# MINOR PROGRAMS

# Minor Programs in the Faculty of Engineering

This section includes general information concerning minors that are designed for students in the Faculty of Engineering.

Minors are coherent sequences of courses taken in addition to the courses required for the B.Eng., B.G.E, or B.Sc.(Arch.) degree. Minors normally consist of 18–24 credits, allowing 6–12 credits of overlap with the degree program (see individual minor program requirements for specific information regarding course overlap). The real credit cost to the student is typically 9–18 credits, representing one term beyond the degree program. All courses in a minor must be passed with a grade of C or better.

Engineering students choose from a considerable variety of complementary courses under the categories of technical and complementary studies. Students should refer to their department for information concerning selection of complementary courses and should see their departmental advisor. Departments also publish information regarding the choice of courses in this publication and in separate documents.

**Note:** Students are also permitted to register for minor concentrations offered by departments in the Faculty of Arts. To register in one of these minor concentrations, students must submit a request through the Minor Webform to obtain approval from the Faculty of Engineering. The Faculty of Engineering allows up to nine credits of overlap with the degree program for Engineering students taking Arts minor concentrations.

### **Available Programs**

For enrolment in any other minors available at the University, which is not listed below, please consult an advisor at MESC.

- Aerospace Engineering Minor (B.Eng.) (21 credits)
- Applied Artificial Intelligence Minor (B.Eng.) (25 credits)
- Arts Minor (B.Eng.) (24 credits)
- Biomedical Engineering Minor (B.Eng.) (21 credits)
- Biotechnology Minor (for Engineering Students) (B.Eng.) (24 credits)
- · Chemistry Minor (B.Eng.) (25 credits)
- Computer Science Minor (B.Eng.) (25 credits)
- Construction Engineering and Management Minor (B.Eng.) (24 credits)
- Economics Minor (B.Eng.) (18 credits)
- Environmental Engineering Minor (B.Eng.) (21 credits)
- Materials Engineering Minor (B.Eng.) (24 credits)
- Mathematics Minor (B.Eng.) (18 credits)
- Mining Engineering Minor (B.Eng.) (23 credits)
- Nanotechnology Minor (B.Eng.) (21 credits)
- Physics Minor (B.Eng.) (18 credits)
- Software Engineering Minor (B.Eng.) (18 credits)
- Technological Entrepreneurship Minor (B.Eng.) (18 credits)

## Computer Science Courses and Minor Program

The School of Computer Science offers an wide array of courses for Engineering students interested in computers. To earn a Computer Science Minor, Engineering students must complete 24 credits of courses with a grade of C or better.

Computer Science Courses in Engineering Programs

The School of Computer Science offers an extensive range of courses for students in the Faculty of Engineering who are interested in computers. The course taken by students in most B.Eng. programs (COMP 208 Computer Programming for Physical Sciences and Engineering .) and other courses included in the core of the various B.Eng. programs are listed below.

Search All Courses for other courses offered by the School of Computer Sciences (subject code COMP).

Students interested in this Minor should contact:

Liette Chin Undergraduate Program Coordinator School of Computer Science McConnell Engineering Building, Room 320 Telephone: 514-398-7071, ext. 00118 Email: liette.chin@mcgill.ca

and the Minor advisor page in the School of Computer Science.

#### **Computer Science Courses in Engineering Programs**

Expand allContract all

Course	Title	Credits
COMP 206	Introduction to Software Systems.	3
COMP 208	Computer Programming for Physical Science and Engineering.	es 3
COMP 250	Introduction to Computer Science.	3
COMP 251	Algorithms and Data Structures.	3
COMP 302	Programming Languages and Paradigms.	3
COMP 360	Algorithm Design.	3
COMP 421	Database Systems.	3

#### **Minor in Environment**

Environmental studies focus on the interactions between humans and their natural and technological environments. Environmental problems are complex, and their satisfactory solutions require the synthesis of social, scientific, and institutional knowledge.

The Minor in Environment is offered and administered by the Bieler School of Environment.

Since the program comprises a total of 18 credits for the Minor, additional credits beyond those needed for the B.Eng. degree are required. Students wishing to complete the Minor should prepare a program and have it approved by both their regular Engineering departmental advisor and the Minor program advisor. For program details, see the Minor in Environment page. Students interested in this Minor should contact Environment Program Advisor:

Website: mcgill.ca/environment/undergraduate-studies/programadvising Email: advisor.environment@mcgill.ca Telephone: 514-398-4306

#### **Minor Program in Management**

Prerequisites: None

Minor for Non-Management Students: Students considering this minor program should consult a Faculty student adviser in the McGill Engineering Student Centre (Student Affairs Office; Frank Dawson Adams Building, Room 22) before applying to the Desautels Faculty of Management.

Many engineers begin to assume management functions within a few years of graduation. They can, at this stage, take up the study of economics, behavioural science, and other management subjects. Students wishing to include such studies in their undergraduate program can take suitable courses from Engineering and Management.

A minor comprises 18 credits of courses available from the core program of the Desautels Faculty of Management (subject to timetable requirements). Some courses from the Management core program have considerable overlap with Engineering courses and thus are not available to Engineering students.

Students embarking on a minor must be prepared to take credits additional to their Engineering program. Students in a B.Eng. program may be able to count up to 6 credits of Complementary Studies Group B courses (Humanities and Social Sciences, Management Studies, and Law courses) toward both their Engineering major program and a Management minor where applicable. More information about Complementary Studies is given in each individual academic program listing for the B.Eng. degree (see Browse Academic Units and Programs).

Admission requirements for the Management minor change annually. Please consult the Desautels Faculty of Management website for more details.

Students planning to take any course with statistics as a prerequisite must have completed MGCR 271 Business Statistics. or an equivalent course approved by the BCom Student Affairs Office.

#### **Application and Program Requirements**

Detailed information on the following Minor program can be found on Desautels Minor for Non-Management Students page:

• Management (For Non-Management Students) (Minor) (18 credits)

Further information can also be found on the Faculty of Engineering website.

#### Minor in Musical Science and Technology

The Musical Science and Technology Minor focuses on interdisciplinary topics in science and technology applied to music. The goal of the program is to help prepare students for commercial jobs in the audio technology sector and/or for subsequent graduate research study. Enrolment in the MST Minor is limited to students with existing scientific backgrounds from all faculties at McGill University. Selection is based on prior experience in math, computer programming, and related sciences; expressed interest in the program; and Cumulative Grade Point Average (CGPA).

Detailed information on this program can be found on the program page – Musical Science and Technology Minor (B.Mus.) (18 credits).

The online application form must be submitted by the application deadline.

For further information about this Minor is available on the Schulich School of Music website.