

Non-CEGEP Entry

			15 credits	Prerequisites/Co-requisites
CHEM 110	General Chemistry 1	4		P - College level mathematics and physics or permission of instructor
FACC 100	Introduction to the Engineering Profession	1		-
MATH 133	Linear Algebra and Geometry	3		P - A course in functions
MATH 140	Calculus 1	3		P - High school calculus
PHYS 131	Mechanics and Waves	4		C - Calculus course [MATH 140]
			15 credits	Prerequisites/Co-requisites
CHEM 120	General Chemistry 2	4		P - College level mathematics and physics or permission of instructor
MATH 141	Calculus 2	4		P - MATH 140
PHYS 142	Electromagnetism and Optics	4		P - PHYS 131 / C - MATH 141
CS	Complementary Studies Group B (HSSML) - 1*	3		-
			15 credits	Prerequisites/Co-requisites
WCOM 206	Communication in Engineering	3		-
MATH 262	Intermediate Calculus	3		P - MATH 133, MATH 141
MECH 289	Design Graphics	3		-
MIME 250	Introduction to Extractive Metallurgy	3		C - WCOM 206
MIME 261	Structure of Materials	3		-
			15 credits	Prerequisites/Co-requisites
CHEM 233	Topics in Physical Chemistry	3		-
CIVE 205	Statics	3		-
MIME 209	Mathematical Applications	3		-
MIME 212	Engineering Thermodynamics	3		-
MIME 341	Introduction to Mineral Processing	3		P - MIME 200 or MIME 250
			3 credits	Prerequisites/Co-requisites
MATH 263	Ordinary Differential Equations for Engineers	3		C - MATH 262
			17 credits	Prerequisites/Co-requisites
CIVE 207	Solid Mechanics	4		P - CIVE 205 or MECH 210
COMP 208	Computers in Engineering	3		P - differential and integral calculus [MATH 140 and MATH 141] / C - linear algebra [MATH 133]
FACC 250	Responsibilities of the Professional Engineer	0		P - FACC 100 or BREE 250
MIME 317	Analytical and Characterization Techniques	3		P - MIME 261
MIME 356	Heat, Mass and Fluid Flow	4		P - MIME 212
MIME 360	Phase Transformations: Solids	3		P - MIME 260 or MIME 261 / P or C - MIME 212
			2 credits	Prerequisites/Co-requisites
MIME 280	Industrial Training 1	2		P - 40 program credits
			12 credits	Prerequisites/Co-requisites
FACC 300	Engineering Economy	3		-
MIME 345	Applications of Polymers	3		P - MIME 261 or instructor permission
MIME 350	Extractive Metallurgical Engineering	3		P - MIME 200 or MIME 250, MIME 212
MIME 467	Electronic Properties of Materials	3		P - MIME 261, MATH 263
			18 credits	Prerequisites/Co-requisites
ECSE 209	Electrotechnology	3		BT/F1 7.44 Tf1 0 0 1 272.33 430.15 Tm0 gququEn30

6 - 9 credits from the following:

		Credits	Prerequisites/Co-requisites
CIVE 512	Advanced Civil Engineering Materials	3	P - CIVE 202
MECH 530	Mechanics of Composite Materials	3	P - MECH 321
MIME 410	Research Project	3	P - Recommendation of instructor
MIME 442	Analysis, Modelling and Optimization in Mineral Processing	3	P - MIME 341
MIME 512	Corrosion and Degradation of Materials	3	P - MIME 261 and MIME 352 or permission of instructor
MIME 515	Material Surfaces: A Biomimetic Approach	3	P - (CHEE 310, CHEE 380) or (CHEM 233, MIME 261, MIME 317) or permission of instructor
or CHEE 515	Material Surfaces: A Biomimetic Approach	3	
MIME 526	Mineral Economics	3	P - Permission of instructor; background in economics required
MIME 542	Transmission Electron Microscopy	3	P - Permission of instructor
MIME 544	Analysis: Mineral Processing Systems 1	3	P - MIME 341
MIME 545	Analysis: Mineral Processing Systems 2	3	P - MIME 341
MIME 551	Electrochemical Processing	3	P - MIME 352
MIME 556	Sustainable Materials Processing	3	P - Permission of instructor
MIME 558	Engineering Nanomaterials	3	P - (MIME 260 or MIME 261) and MIME 362 or equivalent, or instructor permission
MIME 559	Aluminum Physical Metallurgy	3	P - MIME 360 and MIME 362 or instructor permission
MIME 560	Joining Processes	3	P - MIME 250, MIME 360
MIME 561	Advanced Materials Design	3	P - MIME 362 or equivalent
MIME 563	Hot Deformation of Metals	3	P - MIME 360, MIME 362
MIME 565	Aerospace Metallic-Materials and Manufacturing Processes	3	P - MIME 260 or MIME 261 or instructor permission
MIME 568	Topics in Advanced Materials	3	P - MIME 362 or equivalent
MIME 569	Electron Beam Analysis of Materials	3	P - MIME 317
MIME 570	Micro- and Nano-Fabrication Fundamentals	3	P - MIME 467 or ECSE 330 or equivalent, or permission of instructor
MIME 571	Surface Engineering	3	P - MIME 362
MIME 572	Computational Thermodynamics	3	P - MIME 212 or equivalent
MIME 580	Additive Manufacturing Using Metallic and Ceramic Materials	3	P - MIME 465 or instructor permission
MIME 456	Steelmaking and Steel Processing	3	P - MIME 360 / P or C - MIME 455

0 - 3 credits from courses outside of the Department of Mining and Materials Engineering, with departmental approval.

Last update: February 15, 2023

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