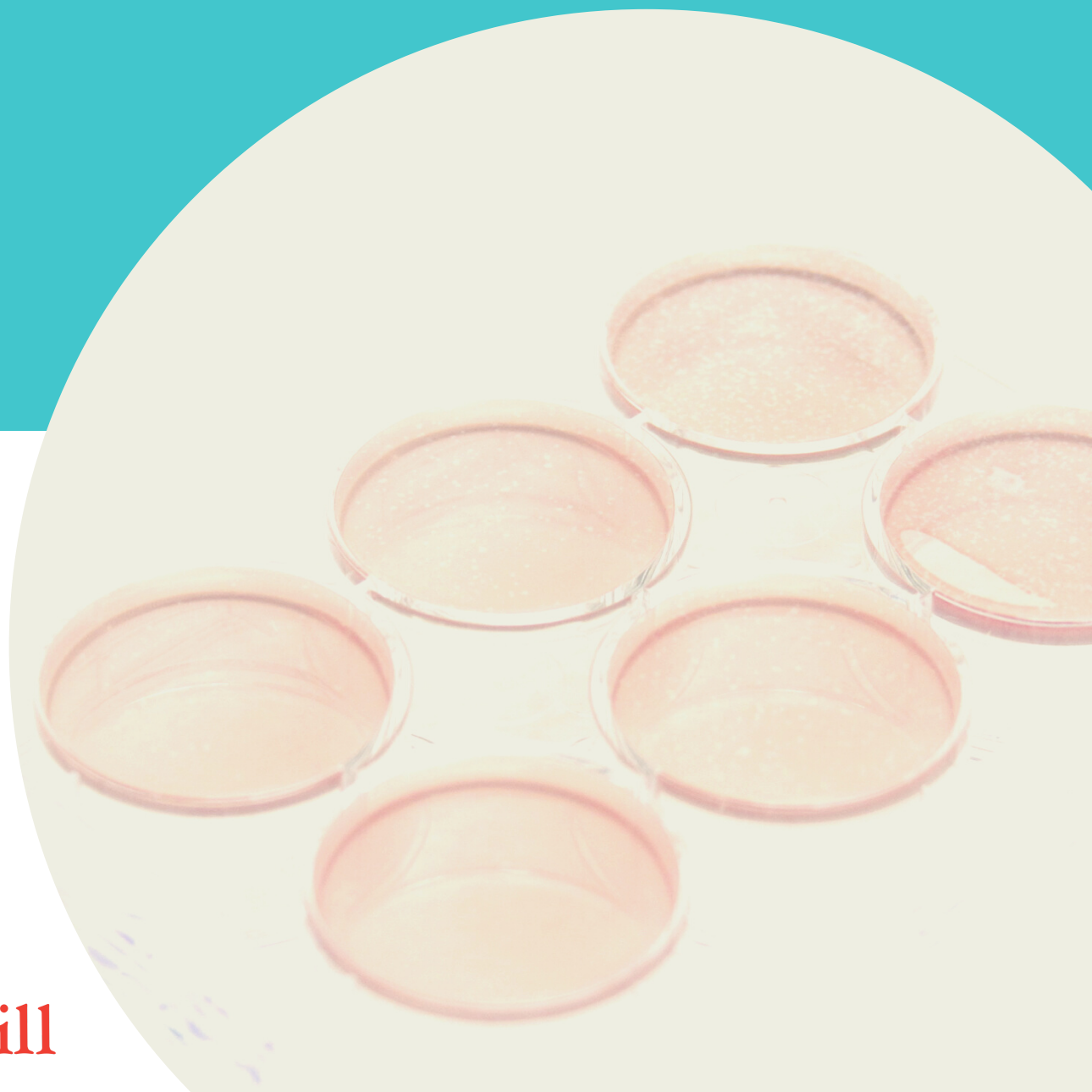


UNDERGRADUATE STUDENT HANDBOOK 2020-2021

DEPARTMENT OF
BIOENGINEERING



McGill

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PREAMBLE

It is the responsibility of the student to obtain accurate and up-to-date information. Although the University eCalendar is updated annually, it can take several months for changes to be reflected on the e-calendar website. Our goal is to keep this Student Handbook up-to-date. As such, if there are any discrepancies between this document and the eCalendar, please report them to the Student Affairs Administrator.

The active participation of students in the advising process is essential to access the full range of academic opportunities available at the university. Please be proactive in seeking meetings with various advisors, professors, and counsellors to ensure that you receive the advice needed to meet your academic goals. It should be noted that, while advisors are there to provide students with guidance, students are ultimately responsible for meeting the requirements of their degree. It is the student's responsibility to learn the rules and regulations of the University, Faculty, Department, and the program. Advisors and counsellors are available to work together with students to offer help, advice, and guidance throughout their undergraduate studies.

ACADEMIC INTEGRITY

McGill University values academic integrity. Therefore, all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures.

(see www.mcgill.ca/students/srr/honest/ for more information). (approved by Senate on 29 January 2003)

To ensure that all students are aware of and understand the expectations of academic integrity, all students must complete a mandatory Academic Integrity Tutorial by the end of their first semester at McGill.

The Academic Integrity Tutorial is available online on myCourses as course AAAA 100.

ACADEMIC ADVISORY PERSONNEL

Chair

Professor Dan Nicolau

chair.bioeng@mcgill.ca

Undergraduate Program Director

Professor Georgios Mitsis

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Student Affairs Administrator

Chloe Gomez

(514) 398-7254

studentaffairs.bioeng@mcgill.ca

Academic Advisory Personnel

McGill Engineering Student Centre (MESC)

(Advanced Credits Pre-Engineering, HSSA/Impact Courses,
Exchange Program, Internships)

Faculty Advisor for Bioengineering

Ms. Lesley Morin

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CURRICULUM AND STREAMS

The undergraduate curricula were designed to provide students with fundamental knowledge in natural sciences, engineering and mathematics as they relate to the field of bioengineering. It is highly recommended that students choose all courses in one of the following three stream*:

STREAM 1 – Biological Materials and Mechanics

STREAM 2 – Biomolecular and Cellular Engineering

STREAM 3 – Biological Information and Computation

*for the recommended course sequences of each stream, please visit:

www.mcgill.ca/bioengineering/studies/undergrad/curriculum

NON-TECHNICAL COMPLEMENTARY COURSES - IMPACT (GROUP A)

Any one of the 3-credit courses listed below:

ANTH 212 (3) Anthropology of Development
BTEC 502 (3) Biotechnology Ethics and Society
CIVE 469 (3) Infrastructure and Society
ECON 225 (3) Economics of the Environment
ECON 347 (3) Economics of Climate Change
ENVR 201 (3) Society, and Environment and Sustainability
GEOG 200 (3) Geographical Perspectives: World
Environmental Problems
GEOG 203 (3) Environmental Systems
GEOG 205 (3) Global Change: Past, Present and Future
GEOG 302 (3) Environmental Management 1
MGPO 440 (3) Strategies for Sustainability
MIME 308 (3) Social Impact of Technology
PHIL 343 (3) Biomedical Ethics
RELG 270 (3) Religious Ethics and the Environment
SOCI 235 (3) Technology and Society
SOCI 312 (3) Sociology of Work and Industry
URBP 201 (3) Planning the 21st Century City

NON-TECHNICAL COMPLEMENTARY COURSES - HSSA (GROUP B)

Any 3-credit course at the 200--level or higher in the following departments:

Anthropology (ANTH)
Economics (any 200 -300 level course, excluding ECON 227 & ECON 337)
History (HIST)
Philosophy (excluding PHIL 210, PHIL 310)
Political Science (POLI)
Psychology (excluding PSYC 204, PSYC 305, but including PSYC 100)
Religious Studies (RELG)
School of Social Work (SWRK)
Sociology (excluding SOCI 350)

OR

Select from the following list:

ARCH 528 (3) History of Housing
BUSA 465* (3) Technological Entrepreneurship
CLAS 203 (3) Greek Mythology
ENVR 203 (3) Knowledge, Ethics and Environment
ENVR 400 (3) Environmental Thought
FACC 220 (3) Law for Architects and Engineers
FACC 500 (3) Technology Business Plan Design
FACC 501 (3) Technology Business Plan Project
HISP 225 (3) Hispanic Civilization 1
HISP 226 (3) Hispanic Civilization 2
INDR 294** (3) Introduction to Labour-Management Relations
INTG 201*** (3) Integrated Management Essentials 1
INTG 202*** (3) Integrated Management Essentials 2
MATH 338 (3) History and Philosophy of Mathematics
MGCR 222** (3) Introduction to Organizational Behaviour
MGCR 352** (3) Marketing Management 1
ORGB 321** (3) Leadership
ORGB 423** (3) Human Resources Management

*Note: Students who entered the program in Fall 2017 (or later) are not permitted to take language courses to satisfy the Group B requirement.

**Note: Management courses have limited enrolment and registration dates. See important dates at www.mcgill.ca/importantdates.

***Note: INTG201 and INTG202 are not open to students who have taken certain Management courses.

ELECTIVE COURSES FOR CEGEP-ENTRY STUDENTS

Students from Quebec CEGEPs must take 9 credits of elective courses. These can be chosen from any course at the 200-level or higher offered by the University, subject to permission of the offering department.

Note: Students registered in BIEN 290 after fall 2019 may not register for ANAT 212, BIOC 212, BIOL 200, and BIOL 201.

SATISFACTORY/ UNSATISFACTORY ("S/U")

This S/U option is not permitted for required courses or technical complementary courses. It is only permitted for the Impact and HSSA complementary courses, as well as elective courses (CEGEP students). Students are permitted to use the "S/U" option once per term. The option must be selected in Minerva before the add/drop period.

ACADEMIC POLICIES

The following is a list of important policies of the Department of Bioengineering that are related to registration, graduation, as well as other academic rules and procedures. Violation of these rules can have significant consequences (including delay in graduation). It should be noted that being unfamiliar with these policies will not be accepted as an excuse should issues arise. Students are strongly advised to meet their Academic Advisor at the beginning of each academic year.

1. Pre-Requisites and Co-Requisites

The Department does not allow students to register for any core course without having completed the necessary pre-requisites. Co-requisites, if any, must also be satisfied. Accordingly, Engineering students must have obtained a grade of "C" or better in a course in order for it to satisfy the degree requirements. If a student has obtained a "D", "F", deferred grade (e.g., has missed the final exam and has an "L" or "LE" grade), then the student is considered to have NOT completed the course, and thus cannot take the next course in a pre-requisite sequence. Exceptions to this rule are sometimes made for elective courses only. Permission to override the pre-requisites for an elective course may be granted by the instructor of the elective course. Since students can register for courses in both Fall and Winter semesters at the same time, sometimes a student may fail a Fall semester course and still be registered in Winter for a course in which the pre-requisite is no longer met. In such cases, the student must drop any course that violates the pre-requisites.

2. Course Conflicts

Students are not permitted to register for courses with time conflicts. Although Minerva does not always flag the conflicts during registration, conflicts are not permitted. A conflict means that two courses have time conflicts either in the lecture times or tutorial times.

3. Path to Graduation

Students must meet the requirements of the degree. This means completing the required core courses and technical complementary courses with a grade of "C" or better, and completing all non-technical complementary courses with a grade of "D" or better. Only non-technical complementary and elective courses may be taken on a pass/fail basis (one per term Satisfactory/ Unsatisfactory Option).

4. Verifying Graduation

Students are responsible for making sure that they will graduate by taking the correct courses. As graduation approaches it is recommended that students take the following steps to ensure that they have met their degree requirements:

- a) Verify your progress by using the Minerva Degree Evaluation tool. Although this tool is not 100% accurate, it will allow you to get a sense of where you stand.
- b) To compensate for the drawbacks of the Degree Evaluation it is recommended that students print out their curriculum (according to STREAM) and manually cross out completed courses.
- c) If you are still unsure of whether you have completed your degree requirements after completing steps (a) and (b), contact the Student Affairs Administrator in the Department of Bioengineering or an Academic Advisor at the McGill Engineering Student Centre.

5. Courses with Laboratory Components

For courses that contain a laboratory component, the laboratory component is required, and must be completed.

Non-completion of a laboratory component could result in a "K" (incomplete) grade, even if the student would normally still pass the course in terms of grade percentage. The "K" grade will be removed once the student has completed the required lab components.

6. Taking Courses outside McGill University

All core courses must be completed at McGill University (the only exception is for students taking part in an official and authorized Exchange Program). For elective courses, permission is rarely granted to take courses outside the university, and then only under exceptional circumstances.

7. Taking Courses in Other Departments and Programs

Students are expected to concentrate their efforts on taking courses that will lead to their Bioengineering degree or to fulfill approved minors or areas of concentration. Students may register in other courses offered at McGill University provided that these courses are specified in Minerva as "extra" or "S/U" courses that will not count toward their TGPA or CGPA.

Students **MUST** code courses under the S/U OPTION at the time of registration on MINERVA. The Option will **NOT** be added or dropped manually to a student's record after the Drop/Add deadline. If you have chosen a course that is not permitted as Satisfactory/Unsatisfactory, the S/U option will be manually removed from your record by the McGill Engineering Student Center (MESC).

If you are taking a course solely for your own interest, you may code this course as "Extra". Fill out a Course Authorization Form, obtain the approval of an Academic Advisor, and submit to MESC. For additional details, please consult the following website:

www.mcgill.ca/engineering/students/courses-registration/courses-grades/extra-courses

8. Minors and Concentrations

There are various possibilities for specialization in different fields. For a list of approved minors, please consult the following website for details:

www.mcgill.ca/engineering/students/advising-programs/academic-program-curriculum/minor-programs

9. Upper Limit on Credits

The upper limit for credits in one semester is 18. Requests to exceed the credit limit must be sent to the Undergraduate Program Director of the Department. Note that permission is rarely granted to exceed 18 credits in any one semester.

10. Supplemental Exams

Courses administered by the Faculty of Engineering do not have supplemental examinations; however, Engineering students may be eligible to write a supplemental examination in courses administered by the Faculty of Arts & the Faculty of Science.

Students are responsible for verifying if a Supplemental is being offered and for applying online for a supplemental exam. For details, please consult the following website:

www.mcgill.ca/engineering/students/courses-registration/exams-assessment/supplementals

11. Exam Review

In accordance with the Charter of Student Rights, and subject to the conditions stated therein, students have the right to consult any written submission for which they have received a mark and the right to discuss this submission with the examiner, where administrative arrangements are reasonable. To consult Final Exams after the grades have been announced, please fill out the “Request to Review Final Exam” form (available at the Reception Desk in McConnell Engineering, Room 350) and submit to the Student Affairs Administrator. The Exam Review is only for the student to view the exam. No attempt will be made to re-judge whether a partial mark is fair or not.

12. Reassessment of a Grade and Reread

Students who believe they were graded unfairly on their final exam may request a formal reread of a final exam. The student must contact the McGill Engineering Student Center (MESC). Note that your grade may increase, decrease or stay the same. Details are available at the following website:

www.mcgill.ca/engineering/students/courses-registration/exams-assessment/reassessment-grade

EXCHANGE PROGRAMS AND INTERNSHIPS

Internships and Exchange Programs offer many benefits and a wealth of experience. However, careful planning is essential to avoid (or minimize) delays in graduation as a result of participating in an Exchange or internship. Consult the Associate Chair in the Department of Bioengineering and the advisors at the McGill Engineering Student Center (MESC) to create a plan. For Exchange Programs, begin by consulting the following website:

www.mcgill.ca/engineering/students/exchanges-study-away/outgoing

Please note that it can take a considerable amount of time (and multiple levels of approval) to select a university, and then register for courses. While selecting courses, it is important to account for course credits and contact hours. The latter are commonly calculated in terms of Accreditation Units (AUs). In many universities, courses satisfy the credit requirements but fall short of the equivalent number of AUs required at McGill University. Therefore, after returning from exchange, it may be necessary to take additional courses (usually in the form of Technical Complementary Courses) to make up for the shortfall in AUs.

If you have participated in an Exchange Program, then please make sure to check your transcript on Minerva for any additional course requirements. The requirements are typically listed under “Student Holds” (as “Eng Degree Requirement Warning”).