## **Materials Engineering Curriculum - Fall 2024**

**Non-CEGEP Entry** 

			Non-CEGEP Entr
1st Term (F	•	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]
2nd Term (		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	•
3rd Term (F	•	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	-
4th Term (V	Vinter)	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
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5th Term (S	,	3 credits	Prerequisites/Co-requisites
MATH 263	Ordinary Differential Equations for Engineers	3	C - MATH 262
6th Term (F	Fall)	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
7th Term (V	Phase Transformations: Solids  Winter)	3 2 credits	P - MIME 260 or MIME 261 / P or C - MIME 212  Prorequisites/Co-requisites
7th Term (V	Vinter)	2 credits	Prerequisites/Co-requisites
7th Term (V MIME 280	Ninter) Industrial Training 1	2 credits	P - 40 program credits
7th Term (V MIME 280 8th Term (S	Vinter) Industrial Training 1 Summer)	2 credits 2 12 credits	Prerequisites/Co-requisites
7th Term (V MIME 280 8th Term (S FACC 300	Vinter) Industrial Training 1 Summer) Engineering Economy	2 credits 2 12 credits 3	Prerequisites/Co-requisites P - 40 program credits Prerequisites/Co-requisites -
7th Term (V MIME 280 8th Term (S FACC 300 MIME 345	Vinter) Industrial Training 1 Summer) Engineering Economy Applications of Polymers	2 credits 2 12 credits 3 3	Prerequisites/Co-requisites P - 40 program credits Prerequisites/Co-requisites - P - MIME 261 or instructor permission
7th Term (V MIME 280 8th Term (S FACC 300 MIME 345 MIME 350	Vinter) Industrial Training 1 Summer) Engineering Economy Applications of Polymers Extractive Metallurgical Engineering	2 credits 2 12 credits 3 3 3	Prerequisites/Co-requisites P - 40 program credits Prerequisites/Co-requisites - P - MIME 261 or instructor permission P - MIME 200 or MIME 250, MIME 212
7th Term (V MIME 280 8th Term (S FACC 300 MIME 345 MIME 350 MIME 467	Vinter) Industrial Training 1 Summer) Engineering Economy Applications of Polymers Extractive Metallurgical Engineering Electronic Properties of Materials	2 credits 2 12 credits 3 3 3 3 3	Prerequisites/Co-requisites P - 40 program credits Prerequisites/Co-requisites - P - MIME 261 or instructor permission P - MIME 200 or MIME 250, MIME 212 P - MIME 261, MATH 263
7th Term (V MIME 280 8th Term (S FACC 300 MIME 345 MIME 350 MIME 467 9th Term (F	Vinter) Industrial Training 1 Summer) Engineering Economy Applications of Polymers Extractive Metallurgical Engineering Electronic Properties of Materials Fall)	2 credits 2 12 credits 3 3 3	Prerequisites/Co-requisites P - 40 program credits Prerequisites/Co-requisites - P - MIME 261 or instructor permission P - MIME 200 or MIME 250, MIME 212 P - MIME 261, MATH 263 Prerequisites/Co-requisites
7th Term (V MIME 280 8th Term (S FACC 300 MIME 345 MIME 350 MIME 467	Vinter) Industrial Training 1 Summer) Engineering Economy Applications of Polymers Extractive Metallurgical Engineering Electronic Properties of Materials	2 credits 2 12 credits 3 3 3 3 3	Prerequisites/Co-requisites P - 40 program credits Prerequisites/Co-requisites - P - MIME 261 or instructor permission P - MIME 200 or MIME 250, MIME 212 P - MIME 261, MATH 263
7th Term (V MIME 280 8th Term (S FACC 300 MIME 345 MIME 350 MIME 467 9th Term (F	Vinter) Industrial Training 1 Summer) Engineering Economy Applications of Polymers Extractive Metallurgical Engineering Electronic Properties of Materials Fall)	2 credits 2 12 credits 3 3 3 3 18 credits	Prerequisites/Co-requisites P - 40 program credits Prerequisites/Co-requisites - P - MIME 261 or instructor permission P - MIME 200 or MIME 250, MIME 212 P - MIME 261, MATH 263 Prerequisites/Co-requisites
7th Term (V MIME 280 8th Term (S FACC 300 MIME 345 MIME 350 MIME 467 9th Term (F ECSE 209	Vinter) Industrial Training 1 Summer) Engineering Economy Applications of Polymers Extractive Metallurgical Engineering Electronic Properties of Materials Fall) Electrotechnology	2 credits 2 12 credits 3 3 3 3 18 credits	Prerequisites/Co-requisites P - 40 program credits Prerequisites/Co-requisites - P - MIME 261 or instructor permission P - MIME 200 or MIME 250, MIME 212 P - MIME 261, MATH 263 Prerequisites/Co-requisites P - PHYS 142
7th Term (V MIME 280 8th Term (S FACC 300 MIME 345 MIME 350 MIME 467 9th Term (F ECSE 209 MIME 352	Vinter) Industrial Training 1 Summer) Engineering Economy Applications of Polymers Extractive Metallurgical Engineering Electronic Properties of Materials Fall) Electrotechnology Hydrochemical Processing	2 credits 2 12 credits 3 3 3 3 18 credits	Prerequisites/Co-requisites P - 40 program credits Prerequisites/Co-requisites - P - MIME 261 or instructor permission P - MIME 200 or MIME 250, MIME 212 P - MIME 261, MATH 263 Prerequisites/Co-requisites P - PHYS 142 P - CHEM 233, MIME 200 or MIME 250, MIME 212, MIME 356
7th Term (V MIME 280 8th Term (S FACC 300 MIME 345 MIME 350 MIME 467 9th Term (F ECSE 209 MIME 352 MIME 362 MIME 362 MIME 362	Vinter) Industrial Training 1 Summer) Engineering Economy Applications of Polymers Extractive Metallurgical Engineering Electronic Properties of Materials Fall) Electrotechnology Hydrochemical Processing Mechanical Properties Metallic and Ceramic Powders Processing	2 credits 2 12 credits 3 3 3 3 18 credits 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Prerequisites/Co-requisites P - 40 program credits Prerequisites/Co-requisites - P - MIME 261 or instructor permission P - MIME 200 or MIME 250, MIME 212 P - MIME 261, MATH 263 Prerequisites/Co-requisites P - PHYS 142 P - CHEM 233, MIME 200 or MIME 250, MIME 212, MIME 356 P - MIME 360
7th Term (V MIME 280 8th Term (S FACC 300 MIME 345 MIME 350 MIME 467 9th Term (F ECSE 209 MIME 352 MIME 362	Vinter) Industrial Training 1 Summer) Engineering Economy Applications of Polymers Extractive Metallurgical Engineering Electronic Properties of Materials Fall) Electrotechnology Hydrochemical Processing Mechanical Properties Metallic and Ceramic Powders Processing Engineering Biomaterials	2 credits 2 12 credits 3 3 3 3 18 credits 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Prerequisites/Co-requisites P - 40 program credits Prerequisites/Co-requisites - P - MIME 261 or instructor permission P - MIME 200 or MIME 250, MIME 212 P - MIME 261, MATH 263 Prerequisites/Co-requisites P - PHYS 142 P - CHEM 233, MIME 200 or MIME 250, MIME 212, MIME 356 P - MIME 360 P - MIME 360
7th Term (V MIME 280 8th Term (S FACC 300 MIME 345 MIME 350 MIME 467 9th Term (F ECSE 209 MIME 362 MIME 362 MIME 465 MIME 470 MIME 470 MIME xxx	Industrial Training 1 Summer)  Engineering Economy Applications of Polymers Extractive Metallurgical Engineering Electronic Properties of Materials  Fall)  Electrotechnology Hydrochemical Processing Mechanical Properties Metallic and Ceramic Powders Processing Engineering Biomaterials Technical Complementary	2 credits 2 12 credits 3 3 3 3 18 credits 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Prerequisites/Co-requisites P - 40 program credits Prerequisites/Co-requisites - P - MIME 261 or instructor permission P - MIME 200 or MIME 250, MIME 212 P - MIME 261, MATH 263 Prerequisites/Co-requisites P - PHYS 142 P - CHEM 233, MIME 200 or MIME 250, MIME 212, MIME 356 P - MIME 360 P - MIME 360 P - MIME 360 P - MIME 261
7th Term (V MIME 280 8th Term (S FACC 300 MIME 345 MIME 350 MIME 467 9th Term (F ECSE 209 MIME 352 MIME 362 MIME 362 MIME 470 MIME 470 MIME xxx	Industrial Training 1 Summer) Engineering Economy Applications of Polymers Extractive Metallurgical Engineering Electronic Properties of Materials Fall) Electrotechnology Hydrochemical Processing Mechanical Properties Metallic and Ceramic Powders Processing Engineering Biomaterials Technical Complementary (Winter)	2 credits 2 12 credits 3 3 3 3 18 credits 3 3 15 credits	Prerequisites/Co-requisites P - 40 program credits Prerequisites/Co-requisites - P - MIME 261 or instructor permission P - MIME 200 or MIME 250, MIME 212 P - MIME 261, MATH 263 Prerequisites/Co-requisites P - PHYS 142 P - CHEM 233, MIME 200 or MIME 250, MIME 212, MIME 356 P - MIME 360 P - MIME 360 P - MIME 360 P - MIME 261 - Prerequisites/Co-requisites
7th Term (VMIME 280 8th Term (SEC 300 MIME 345 MIME 350 MIME 467 9th Term (FEC 209 MIME 352 MIME 362 MIME 465 MIME 470 MIME xxx 10th Term (MATH 264	Industrial Training 1 Summer)  Engineering Economy Applications of Polymers Extractive Metallurgical Engineering Electronic Properties of Materials  Fall) Electrotechnology Hydrochemical Processing Mechanical Properties Metallic and Ceramic Powders Processing Engineering Biomaterials Technical Complementary (Winter) Advanced Calculus for Engineers	2 credits 2 12 credits 3 3 3 3 18 credits 3 3 3 15 credits 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Prerequisites/Co-requisites P - 40 program credits Prerequisites/Co-requisites  - P - MIME 261 or instructor permission P - MIME 200 or MIME 250, MIME 212 P - MIME 261, MATH 263 Prerequisites/Co-requisites P - PHYS 142 P - CHEM 233, MIME 200 or MIME 250, MIME 212, MIME 356 P - MIME 360 P - MIME 360 P - MIME 360 P - MIME 360 P - MIME 261 - Prerequisites/Co-requisites P - MATH 262 / C - MATH 263
7th Term (VMIME 280 8th Term (SEACC 300 MIME 345 MIME 350 MIME 467 9th Term (FECSE 209 MIME 362 MIME 465 MIME 470 MIME xxx 10th Term (MATH 264 MIME 311	Industrial Training 1 Summer) Engineering Economy Applications of Polymers Extractive Metallurgical Engineering Electronic Properties of Materials Fall) Electrotechnology Hydrochemical Processing Mechanical Properties Metallic and Ceramic Powders Processing Engineering Biomaterials Technical Complementary (Winter) Advanced Calculus for Engineers Modelling and Automatic Control	2 credits 2 12 credits 3 3 3 3 18 credits 3 3 3 18 credits 3 3 3 15 credits 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Prerequisites/Co-requisites P - 40 program credits Prerequisites/Co-requisites - P - MIME 261 or instructor permission P - MIME 200 or MIME 250, MIME 212 P - MIME 261, MATH 263 Prerequisites/Co-requisites P - PHYS 142 P - CHEM 233, MIME 200 or MIME 250, MIME 212, MIME 356 P - MIME 360 P - MIME 360 P - MIME 261 - Prerequisites/Co-requisites P - MATH 262 / C - MATH 263 P - MIME 356
7th Term (VMIME 280 8th Term (SE) FACC 300 MIME 345 MIME 350 MIME 467 9th Term (FE) ECSE 209 MIME 352 MIME 362 MIME 465 MIME 470 MIME 470 MIME 470 MIME 470 MIME 311 MIME 455	Industrial Training 1 Summer) Engineering Economy Applications of Polymers Extractive Metallurgical Engineering Electronic Properties of Materials Fall) Electrotechnology Hydrochemical Processing Mechanical Properties Metallic and Ceramic Powders Processing Engineering Biomaterials Technical Complementary (Winter) Advanced Calculus for Engineers Modelling and Automatic Control Advanced Process Engineering	2 credits 2 12 credits 3 3 3 3 18 credits 3 3 18 credits 3 3 15 credits 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Prerequisites/Co-requisites P - 40 program credits Prerequisites/Co-requisites  - P - MIME 261 or instructor permission P - MIME 200 or MIME 250, MIME 212 P - MIME 261, MATH 263 Prerequisites/Co-requisites P - PHYS 142 P - CHEM 233, MIME 200 or MIME 250, MIME 212, MIME 356 P - MIME 360 P - MIME 360 P - MIME 360 P - MIME 360 P - MIME 261 - Prerequisites/Co-requisites P - MATH 262 / C - MATH 263
7th Term (VMIME 280 8th Term (SE) FACC 300 MIME 345 MIME 350 MIME 467 9th Term (FE) ECSE 209 MIME 352 MIME 362 MIME 465 MIME 470 MIME XXX 10th Term (MIME XXX MIME 311 MIME 455 MIME XXX	Industrial Training 1 Summer) Engineering Economy Applications of Polymers Extractive Metallurgical Engineering Electronic Properties of Materials Fall) Electrotechnology Hydrochemical Processing Mechanical Properties Metallic and Ceramic Powders Processing Engineering Biomaterials Technical Complementary (Winter) Advanced Calculus for Engineers Modelling and Automatic Control Advanced Process Engineering Technical Complementary	2 credits 2 12 credits 3 3 3 3 18 credits 3 3 3 15 credits 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Prerequisites/Co-requisites P - 40 program credits Prerequisites/Co-requisites - P - MIME 261 or instructor permission P - MIME 200 or MIME 250, MIME 212 P - MIME 261, MATH 263 Prerequisites/Co-requisites P - PHYS 142 P - CHEM 233, MIME 200 or MIME 250, MIME 212, MIME 356 P - MIME 360 P - MIME 360 P - MIME 261 - Prerequisites/Co-requisites P - MATH 262 / C - MATH 263 P - MIME 356
7th Term (VMIME 280 8th Term (SEC 300 MIME 345 MIME 350 MIME 467 9th Term (FECSE 209 MIME 362 MIME 362 MIME 465 MIME 470 MIME xxx 10th Term (MATH 264 MIME 311 MIME 455 MIME 455 MIME xxx CS	Industrial Training 1 Summer)  Engineering Economy Applications of Polymers Extractive Metallurgical Engineering Electronic Properties of Materials  Fall)  Electrotechnology Hydrochemical Processing Mechanical Properties Metallic and Ceramic Powders Processing Engineering Biomaterials Technical Complementary (Winter)  Advanced Calculus for Engineers Modelling and Automatic Control Advanced Process Engineering Technical Complementary Complementary Studies Group A (Impact)*	2 credits 2 12 credits 3 3 3 3 18 credits 3 3 3 15 credits 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Prerequisites/Co-requisites P - 40 program credits Prerequisites/Co-requisites - P - MIME 261 or instructor permission P - MIME 200 or MIME 250, MIME 212 P - MIME 261, MATH 263 Prerequisites/Co-requisites P - PHYS 142 P - CHEM 233, MIME 200 or MIME 250, MIME 212, MIME 356 P - MIME 360 P - MIME 360 P - MIME 361 - Prerequisites/Co-requisites P - MIME 261 - Prerequisites/Co-requisites P - MATH 262 / C - MATH 263 P - MIME 356 P - MIME 356 MIME 356
7th Term (VMIME 280 8th Term (SMIME 345 MIME 345 MIME 350 MIME 467 9th Term (FMIME 352 MIME 362 MIME 362 MIME 465 MIME 470 MIME XXX 10th Term (MIME XXX LOTH 1264 MIME 311 MIME XXX CS 11th Term (MIME XXX CS	Industrial Training 1 Summer) Engineering Economy Applications of Polymers Extractive Metallurgical Engineering Electronic Properties of Materials Fall) Electrotechnology Hydrochemical Processing Mechanical Properties Metallic and Ceramic Powders Processing Engineering Biomaterials Technical Complementary (Winter) Advanced Calculus for Engineers Modelling and Automatic Control Advanced Process Engineering Technical Complementary Complementary Studies Group A (Impact)* (Summer)	2 credits 2 12 credits 3 3 3 3 18 credits 3 3 3 15 credits 3 3 2 credits	Prerequisites/Co-requisites P - 40 program credits Prerequisites/Co-requisites - P - MIME 261 or instructor permission P - MIME 200 or MIME 250, MIME 212 P - MIME 261, MATH 263 Prerequisites/Co-requisites P - PHYS 142 P - CHEM 233, MIME 200 or MIME 250, MIME 212, MIME 356 P - MIME 360 P - MIME 360 P - MIME 360 P - MIME 261 - Prerequisites/Co-requisites P - MATH 262 / C - MATH 263 P - MIME 356 P - MIME 356 - P - MIME 356 - P - MIME 356 - Prerequisites/Co-requisites
7th Term (VMIME 280 8th Term (SEC 300 MIME 345 MIME 345 MIME 350 MIME 467 9th Term (FEC 209 MIME 362 MIME 362 MIME 465 MIME 470 MIME XXX 10th Term (MIME 311 MIME 455 MIME 455 MIME XXX CS 11th Term (MIME 380	Industrial Training 1 Summer) Engineering Economy Applications of Polymers Extractive Metallurgical Engineering Electronic Properties of Materials Fall) Electrotechnology Hydrochemical Processing Mechanical Properties Metallic and Ceramic Powders Processing Engineering Biomaterials Technical Complementary (Winter) Advanced Calculus for Engineers Modelling and Automatic Control Advanced Process Engineering Technical Complementary Complementary Studies Group A (Impact)* (Summer) Industrial Training 2	2 credits 2 12 credits 3 3 3 3 18 credits 3 3 3 3 15 credits 3 3 2 credits 2	Prerequisites/Co-requisites P - 40 program credits Prerequisites/Co-requisites - P - MIME 261 or instructor permission P - MIME 200 or MIME 250, MIME 212 P - MIME 261, MATH 263 Prerequisites/Co-requisites P - PHYS 142 P - CHEM 233, MIME 200 or MIME 250, MIME 212, MIME 356 P - MIME 360 P - MIME 360 P - MIME 360 P - MIME 261 - Prerequisites/Co-requisites P - MATH 262 / C - MATH 263 P - MIME 356 P - MIME 356
7th Term (VMIME 280 8th Term (SEC 300 MIME 345 MIME 350 MIME 467 9th Term (FECSE 209 MIME 352 MIME 362 MIME 465 MIME 470 MIME XXX 10th Term (MIME 311 MIME 455 MIME 455 MIME 455 MIME XXX CS 11th Term (MIME 280	Industrial Training 1 Summer) Engineering Economy Applications of Polymers Extractive Metallurgical Engineering Electronic Properties of Materials Fall) Electrotechnology Hydrochemical Processing Mechanical Properties Metallic and Ceramic Powders Processing Engineering Biomaterials Technical Complementary (Winter) Advanced Calculus for Engineers Modelling and Automatic Control Advanced Process Engineering Technical Complementary Complementary Studies Group A (Impact)* (Summer) Industrial Training 2	2 credits 2 12 credits 3 3 3 3 18 credits 3 3 3 15 credits 3 3 2 credits	Prerequisites/Co-requisites P - 40 program credits Prerequisites/Co-requisites - P - MIME 261 or instructor permission P - MIME 200 or MIME 250, MIME 212 P - MIME 261, MATH 263 Prerequisites/Co-requisites P - PHYS 142 P - CHEM 233, MIME 200 or MIME 250, MIME 212, MIME 356 P - MIME 360 P - MIME 360 P - MIME 360 P - MIME 261 - Prerequisites/Co-requisites P - MATH 262 / C - MATH 263 P - MIME 356 P - MIME 356 - P - MIME 356 - P - MIME 356 - Prerequisites/Co-requisites
7th Term (No. 10 MimE 280) 8th Term (Some September 1988) FACC 300 MimE 345 MimE 350 MimE 467 9th Term (Fecse 209) MimE 352 MimE 362 MimE 465 MimE 470 MimE xxx 10th Term (MimE 311 MimE 455 MimE 455 MimE 455 MimE 455 MimE 380	Industrial Training 1 Summer) Engineering Economy Applications of Polymers Extractive Metallurgical Engineering Electronic Properties of Materials Fall) Electrotechnology Hydrochemical Processing Mechanical Properties Metallic and Ceramic Powders Processing Engineering Biomaterials Technical Complementary (Winter) Advanced Calculus for Engineers Modelling and Automatic Control Advanced Process Engineering Technical Complementary Complementary Studies Group A (Impact)* (Summer) Industrial Training 2	2 credits 2 12 credits 3 3 3 3 18 credits 3 3 3 3 15 credits 3 3 2 credits 2	Prerequisites/Co-requisites P - 40 program credits Prerequisites/Co-requisites - P - MIME 261 or instructor permission P - MIME 200 or MIME 250, MIME 212 P - MIME 261, MATH 263 Prerequisites/Co-requisites P - PHYS 142 P - CHEM 233, MIME 200 or MIME 250, MIME 212, MIME 356 P - MIME 360 P - MIME 360 P - MIME 360 P - MIME 261 - Prerequisites/Co-requisites P - MATH 262 / C - MATH 263 P - MIME 356 P - MIME 356
7th Term (VMIME 280 8th Term (SEC 300 MIME 345 MIME 345 MIME 350 MIME 467 9th Term (FEC 209 MIME 352 MIME 362 MIME 362 MIME 465 MIME 470 MIME XXX 10th Term (MIME 311 MIME 455 MIME 455 MIME 455 MIME 380 12th Term (MIME 380	Industrial Training 1 Summer)  Engineering Economy Applications of Polymers Extractive Metallurgical Engineering Electronic Properties of Materials  Fall)  Electrotechnology Hydrochemical Processing Mechanical Properties Metallic and Ceramic Powders Processing Engineering Biomaterials Technical Complementary  (Winter)  Advanced Calculus for Engineers Modelling and Automatic Control Advanced Process Engineering Technical Complementary  Complementary Studies Group A (Impact)*  (Summer) Industrial Training 2  (Fall) Industrial Training 3	2 credits 2 12 credits 3 3 3 3 18 credits 3 3 3 18 credits 3 3 3 3 15 credits 3 3 2 credits 2 2 credits 2	Prerequisites/Co-requisites P - 40 program credits Prerequisites/Co-requisites - P - MIME 261 or instructor permission P - MIME 200 or MIME 250, MIME 212 P - MIME 261, MATH 263 Prerequisites/Co-requisites P - PHYS 142 P - CHEM 233, MIME 200 or MIME 250, MIME 212, MIME 356 P - MIME 360 P - MIME 360 P - MIME 360 P - MIME 261 - Prerequisites/Co-requisites P - MATH 262 / C - MATH 263 P - MIME 356 P - MIME 356 Prerequisites/Co-requisites P - MIME 356 P - MIME 356 P - MIME 356 P - MIME 280 Prerequisites/Co-requisites P - MIME 280 Prerequisites/Co-requisites P - MIME 380
7th Term (VMIME 280 8th Term (SEACC 300 MIME 345 MIME 350 MIME 467 9th Term (FECSE 209 MIME 352 MIME 362 MIME 465 MIME 465 MIME 470 MIME 470 MIME 470 MIME 470 MIME 311 MIME 455 MIME 4	Industrial Training 1 Summer)  Engineering Economy Applications of Polymers Extractive Metallurgical Engineering Electronic Properties of Materials  Fall)  Electrotechnology Hydrochemical Processing Mechanical Properties Metallic and Ceramic Powders Processing Engineering Biomaterials Technical Complementary  (Winter)  Advanced Calculus for Engineers Modelling and Automatic Control Advanced Process Engineering Technical Complementary  Complementary Studies Group A (Impact)*  (Summer) Industrial Training 2  (Fall) Industrial Training 3  (Winter)	2 credits 2 12 credits 3 3 3 3 18 credits 3 3 3 18 credits 3 3 3 3 15 credits 3 3 2 credits 2 2 credits 2 17 credits	Prerequisites/Co-requisites P - 40 program credits Prerequisites/Co-requisites - P - MIME 261 or instructor permission P - MIME 200 or MIME 250, MIME 212 P - MIME 261, MATH 263 Prerequisites/Co-requisites P - PHYS 142 P - CHEM 233, MIME 200 or MIME 250, MIME 212, MIME 356 P - MIME 360 P - MIME 360 P - MIME 360 P - MIME 261 - Prerequisites/Co-requisites P - MATH 262 / C - MATH 263 P - MIME 356 P - MIME 356 Prerequisites/Co-requisites P - MIME 380 Prerequisites/Co-requisites P - MIME 280 Prerequisites/Co-requisites P - MIME 380 Prerequisites/Co-requisites
7th Term (VMIME 280 8th Term (SE) FACC 300 MIME 345 MIME 350 MIME 467 9th Term (FE) ECSE 209 MIME 352 MIME 465 MIME 465 MIME 470 MIME 470 MIME 311 MIME 455 MIME 450 MIME 460 MIME 460 MIME 460	Industrial Training 1 Summer) Engineering Economy Applications of Polymers Extractive Metallurgical Engineering Electronic Properties of Materials Fall) Electrotechnology Hydrochemical Processing Mechanical Properties Metallic and Ceramic Powders Processing Engineering Biomaterials Technical Complementary (Winter) Advanced Calculus for Engineers Modelling and Automatic Control Advanced Process Engineering Technical Complementary Complementary Studies Group A (Impact)* (Summer) Industrial Training 2 (Fall) Industrial Training 3 (Winter) Engineering Professional Practice	2 credits 2 12 credits 3 3 3 3 18 credits 3 3 3 18 credits 3 3 3 3 15 credits 3 3 2 credits 2 2 credits 2 17 credits	Prerequisites/Co-requisites P - 40 program credits Prerequisites/Co-requisites - P - MIME 261 or instructor permission P - MIME 200 or MIME 250, MIME 212 P - MIME 201, MATH 263 Prerequisites/Co-requisites P - PHYS 142 P - CHEM 233, MIME 200 or MIME 250, MIME 212, MIME 356 P - MIME 360 P - MIME 360 P - MIME 360 P - MIME 261 - Prerequisites/Co-requisites P - MATH 262 / C - MATH 263 P - MIME 356 P - MIME 380 Prerequisites/Co-requisites P - MIME 380 Prerequisites/Co-requisites P - MIME 380 Prerequisites/Co-requisites P - FACC 100, FACC 250**, and 60 program credits
7th Term (VMIME 280 8th Term (SMIME 280 8th Term (SMIME 345 MIME 345 MIME 350 MIME 467 9th Term (FMIME 352 MIME 362 MIME 362 MIME 465 MIME 470 MIME 470 MIME 470 MIME 470 MIME 311 MIME 455 MIME 455 MIME 480 13th Term (MIME 480 13th Term (MIME 480 MIME 452	Industrial Training 1 Summer) Engineering Economy Applications of Polymers Extractive Metallurgical Engineering Electronic Properties of Materials Fall) Electrotechnology Hydrochemical Processing Mechanical Properties Metallic and Ceramic Powders Processing Engineering Biomaterials Technical Complementary (Winter) Advanced Calculus for Engineers Modelling and Automatic Control Advanced Process Engineering Technical Complementary Complementary Studies Group A (Impact)* (Summer) Industrial Training 2 (Fall) Industrial Training 3 (Winter) Engineering Professional Practice Process and Materials Design	2 credits 2 12 credits 3 3 3 3 18 credits 3 3 3 18 credits 3 3 3 3 15 credits 3 3 2 credits 2 17 credits 2 17 credits	Prerequisites/Co-requisites P - 40 program credits Prerequisites/Co-requisites - P - MIME 261 or instructor permission P - MIME 200 or MIME 250, MIME 212 P - MIME 261, MATH 263 Prerequisites/Co-requisites P - PHYS 142 P - CHEM 233, MIME 200 or MIME 250, MIME 212, MIME 356 P - MIME 360 P - MIME 360 P - MIME 360 P - MIME 261 - Prerequisites/Co-requisites P - MATH 262 / C - MATH 263 P - MIME 356 P - MIME 356 P - MIME 356 P - MIME 356 P - MIME 360 P - MIME 356 P - MIME 350 P - MIME 280 Prerequisites/Co-requisites P - MIME 380 Prerequisites/Co-requisites P - MIME 380 Prerequisites/Co-requisites P - MIME 311, MIME 341, MIME 352, MIME 362, FACC 300, CCOM 206
7th Term (VMIME 280 8th Term (SEC 300 MIME 345 MIME 345 MIME 350 MIME 467 9th Term (FEC 209 MIME 352 MIME 362 MIME 465 MIME 465 MIME 470 MIME 311 MIME 311 MIME 455 MIME 380 12th Term (MIME 380 12th Term (MIME 480 13th Term (MIME 480 MIME 480 MIME 452 MIME 473	Industrial Training 1 Summer) Engineering Economy Applications of Polymers Extractive Metallurgical Engineering Electronic Properties of Materials Fall) Electrotechnology Hydrochemical Processing Mechanical Properties Metallic and Ceramic Powders Processing Engineering Biomaterials Technical Complementary (Winter) Advanced Calculus for Engineers Modelling and Automatic Control Advanced Process Engineering Technical Complementary (Complementary Studies Group A (Impact)* (Summer) Industrial Training 2 (Fall) Industrial Training 3 (Winter) Engineering Professional Practice Process and Materials Design Introduction to Computational Materials Design	2 credits 2 12 credits 3 3 3 3 18 credits 3 3 3 18 credits 3 3 3 15 credits 3 3 2 credits 2 17 credits 1 4 3	Prerequisites/Co-requisites P - 40 program credits Prerequisites/Co-requisites - P - MIME 261 or instructor permission P - MIME 200 or MIME 250, MIME 212 P - MIME 261, MATH 263 Prerequisites/Co-requisites P - PHYS 142 P - CHEM 233, MIME 200 or MIME 250, MIME 212, MIME 356 P - MIME 360 P - MIME 360 P - MIME 360 P - MIME 261 - Prerequisites/Co-requisites P - MATH 262 / C - MATH 263 P - MIME 356 P - MIME 356 P - MIME 356 P - MIME 360 P - MIME 360 P - MIME 356 P - MIME 350 Prerequisites/Co-requisites P - MIME 280 Prerequisites/Co-requisites P - MIME 380 Prerequisites/Co-requisites P - MIME 381 P- FACC 100, FACC 250**, and 60 program credits P - MIME 311, MIME 341, MIME 352, MIME 362, FACC 300, CCOM 206 P - MIME 209 and MIME 261, or permission of instructor
7th Term (VMIME 280 8th Term (SEC 300 MIME 345 MIME 350 MIME 467 9th Term (FECSE 209 MIME 362 MIME 362 MIME 465 MIME 465 MIME 470 MIME 311 MIME 311 MIME 455 MIME 380 12th Term (MIME 380 12th Term (MIME 480 MIME 482 MIME 473 MIME XXX	Industrial Training 1 Summer)  Engineering Economy Applications of Polymers Extractive Metallurgical Engineering Electronic Properties of Materials  Fall)  Electrotechnology Hydrochemical Processing Mechanical Properties Metallic and Ceramic Powders Processing Engineering Biomaterials Technical Complementary (Winter)  Advanced Calculus for Engineers Modelling and Automatic Control Advanced Process Engineering Technical Complementary (Complementary Studies Group A (Impact)* (Summer) Industrial Training 2 (Fall) Industrial Training 3 (Winter)  Engineering Professional Practice Process and Materials Design Introduction to Computational Materials Design Technical Complementary	2 credits 2 12 credits 3 3 3 3 18 credits 3 3 3 3 3 15 credits 3 3 3 2 credits 2 17 credits 1 4 3 3 3 3 3	Prerequisites/Co-requisites P - 40 program credits Prerequisites/Co-requisites - P - MIME 261 or instructor permission P - MIME 200 or MIME 250, MIME 212 P - MIME 261, MATH 263 Prerequisites/Co-requisites P - PHYS 142 P - CHEM 233, MIME 200 or MIME 250, MIME 212, MIME 356 P - MIME 360 P - MIME 360 P - MIME 360 P - MIME 261 - Prerequisites/Co-requisites P - MATH 262 / C - MATH 263 P - MIME 356 P - MIME 356 P - MIME 356 P - MIME 380 Prerequisites/Co-requisites P - MIME 380 Prerequisites/Co-requisites P - MIME 380 Prerequisites/Co-requisites P - MIME 311, MIME 341, MIME 352, MIME 362, FACC 300, CCOM 206 P - MIME 209 and MIME 261, or permission of instructor
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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). Students must take one course (3 credits) from Group A and two courses (6 credits) from Group B. The curriculum above includes suggested terms during which these courses can be taken. 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) (see your program listing in the "Browse Academic Units & Programs" section).

<sup>\*\*</sup>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.

## 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

<sup>0 - 3</sup> 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).