

Mining Engineering Co-op Curriculum - Fall 2021

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 133 or equivalent, MATH 141 or equivalent
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	Computer Programming for Physical Sciences and Engineering	3	P - MATH 141 / C - MATH 133
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 and MIME 203
4th Term (Fall)		16 credits	Prerequisites/Co-requisites
CIVE 207	Solid Mechanics	4	P - CIVE 205 or MECH 210
FACC 250	Responsibilities of the Professional Engineer**	0	P - FACC 100 or BREE 250
MIME 260	Materials Science and Engineering	3	-
MIME 340	Applied Fluid Dynamics	3	-
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 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)		17 credits	Prerequisites/Co-requisites
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
MIME 425	Applied Stochastic Orebody Modelling	3	P - MPMC 326 and MPMC 329
MIME xxx	Technical Complementary	3	-
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 - CIVE 205 and MIME 323
MPMC 421	Exploitation en souterrain	3	P - MIME 322, MIME 325, MIME 333
MIME xxx	Technical Complementary	3	-
10th Term (Fall)		16 credits	Prerequisites/Co-requisites
ECSE 461	Electric Machinery	3	-
FACC 400	Engineering Professional Practice	1	P - FACC 100, FACC 250**, and 60 program credits
MIME 413	Strategic Mine Planning With Uncertainty	3	P - MIME 325, MIME 419, MPMC 326, and MPMC 329
MIME 426	Mine Design and Prefeasibility Study	6	P - MIME 333, MIME 325, MIME 421 or MPMC 321
CS	Complementary Studies Group A (Impact)*	3	-

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).

**FACC 250 is not yet indicated as a prerequisite in the eCalendar course information (www.mcgill.ca/study) but it will be before FACC 400 is taken.

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

8-9 credits (3-4 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
CFIN 410	Investment and Portfolio Management	3	P - MGCR 211, MGCR 341
CIVE 416	Geotechnical Engineering	3	P - CIVE 311 or instructor permission
CIVE 421	Municipal Systems	3	P - CIVE 327
CIVE 514	Structural Mechanics	3	P - CIVE 207 and instructor permission
CIVE 584	Groundwater Engineering	3	P - CIVE 311 or instructor permission
EPSC 320	Elementary Earth Physics	3	P - MATH 133, MATH 222/262, or equivalent courses
EPSC 549	Hydrogeology	3	P - Permission of instructor
FINE 482	International Finance 1	3	P - MGCR 341
MIME 320	Extraction of Energy Resources	3	-
MIME 442	Analysis, Modelling and Optimization in Mineral Processing	3	P - MIME 341
MIME 484	Mining Project	3	P - 85 credits completed
MIME 494	Industrial Work Period 4	2	P - MIME 419, MPMC 328, MPMC 421
MIME 511	Advanced Subsurface Ventilation and Air Conditioning	3	P - Permission of instructor
MIME 514	Sustainability Analysis of Mining Systems	3	P - FACC 300 and MIME 341, or permission of instructor
MIME 520	Stability of Rock Slopes	3	P - Permission of instructor
MIME 527	Selected Topics in Mineral Resource Engineering	3	P - 85 credits
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	-

Last update: April 15, 2021

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