Mechanical Engineering Curriculum - Fall 2025

Out of Province Entry

1st Term (Fall)		17 credits	Prerequisites/Co-requisites
MECH 292	Design 1: Conceptual Design	3	-
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]
WCOM 206	Communication in Engineering	3	-
2nd Term (Winter)		**18 credits**	**Prerequisites/Co-requisites**
MECH 215	Statics	3	P - PHYS 101 or PHYS 131 or equivalent
COMP 208	Computers in Engineering	3	C - MATH 133 and MATH 141 or equivalent
MATH 141	Calculus 2	4	P - MATH 140
CHEM 120	General Chemistry 2	4	P - College level mathematics and physics or permission from instructor
PHYS 142	Electromagnetism and Optics	4	P - PHYS 131 / C - MATH 141
3rd Term (Fall)		**17 credits**	**Prerequisites/Co-requisites**
MECH 241	Thermodynamics	4	-
BIEN 203	Statistics and Data Science	3	P - COMP 208
CIVE 207	Solid Mechanics	4	P - MECH 215
MATH 262	Intermediate Calculus	3	P - MATH 133, MATH 141
MATH 263	Ordinary Differential Equations for Engineers	3	C - MATH 262
4th Term (Winter)		**18 credits**	**Prerequisites/Co-requisites**
MECH 360	Principles of Manufacturing	3	P - MECH 292, CIVE 207, C - MIME 260
MECH 390	Design 2 - Computer-Aided Design	3	P - MECH 292
MECH 265	Numerical Linear Algebra	3	P - COMP 208, BIEN 203, C - MATH 263
ECSE 209	Electrotechnology	3	P - PHYS 142 or equivalent
MATH 264	Advanced Calculus for Engineers	3	P - MATH 262 / C - MATH 263
MIME 260	Materials Science and Engineering	3	-
5th Term (Fall)		**18 credits**	**Prerequisites/Co-requisites**
MECH 220	Introduction to Dynamics	4	P - MECH 215, MATH 262, C - MATH 263
MECH 332	Fluid Mechanics	4	P - MECH 241, C - MECH 220, MATH 266
MECH 415	Applied Solid Mechanics	4	P - CIVE 207
FACC 250	Responsibilities of the Professional Engineer	0	P - FACC 100 or BREE 250
MATH 266	Theory and Numerical ODEs & PDEs	3	P - MECH 265, MATH 264
CS	Complementary Studies Group B (HSSML)*	3	-
6th Term (Winter)		**18 credits**	**Prerequisites/Co-requisites**
MECH 301	Mechatronics	4	P - BIEN 203, ECSE 209, MECH 265
MECH 315	Intermediate Dynamics	4	P - MATH 266, MECH 220
MECH 346	Heat Transfer	3	P - MECH 332, MATH 266
MECH 493	Design 3: Machine Element Design	4	P - CIVE 207, MIME 260, MECH 292, C - MECH 360, MECH 390
CS	Complementary Studies Group A (Impact)*	3	-
7th Term (Fall)		**18 credits**	**Prerequisites/Co-requisites**
MECH 421	System Dynamics and Control	4	P - MECH 315, MECH 301
MECH 441	Applied Thermofluids	4	P - MECH 241, MECH 332, MECH 346
MECH 463D1	Design 4: Capstone Design	3	P - MECH 360, MECH 390, MECH 493, MIME 260
FACC 400	Engineering Professional Practice	1	P - FACC 100, FACC 250**, and 60 program credits
FACC 300	Engineering Economy	3	-
TC xxx	Technical Elective/Minor *	3	-
8th Term (Winter)		**18 credits**	**Prerequisites/Co-requisites**
MECH 463D2	Design 4: Capstone Design	3	P - MECH 463D1
TC xxx	Technical Elective/Minor *	3	-
TC xxx	Technical Elective/Minor *	3	-
TC xxx	Technical Elective/Minor *	3	-
TC xxx	Technical Elective/Minor *	3	-
CS	Complementary Studies Group B (HSSML) - 1*	3	-

* The TC xxx courses are 6 credits at the 500 level or higher, chosen from Mechanical Engineering courses (subject code MECH).
9 credits chosen from courses at the 300 level or higher (approved by the Department) in the Faculty of Engineering (including MECH courses) and in the Faculty of Science, or selected courses from Group A and Group B (approved by the Department).

* The Faculty of Engineering and Science Technical Complementary courses must be selected from the approved list in the Student Handbook.

*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).

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