

# Mining Engineering Curriculum - Fall 2015

CEGEP Entry

| 1st Term (Fall)   |                                               | 18 credits | Prerequisites/Co-requisites                    |
|-------------------|-----------------------------------------------|------------|------------------------------------------------|
| CCOM 206          | Communication in Engineering                  | 3          | -                                              |
| EPSC 221          | General Geology                               | 3          | -                                              |
| MATH 262          | Intermediate Calculus                         | 3          | P - MATH 141, MATH 133                         |
| MATH 263          | Ordinary Differential Equations for Engineers | 3          | C - MATH 262                                   |
| MECH 289          | Design Graphics                               | 3          | -                                              |
| MIME 200          | Introduction to the Minerals Industry         | 3          | -                                              |
| 2nd Term (Winter) |                                               | 17 credits | Prerequisites/Co-requisites                    |
| CIVE 205          | Statics                                       | 3          | -                                              |
| COMP 208          | Computers in Engineering                      | 3          | P - MATH 140, MATH 141                         |
| EPSC 225          | Properties of Minerals                        | 1          | -                                              |
| FACC 100          | Introduction to the Engineering Profession    | 1          | -                                              |
| FACC 300          | Engineering Economy                           | 3          | -                                              |
| MATH 264          | Advanced Calculus for Engineers               | 3          | P - MATH 262 / C - MATH 263                    |
| MIME 209          | Mathematical Applications                     | 3          | -                                              |
| 3rd Term (Summer) |                                               | 4 credits  | Prerequisites/Co-requisites                    |
| MIME 203          | Mine Surveying                                | 2          | P - MECH 289                                   |
| MIME 290          | Industrial Work Period 1                      | 2          | P - MIME 200 or MIME 203                       |
| 4th Term (Fall)   |                                               | 16 credits | Prerequisites/Co-requisites                    |
| CIVE 207          | Solid Mechanics                               | 4          | P - CIVE 205 or MECH 210                       |
| MIME 260          | Material Science and Engineering              | 3          | -                                              |
| MIME 340          | Applied Fluid Dynamics                        | 3          | P - CIVE 205                                   |
| MIME xxx          | Technical Complementary                       | 3          | -                                              |
| CS                | Complementary Studies Group B (HSSML)         | 3          | -                                              |
| 5th Term (Winter) |                                               | 15 credits | Prerequisites/Co-requisites                    |
| MIME 322          | Rock Fragmentation                            | 3          | P - MIME 200                                   |
| MIME 323          | Rock and Soil Mass Characterization           | 3          | P - EPSC 221, MIME 200                         |
| MIME 325          | Mineral Industry Economics                    | 3          | P - FACC 300/MIME 310                          |
| MIME 333          | Materials Handling                            | 3          | P - MIME 200                                   |
| MIME 341          | Introduction to Mineral Processing            | 3          | P - MIME 200 or MIME 250                       |
| 6th Term (Summer) |                                               | 2 credits  | Prerequisites/Co-requisites                    |
| MIME 291          | Industrial Work Period 2                      | 2          | P - MIME 290                                   |
| 7th Term (Fall)   |                                               | 14 credits | Prerequisites/Co-requisites                    |
| MIME 413          | Strategic Mine Planning with Uncertainty*     | 3          | P - MIME 325, MIME 419, MPMC 326, and MPMC 329 |
| MPMC 321          | Mécanique des roches et contrôle des terrains | 3          | P - MIME 323                                   |
| MPMC 326          | Recherche opérationnelle I                    | 3          | P - MATH 262                                   |
| MPMC 329          | Géologie minière                              | 2          | P - EPSC 221, MIME 200, MIME 209               |
| MPMC 330          | Géotechnique minière                          | 3          | P - MIME 323                                   |
| 8th Term (Winter) |                                               | 2 credits  | Prerequisites/Co-requisites                    |
| MIME 392          | Industrial Work Period 3                      | 2          | P - MIME 291, 75 program credits               |
| 9th Term (Summer) |                                               | 15 credits | Prerequisites/Co-requisites                    |
| MIME 419          | Surface Mining                                | 3          | P - MIME 322, MIME 325, MIME 333               |
| MIME 422          | Mine Ventilation                              | 3          | P - MIME 340                                   |
| MPMC 328          | Environnement et gestion des rejets miniers   | 3          | P - MIME 200, MIME 291                         |
| MPMC 421          | Exploitation en souterrain                    | 3          | P - MIME 322, MIME 325, MIME 333               |
| MIME xxx          | Technical Complementary                       | 3          | -                                              |
| 10th Term (Fall)  |                                               | 19 credits | Prerequisites/Co-requisites                    |
| ECSE 461          | Electric Machinery                            | 3          | -                                              |
| FACC 400          | Engineering Professional Practice             | 1          | P - FACC 100, 60 program credits               |
| MIME 425          | Applied Stochastic Orebody Modelling*         | 3          | P - MPMC 326, MPMC 329                         |
| MIME 426          | Mine Design and Feasibility Study Project     | 6          | P - MIME 333, MIME 325, MIME 421 or MPMC 321   |
| MIME xxx          | Technical Complementary                       | 3          | -                                              |
| CS                | Complementary Studies Group A (Impact)        | 3          | -                                              |

\*Either MIME 413 or MIME 425 (offered in alternate years) can be taken in the 7th and 10th term.

Technical Complementary courses are selected from an approved list given on the next page.

The Complementary Studies (CS) courses are Impact of Technology courses (Group A) and Humanities & Social Sciences, Management Studies and Law courses (Group B). These must be chosen from an approved list of courses/departments, found in the program list under "Complementary Studies" in the Faculty of Engineering Undergraduate section of the Programs, Courses and University Regulations publication ([www.mcgill.ca/study](http://www.mcgill.ca/study)) (see the Academic Programs section).

Students are responsible for satisfying pre-/co-requisites and verifying with their department that they are meeting the requirements of their program.

# Technical Complementary Courses - Mining Engineering

Courses selected from those listed below or any other approved technical course(s) in Engineering, Management or Science.

Note: not all courses are given annually; verification with course instructor is advised.

|          |                                                 | Credits | Prerequisites/Co-requisites                                        |
|----------|-------------------------------------------------|---------|--------------------------------------------------------------------|
| MIME 320 | Extraction of Energy Resources                  | 3       | -                                                                  |
| MIME 350 | Extractive Metallurgical Engineering            | 3       | P - MIME 200 or MIME 250, MIME 212                                 |
| MIME 442 | Modelling and Control: Mineral Processing       | 3       | P - MIME 341                                                       |
| MIME 484 | Mining Project                                  | 3       | P - MPMC 328, MPMC 421 / C - MIME 419, MIME 426                    |
| MIME 494 | Industrial Work Period 4                        | 3       | P - MIME 419, MPMC 328 and MPMC 421                                |
| MIME 520 | Stability of Rock Slopes                        | 3       | P - Permission of instructor                                       |
| MIME 521 | Stability of Underground Openings               | 3       | P - Permission of instructor                                       |
| MIME 527 | Selected Topics in Mineral Resource Engineering | 3       | P - 65 credits (admitted as Yr 1) or 85 credits (admitted as Yr 0) |
| MIME 544 | Analysis: Mineral Processing Systems 1          | 3       | P - MIME 341                                                       |
| MIME 545 | Analysis: Mineral Processing Systems 2          | 3       | P - MIME 341                                                       |
| MIME 588 | Reliability Analysis of Mining Systems          | 3       | P - Permission of instructor                                       |
| MPMC 320 | CAO et informatique pour les mines              | 3       | P - MIME 341                                                       |

**Last update: March 18, 2015**

For the official program listing, see the Programs, Courses and University Regulations publication ([www.mcgill.ca/study](http://www.mcgill.ca/study)).