

The students are responsible to understand what constitutes academic dishonesty. For information on the various types of academic dishonesty, please refer to the *Academic Integrity Policy*, located at www.mcmaster.ca/academicintegrity.

The following illustrates only three forms of academic dishonesty:

- Plagiarism, e.g. the submission of work that is not one's own or for which other credit has been obtained
- Improper collaboration in group work
- Copying or using unauthorized aids in tests and examinations

Any student who infringes one of these resolutions will be treated according to published policy.

To deter acts of academic dishonesty in Biology 1A03, there will be multiple versions of tests & final exams.

In addition, marked student course work will be randomly scanned and photocopied.

By submitting this work, a student certifies that the work represents solely her/his own independent efforts. The students confirm that they are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. The student confirms that is her/his responsibility to understand what constitutes academic dishonesty under the Academic Integrity Policy."

<https://secretariat.mcmaster.ca/app/uploads/Academic-Integrity-Policy-1-1.pdf>

AUTHENTICITY / PLAGIARISM DETECTION

Students who do not wish to submit their work through A2L and/or Turnitin.com must still submit an electronic and/or hardcopy to the instructor. No penalty will be assigned to a student who does not submit work to Turnitin.com or Avenue to Learn. All submitted work is subject to normal verification that standards of academic integrity has been upheld (e.g. on-line search, other software, etc.). To see the Turnitin.com Policy, please go to www.mcmaster.ca/academicintegrity.

ACADEMIC ACCOMMODATION OF STUDENTS WITH DISABILITIES

Students who require academic accommodation must contact Student Accessibility Services (SAS) to make arrangements with a Program Coordinator. Academic accommodations must be arranged for each term of study. Student Accessibility Services can be contacted by phone 905-525-9140 ext. 28652 or e-mail sas@mcmaster.ca. For further information, consult McMaster University's Policy for Academic Accommodation of Students with Disabilities. <http://www.mcmaster.ca/policy/Students-AcademicStudies/AcademicAccommodation-StudentsWithDisabilities.pdf>

Students who are registered with SAS should meet with the Course Coordinator in order to discuss their academic accommodations.

ACADEMIC ACCOMODATION FOR RELIGIOUS, INDIGENOUS, OR SPIRITUAL OBSERVANCES

(RISO) Students requiring academic accommodation based on religious, indigenous or spiritual observances should follow the procedures set out in the RISO policy. Students requiring a RISO accommodation should submit their request to their Faculty Office normally within 10 working days of the beginning of term in which they anticipate a need for accommodation or to the Registrar's Office prior to their examinations. Students should also contact their instructors as soon as possible to make alternative arrangements for classes, assignments, and tests.

McMASTER UNIVERSITY GRADING SCHEME

Grades obtained for Biology 1A03 will be converted according to the following scheme, which is the one in general use at McMaster University.

90 - 100%	A	+	12
85 - 89%	A		11
80 - 84%	A-		10
77 - 79%	B+		9
73 - 76%	B		8
70 - 72%	B-		7
67 - 69%	C+		6
63 - 66%	C		5
60 - 62%	C-		4
57 - 59%	D+		3
53 - 56%	D		2
50 - 52%	D-		1
0 - 49%	F		0

THE BIOLOGY ACHIEVEMENT AWARD

The Department of Biology recognizes the importance of superior undergraduate academic performance in Biology 1A03 among our students. Biology Academic Achievement Awards are conferred to Science I students, who obtain the highest standings in Biology 1A03. No applications are necessary as the awards are based solely on course grades.

STUDY SKILLS

The academic transition from high school to university is often very challenging for many students. For students who wish to improve their academic skills, study habits, time management, or for students who require specialized services [learning challenged students and ESL (English as a second language students)], assistance is available at both the Student Success Centre located in Gilmour Hall 110 <https://studentsuccess.mcmaster.ca/> and the Student Accessibility Services located the lower level (basement) of the McMaster University Student Centre B107 <https://sas.mcmaster.ca/>

MISSED TEST POLICY

Students who miss Test #1 for a valid reason and obtained an approved MSAF from the Office of the Associate Dean will complete an online make-up test on Wednesday, August 5th.

Students who miss Test #2 for a valid reason may apply to the Office of their Associate Dean of their respective faculty for permission to write a deferred make-up test during the October Deferred Final Examination period. The student must submit a completed McMaster University Medical Certificate and submit a completed Request for Deferred Examination (Form B) to the Office of the Associate Dean of their respective faculty within one week of Test #2.

Students that missed Test #1 for a valid reason and obtained an approved MSAF from the Office of the Associate Dean and then missed test #2 and make-up test #1 on Wednesday, August 5th, may apply to the Office of their Associate Dean of their respective faculty for permission to write deferred make-up tests during the October Deferred Final Examination period. The student must submit a completed McMaster University Medical Certificate and submit a completed Request for Deferred Examination (Form B) to the Office of the Associate Dean of their respective faculty within one week of test #2.

EXTREME CIRCUMSTANCES

The University reserves the right to change the dates and deadlines for any or all courses in extreme circumstances (e.g. severe weather, labour disruptions, etc.). Changes will be communicated through regular McMaster communication channels, such as McMaster Daily News, Avenue and/or McMaster email.

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