



WELCOME

Electrical, Computer and Software Engineers

Agenda

- Professor Warren Gross, Chair of Electrical & Computer Engineering
- Professor François Bouffard, Associate Chair (Undergraduate)
- Ms. Margaret Colton, Student Affairs Advisor, McGill Engineering Student Centre (MESCC)
- Ms. Debra Hamel and Lorraine Donald, Internship Advisors, Engineering Career Center
- Ms. Jill Boruff, Liaison Librarian, Schulich Library
- ECSESS executives
 - Ms. Catherine Grosdidier, President; Ms. Cara Zhang, VP External and Mr. Evan Laflamme, VP Academic

Our Commitment

■ McGill Engineering is committed to:

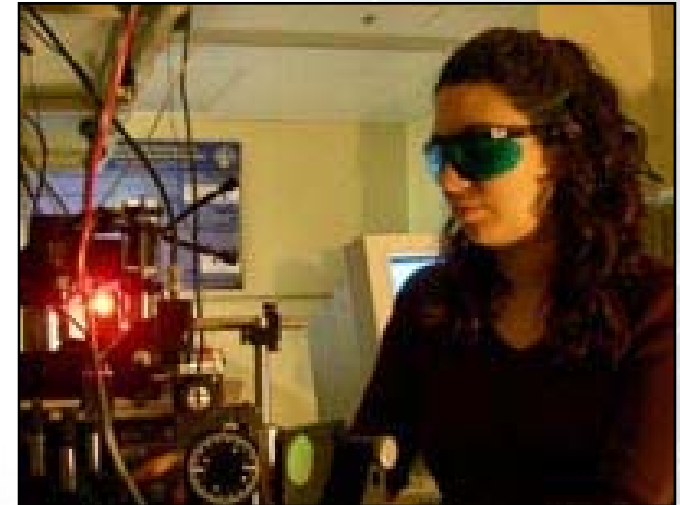
- Producing self-reliant engineers who will become the leaders of tomorrow
- Defining the path of future discovery in engineering and technological research
- Making innovative, socially responsible contributions to the engineering community and society at large

McGill ECE at a glance:

- 43 Professors
- 18 Support Staff
- 1200 Undergraduate Students
- 360 Graduate Students

Research areas

Computational electromagnetics
Intelligent systems
Integrated circuits and systems
Nano-electronic devices and materials



Photonic systems
Power engineering
Software engineering
Systems and control
Telecommunications

McGill University

Faculty of
Engineering

Department of Electrical and Computer
Engineering

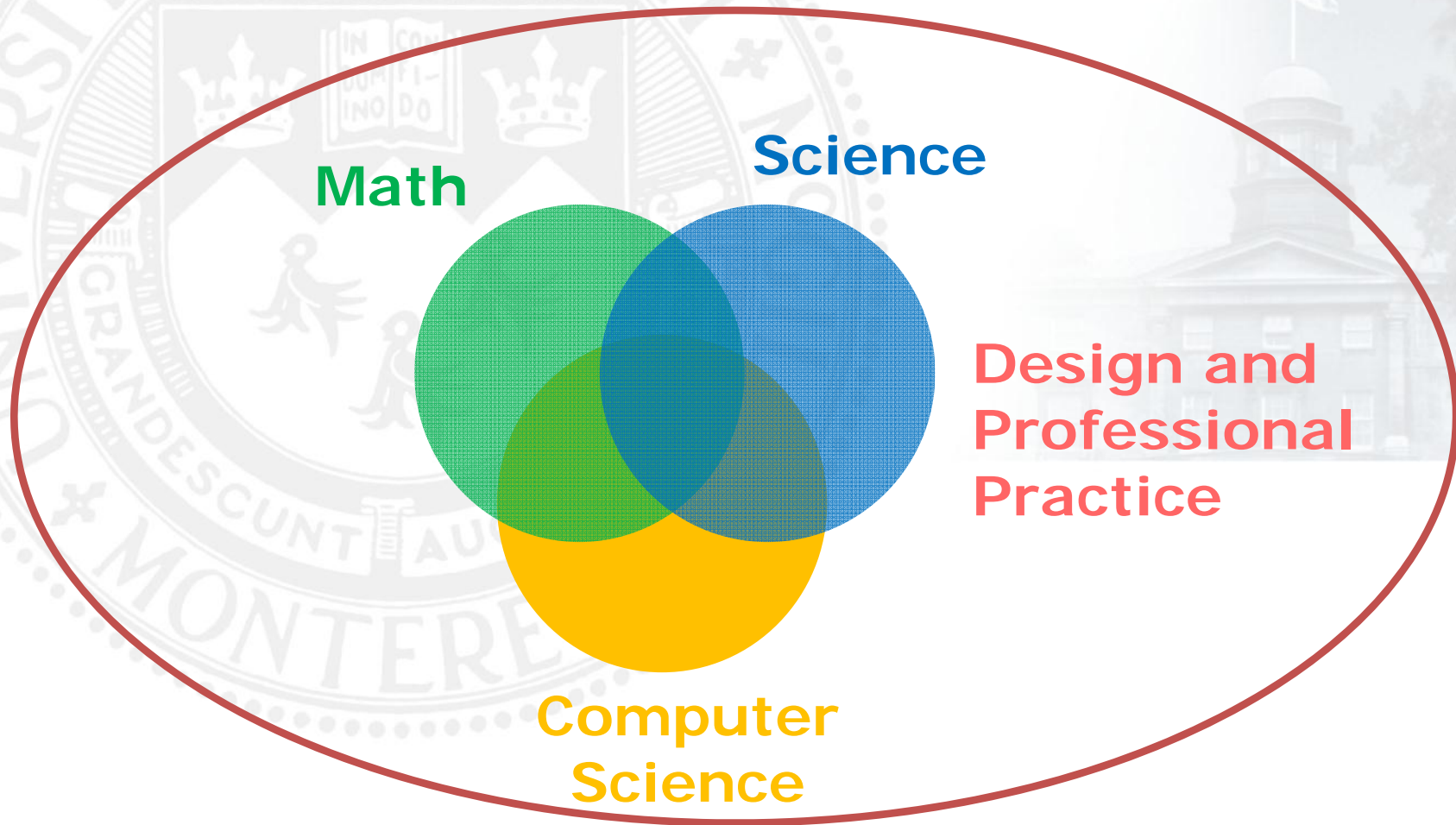
Electrical Engineering
Program

Computer Engineering
Program

Software Engineering
Program

Honours Electrical
Engineering

How is Engineering different from Science?



Our students



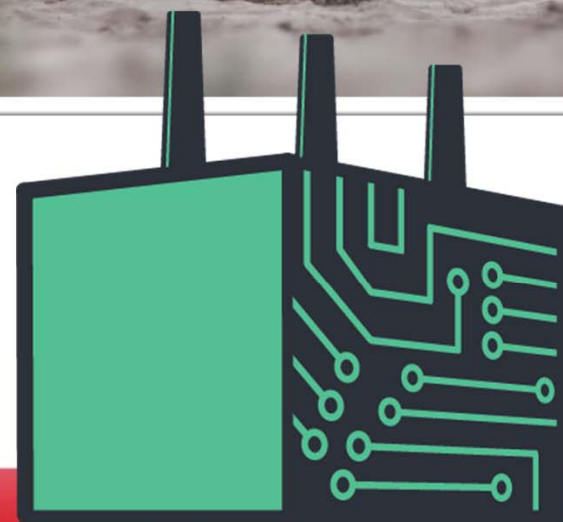
De-stress with
ECSESS!

Take a break with some -free- drinks and snacks



`code.jam()`

Artificial Intelligence



THE FACTORY

Structure of the Programs

Time



Pre-Engineering (U0)	
Required Math and Computer Science	Non-technical Courses and Natural Science Complementary Courses
Required Engineering	
Technical Complementary Courses	

Non-technical Courses

- Intro. to Engineering Profession
- Engineering Professional Practice
- Responsibilities of the Professional Engineer
- Communication in Engineering
- Engineering Economy
- “Impact of technology” (Group A) course
 - www.mcgill.ca/ece then: Programs and courses > Undergraduate > Complementary Studies
- “Humanities & social sciences” (Group B) course
 - www.mcgill.ca/ece then: Programs and courses > Undergraduate > Complementary Studies

Natural Science Complementary Courses

- Required in *some* of our programs.
- Chosen from a given list of courses offered by science departments, e.g.
 - Musical acoustics
 - Environmental geology
 - Intro. to ecology and evolution

Required Math & Computer Science

- Calculus, differential equations, linear algebra,...
- Introduction to computing, algorithms, databases,...

Required Engineering

The main blocks are:

- Circuits and electronics
- Signal processing
- Electromagnetics
- Computer hardware
- Computer software

There is also a *capstone design project*



Technical Complementary Courses

You choose courses that most interest you, from a given list. The list is different for each program.

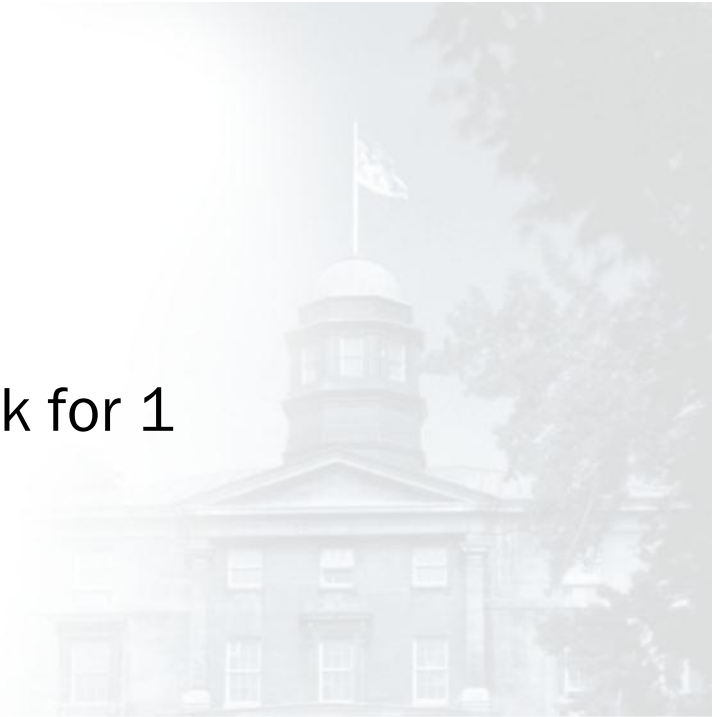


Accreditation

- All our programs have been accredited by the Canadian Engineering Accreditation Board (CEAB).
- This will make it straightforward for you to become registered as a Professional Engineer after graduation.
- The CEAB rules impose constraints. We can allow departures from the published programs only in exceptional circumstances.

Credits

- 1 credit = 3 hours work per week for 1 semester
- e.g. 4-credit course (3-4-5):
 - 3 lecture hours per week
 - 4 lab/tutorial hours per week
 - 5 homework/self-study hours per week
 - 12 hours per week total (4 x 3)



Workload

- Most courses are 3 credits, but they range from 1 credit to 4 credits.
- Normally take 14 to 18 credits per term (42 to 54 hours per week, for average student).
- Below 12 credits, you are considered part-time.
- We generally do not allow students to take more than 18 credits. To go over requires mitigating circumstances, e.g., upcoming graduation

Honours Electrical Engineering

- Targets students who are interested in having a more research-focused program.
- Entry is at start of 3rd semester (5th if you are doing UO).
- Entry is competitive, based on cumulative GPA up to that point.
- *To be considered, you must have completed a minimum of 14 credits in each semester.*
- Only about 25 students a year accepted.

Honours Electrical (continued)

- Different from regular Electrical as follows:
 - Honours Research Lab Rotation (4)
 - Honours Thesis instead of Design Project
 - Technical Complementaries chosen from a different list that includes graduate-level courses
 - Numerical methods course is at the graduate level
- Pick up the leaflet “Honours Program in Electrical Engineering” from TR 2060 or find it here:
www.mcgill.ca/ece then: Programs and courses > Undergraduate > Program Information > Honours Electrical Engineering Program

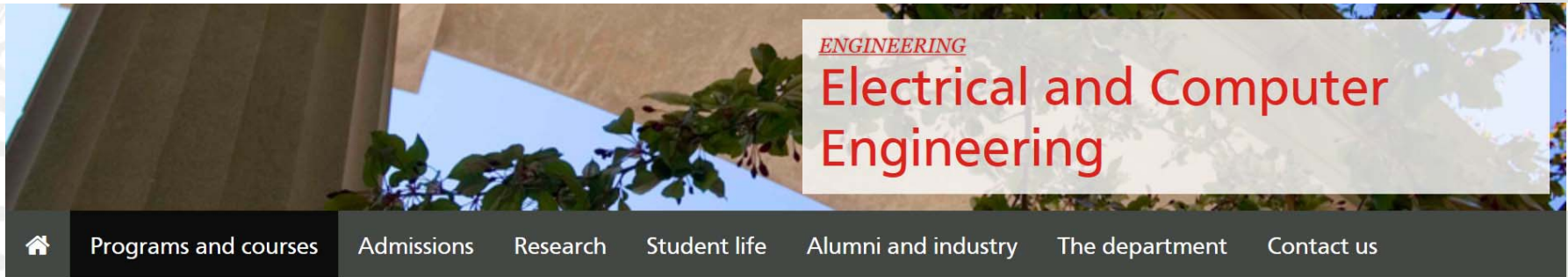
D and F Grades

- D grade are considered as a *failure* in core course, i.e., all courses, except in
 - Impact of Technology (Group A)
 - Humanities & Social Sciences (HSS, Group B)
 - Natural Science complementaries
- If you fail a course:
 - You should re-take it as soon as possible
 - If you fail with an F, you cannot take follow-on courses.
 - If you fail an ECSE course with a D, you may take an ECSE course that has it as a prerequisite, provided that the failed course is retaken at the same time. This is not an automatic process. Students must meet with an advisor first.

Information and Advice

- Department Website: www.mcgill.ca/ece
- Programs calendar: www.mcgill.ca/students/courses/calendars
- Undergraduate Program Office (TR2060):
 - 514-398-3943, undergrad.ece@mcgill.ca
 - Mrs. Prema Menon (Dept. Student Adviser)
 - Can make appointment to see a Departmental Student Adviser (Mrs. Menon or a professor)
- Engineering Student Centre (FDA 22):
 - e.g. U0 courses, Impact of Technology, HSS, MATH courses

www.mcgill.ca/ece/programs/undergrad



McGill.CA / ELECTRICAL AND COMPUTER ENGINEERING / Programs and courses

Undergraduate
General Information
Program Information
Complementary Studies
Minors
Curriculum Changes
ECE Labs
FAQs

Undergraduate studies



Welcome to the Undergraduate Studies portal on the Electrical and Computer Engineering website.

Here you will find all the information you need in order to obtain your degree in Electrical, Computer or Software Engineering.

If you can't find your answers here, please visit the [undergraduate FAQs](#) page.

Sample curricula

Frequently Asked Questions

Uniform Email Address (UEA)

- All McGill students have an email address:
firstname.lastname@mail.mcgill.ca
- *We will use this to communicate with you*
- Make sure you check it regularly
 - You can forward mail sent here to a different email address if you like; see

<https://search.mcgill.ca/nrb/>