

BIOLOGY 1A03

CELLULAR AND MOLECULAR BIOLOGY

WINTER 2021 COURSE OUTLINE

<u>PROFESSORS</u>		<u>COURSE/LAB COORDINATOR</u>	<u>LECTURE TA</u>
Dr. Lovaye Kajiura Department of Biology Biology Life Sci Building Office 426 kajiura@mcmaster.ca	Dr. Rosa da Silva Department of Biology Life Sci Building Office 540 rosa.dasilva@mcmaster.ca	Dr. Mahalingam Department of Biology Burke Sci Building Room 201A Office B bio1a03@mcmaster.ca	TBD Department of Burke Sci Bldg Room 201A Office D Discussion forum

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. Students are strongly encouraged not to take Biology 1A03 and Biology 1M03 in the same term.

Corequisites

All Biology 1A03 students must have completed the WHMIS 1A00 & BIOSAFE 1BS0 Safety Courses prior to the first lab in order to participate in the 1A03 labs. Students are required to bring screenshot printouts that confirm completion of WHMIS 1A00 & BIOSAFE 1BS0 which are to be signed by their TA on their first day of lab.

This safety course will be found on Avenue after successful registration via MOSAIC. For information regarding the Safety Workshops, refer to their listings posted on Avenue or contact the Environmental & Occupational Health Support Services at ehss@mcmaster.ca.

Course Learning 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. Implement laboratory technical skills necessary for biological sciences.
3. Work independently and in collaboration with others to compile, analyze, interpret, and present scientific data using oral, written, and internet 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.

Course Topics

Biology 1A03 is taught in a blended format, meaning that you will learn some of the course content at your own pace and on your own time through online visually rich web modules. Face-to-face time in interactive lectures is used to explore applied contexts with research and data analytics, and review lectures give you the opportunity to clarify concepts that you may have found challenging.

BIOLOGY 1A03 Themes
Welcome to BIO 1A03 Orientation & Introduction Lecture
Theme 1 The Structure of the Cell
Theme 2 From Gene to Protein
Theme 3 Responding to the Environment
Theme 4 DNA Replication & Mitosis
Theme 5 The Principles of Inheritance

ACADEMIC PROPERTY STATEMENT No part of the Biology 1A03 lectures, in-lecture discussions, course information or tutorial resources may be reproduced, in any form or by any means, without permission in writing by professors Dr. Lovaye Kajiura and Dr. Rosa da Silva and course coordinator Dr. Sajeni Mahalingam. No visual media, voice recordings, PowerPoint slides, pdfs, MP3 media, or lecture-related information may be reproduced or communicated by any means. Usage of cameras or video/ camera capable cell phones, smartphones, or digital media are not permitted to be used during lectures. Copying Biology 1A03 lecture or laboratory materials for distribution (e.g. uploading materials to a commercial website) is prohibited.

Biology 1A03 Labs

Refer to 2021 Winter Session Undergraduate Course Timetable. In person labs will be **every other week (3 hours each week), with 1 hour of virtual labs during the alternate week.**

Biology 1A03 in person labs will be held in the Burke Science Building (BSB) in laboratories 213, 214, 217, and 218.

Please refer to the Biology 1A03 Lab Manual that is available for purchase at The Campus Store, and the course calendar that is posted on the Biology 1A03 Avenue site. The virtual labs will be live on Microsoft Teams. Please note that virtual labs will also be recorded and released if needed.

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
- Understand and perform DNA extractions and PCR reactions
- Determine size of DNA fragments and make inferences of DNA copy number
- Create graphs for data and carry out statistical analyses

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. Forms must be submitted to the Course Coordinator Dr. Sajeni Mahalingam by January 15th, 2021. If the exemption is not approved, students must complete ALL of the Biology 1A03 labs.

BIOLOGY 1A03 LABORATORY MANUAL/LABORATORY NOTEBOOK

The [Biology 1A03 laboratory manual and laboratory notebook](#) are available for purchase from The Campus Store (McMaster's Main Bookstore).

ADDITIONAL REQUIRED LAB SUPPLIES

A lab coat, goggles (or protective eyewear), pens, pencils, erasers, paper, clear ruler, and the McMaster approved Science calculator are available for purchase at [The Campus Store](#) (McMaster's Main Bookstore).

Course Materials

BIOLOGY 1A03 TEXTBOOK

BIOLOGY HOW LIFE WORKS, 3rd Edition, Volume 1: Cells, Genetics, and Evolution by James Morris, Daniel Hartl, Andrew Knoll, and Robert Lue. Chapters 1 – 24.

Assigned Reading Refer to the Biology 1A03 AVENUE course website for the assigned reading list.

LaunchPad The **BIOLOGY HOW LIFE WORKS** publishers have created an interactive website called LaunchPad, that contains interactive videos, practice questions, external links, and many other additional resources. LaunchPad also contains a copy of the textbook in electronic form (eBook). The eBook contains chapters electronically that are present in the reading list, but not present in the soft cover volume 1 textbook. LaunchPad and the eBook will be used to facilitate learning.

AVENUE TO LEARN

Note: In this course, we will be using an online Learning Management System, 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, Dr. Sajeni Mahalingam.

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@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](#) (download freeware [HERE](#)) to read the Biology 1A03 *pdf* files. Most computers have Adobe Acrobat Reader installed as standard software.

HOW TO USE MICROSOFT TEAMS

Instructions regarding how to use Microsoft Teams and support are found on the McMaster University Technology Services website, here is the link: <https://office365.mcmaster.ca/office-365/applications/ms-teams/>.

Course Evaluation

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

Item	Weight
LAB QUIZZES Throughout the term (6 quizzes x 1% each)	6%
INFORMAL POST-LAB ASSIGNMENTS Throughout the term (7 reports x 1% each)	7%
FORMAL LAB REPORT Due date to be announced (1 report, completed and submitted individually)	12%
TEST 1 , date, time, locations to be announced, 7:00 PM Test 1 will evaluate content from Theme 1 (Modules 1-4) and first ½ of Theme 2 (Modules 1-2), Applied Lectures and Supplementary Information. Test is 90 minutes in duration.	25%
TEST 2 , date, time, locations to be announced, 7:00 PM Test 2 will evaluate content from the second ½ of Theme 2 (Modules 3-4) and entire Theme 3 (Modules 1-4), Applied Lectures and Supplementary Information. Test is 90 minutes in duration.	25%
TEST 3 ,date,time, locations to be announced, 7:00 PM Test 3 will evaluate content from Theme 4 (Modules 1-4) and Theme 5 (Modules 1-4), Applied Lectures and Supplementary Information. Test is 90 minutes in duration.	25%
MAKE-UP TEST, April 12th, 2021, time and locations to be announced The make-up test will be written by students who have missed a test and obtained an approved MSAF following the test absence. The content of the make-up test will be specific to the test that was missed, and the same format as the test that was missed.	

***A detailed schedule with exact test dates and due dates will be uploaded to the Avenue to Learn course page closer to the start of the term.**

Biology 1A03 tests may include multiple choice, figures, graphs, and written factual, conceptual, and application style questions. Each test will be composed of 30 multiple choice questions, and 10 marks of short answer questions.

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 course may use online proctoring software for the tests. This software may require students to turn on their video camera, present identification, monitor and record their computer activities, and/or lock/restrict their browser or other applications/software during the tests. This software may be required to be installed before the tests begin.

The Professors 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 weekly during the term and to note any changes. Marks will be calculated according to the above grading scheme in order to be consistent with previous years. The Biology Department does not approve of altering marks arbitrarily at a student's request.

Course Policies

1. It is the responsibility of the student to attend the lecture and lab sections to which he or she has been assigned. If a lab or a lecture is missed, students are responsible for the covered material. Permanent changes from the assigned sections may be made online through MOSAIC by Thursday, January 14th. After this time, no further section changes are possible.

2. It is an expectation that students complete at least 75% of the course work to obtain credit for Biology 1A03, including labs, tests, and assignments. All students must write all three tests. Any student who misses one or more term test will be required to write make-up test(s) on date, time, and locations to be determined.

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 term. 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.

It is the responsibility of the student to attend all in person and virtual labs as scheduled.

A missed lab will result in a grade of zero unless the student's absence is supported by a McMaster Student Absence Form (MSAF) or the student's Associate Dean's Office. Documentation of the reason for the absence will be required by the Associate Dean's office. It may be possible to reschedule a missed lab. See the Coordinator to do so.

Biology 1A03 requires the submission of one formal lab report during the term. If a student misses any one of the labs, please see the Coordinator 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 attend one of the labs (Lab 1, Lab 2, Lab 3, Lab 4, or Lab 5 in addition to the virtual labs), he/she must complete the following two steps in order to prevent a zero being assigned to his/her lab report grade.

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

Step 2 - Contact the Course Coordinator to ensure that MSAF confirmation email was received.

The value of his/her missed lab will be added on the value of his/her Final Lab Report unless the student can complete the lab at an alternate time.

In addition to the Biology Statement on Academic Dishonesty, it is the policy of Biology 1A03 that all data collected in the laboratory be handed in with the lab report when applicable. Furthermore, data must be written in ink and signed by the Lab Teaching Assistants. A mark of zero will be assigned if the data are not attached when applicable.

A laboratory notebook will be kept as a complete record of a student's activities in the Biology 1A03 labs, for students to use when compiling data that will be included in the formal lab report. A lab coat and goggles are required for admission to the in person labs in Biology 1A03. Without a lab coat and goggles, students will not be allowed to enter the lab room.

4. By using the Drop Box system in place for Biology 1A03, the student takes full responsibility to ensure that the assignment or lab be submitted to the correct dropbox on Avenue by the deadline, If an assignment or lab is late or submitted to the wrong box, a 10% per day penalty will accrue until the assignment or lab is located.

5. If a student knows in advance that a regularly scheduled test will be missed (for a legitimate reason), the student may be given permission to write during the alternate test time. Alternate test times will occur on the same day as the regular test. Any student that needs to write during the alternate test time due to a course conflict, religious, medical, or personal reason should contact the Course Coordinator (Dr. Mahalingam) via e-mail (bio1a03@mcmaster.ca).

6. Only use of a McMaster University approved calculator (*Casio fx-991MS* or *Casio fx-991MS Plus*) is allowed during evaluations (tests). Written answers must be completed in blue or black ink pen. Use of correction fluid or correction tape is not permitted on tests or exams.

7. 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.

8. Sometimes a student may encounter a technical difficulty with the lab quizzes that are available for one week prior to their respective deadlines. Some of the common issues are outlined (with solutions to them) in the Biology 1A03 Lab Information Document that is found in the Lab Manual. If a student needs help with other

problems, the Coordinator can likely help, but only if the student comes to see the Coordinator in person in BSB 201A before his/her quiz deadline. If the Coordinator does not know about the student's technical difficulty until after the due date has passed, there is nothing that the Coordinator can do to help the student. The student will only be able to inform the Coordinator of technical difficulties during their office hours (which do not include evenings or weekends), so please plan to complete the quizzes well in advance of the due dates.

9. 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. The work must be accompanied by a re-grade request form printed from the Biology 1A03 Avenue site and 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 e-mailed to the course coordinator (Dr. Mahalingam).

10. Any term mark corrections on Avenue to Learn must be made BEFORE the Biology 1A03 make-up test time on April 12th, 2021. Contact the Course Coordinator via e-mail (bio1a03@mcmaster.ca) regarding tests/assignments grades corrections. There are no alternative assignments that can be completed by students for the purpose of increasing their final grade.

11. The professors, 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 email and course websites regularly (at least once per day) during the term and take note of updates or changes.

12. Requests for Relief for Missed Academic Term Work

The MSAF on-line, self-reporting tool cannot be used to apply for relief from any course work that is equal or 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.

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** report to the Office of Associate Dean of their respective Faculty 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** report to the Office of Associate Dean of their respective Faculty 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 to the Office of Associate Dean of their respective Faculty. 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 Office of Associate Dean of student's respective Faculty will notify the instructor(s) recommending relief. The student must contact the Course Coordinator promptly to discuss the appropriate relief. Failure to do so may negate the opportunity for relief. It is the prerogative of the instructional team of the course to determine the appropriate relief for missed term work in his/her course.

BIOLOGY 1A03 MSAF POLICY

Course component not completed (MSAF submitted)	Result
Lab quiz (1% of final grade)	1% added to the value of the formal lab report, now 13% of final grade.
Post-lab assignment (1% of final grade)	1% added to the value of the formal lab report, now 13% of final grade.
Formal lab report (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 approved for a missed test (25% of final grade)	A make-up test will be written during the final exam period on Date,time and location to be determined.
No MSAF approved for a missed test (25% of final grade)	No make-up test (0% recorded as test grade)

13. As a student enrolled in this course you have been granted permission to access an online learning management systems, Avenue to Learn, Microsoft Teams, and Zoom online platforms. These online platforms 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 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 instructors or coordinator may be removed at his/her 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>.

Academic Integrity

You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity. **It is your responsibility to understand what constitutes academic dishonesty.**

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. For information on the various

types of academic dishonesty please refer to the [Academic Integrity Policy](https://secretariat.mcmaster.ca/university-policies-procedures-guidelines/), located at <https://secretariat.mcmaster.ca/university-policies-procedures-guidelines/>

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.

Authenticity/Plagiarism Detection

Some courses may use a web-based service (Turnitin.com) to reveal authenticity and ownership of student submitted work. For courses using such software, students will be expected to submit their work electronically either directly to Turnitin.com or via an online learning platform (e.g. Avenue to Learn, etc.) using plagiarism detection (a service supported by Turnitin.com) so it can be checked for academic dishonesty.

Students who do not wish their work to be submitted through the plagiarism detection software must inform the Instructor before the assignment is due. No penalty will be assigned to a student who does not submit work to the plagiarism detection software. **All submitted work is subject to normal verification that standards of academic integrity have been upheld** (e.g., on-line search, other software, etc.). For more details about McMaster's use of Turnitin.com please go to www.mcmaster.ca/academicintegrity.

Courses with an On-line Element

Some courses may use on-line elements (e.g. e-mail, Avenue to Learn, Microsoft Teams, LearnLink, web pages, capa, Moodle, Echo360, Microsoft Teams, ThinkingCap, etc.). Students should be aware that, when they access the electronic components of a course using these elements, private information such as first and last names, user names for the McMaster e-mail 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 a course that uses on-line elements will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure please discuss this with the course instructor.

Online Proctoring

Some courses may use online proctoring software for tests and exams. This software may require students to turn on their video camera, present identification, monitor and record their computer activities, and/or lock/restrict their browser or other applications/software during tests or exams. This software may be required to be installed before the test/exam begins. No proctoring software will be used in this Biology 1A03 course.

Conduct Expectations

As a McMaster student, you have the right to experience, and the responsibility to demonstrate, respectful and dignified interactions within all of our living, learning and working communities. These expectations are described in the [Code of Student Rights & Responsibilities](#) (the “Code”). All students share the responsibility of maintaining a positive environment for the academic and personal growth of all McMaster community members, **whether in person or online**.

It is essential that students be mindful of their interactions online, as the Code remains in effect in virtual learning environments. The Code applies to any interactions that adversely affect, disrupt, or interfere with reasonable participation in University activities. Student disruptions or behaviours that interfere with university functions on online platforms (e.g. use of Avenue 2 Learn, WebEx, Echo360, Microsoft Teams, or Zoom for delivery), will be taken very seriously and will be investigated. Outcomes may include restriction or removal of the involved students’ access to these platforms.

Major Offences include, but are not limited to: 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 engaging in verbal or non-verbal behaviour or communication toward an individual or group which is considered to be intimidating, harassing and/or discriminatory.

Academic Accommodation of Students with Disabilities

Students with disabilities who require academic accommodation must contact [Student Accessibility Services](#) (SAS) at 905-525-9140 ext. 28652 or sas@mcmaster.ca to make arrangements with a Program Coordinator. For further information, consult McMaster University’s [Academic Accommodation of Students with Disabilities](#) policy.

Requests for Relief for Missed Academic Term Work

McMaster Student Absence Form (MSAF): In the event of an absence for medical or other reasons, students should review and follow the Academic Regulation in the Undergraduate Calendar “Requests for Relief for Missed Academic Term Work”.

View the [McMaster Student Absence Form \(MSAF\)](#) for more information.

Academic Accommodation 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 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.

Copyright and Recording

Students are advised that lectures, demonstrations, performances, and any other course material provided by an instructor include copyright protected works. The Copyright Act and copyright law protect every original literary, dramatic, musical and artistic work, **including lectures** by University instructors.

The recording of lectures, tutorials, or other methods of instruction may occur during a course. Recording may be done by either the instructor for the purpose of authorized distribution, or by a student for the purpose of personal study. Students should be aware that their voice and/or image may be recorded by others during the class. Please speak with the instructor if this is a concern for you.

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 to Learn and/or McMaster email.

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

Email Etiquette

When contacting university faculty and staff, always send your email from your McMaster University email account. If you use another email address, such as Gmail your email will not be responded to, because you cannot be positively identified as a student at McMaster University. When contacting the Biology 1A03 Instructional Team via email, always preface the subject of your email with Biology 1A03. Always begin your email with a salutation. For example, "Dear Dr. Mahalingam" and always end your email with your full name and your McMaster student number and your academic level (for example Level 1, 2, 3, 4, 5) and identify your academic program.

Academic Skills

There may be times during your university studies that can be challenging for undergraduate students. For many students. For students who wish to improve their academic skills, study habits, time management, or for students who require specialized services for learning challenged students and English as a second language ESL 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/>

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.

Deferred Make-Up Test

Students who miss a regularly scheduled test must obtain approval for an MSAF from the Office of the Associate Dean of their respective faculty. If the MSAF request is approved, students will write a make-up test on Monday April 12th, 2021. Students who are required to take the Biology 1A03 make-up test but miss it 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 February 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 the final examination period.

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