Mechanical Engineering Honours Curriculum (Theme 2 - Thermofluids) - Fall 2025

CEGEP Entry

1st Term (Fall)		**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 or equivalent, MATH 141 or equivalent
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
MIME 260	Materials Science and Engineering	3	-
CS	Complementary Studies Group B (HSSML)*	3	-
2nd Term (Winter)		**17 credits**	**Prerequisites/Co-requisites**
MECH 241	Thermodynamics	4	-
MECH 292	Design 1: Conceptual Design	3	-
BIEN 203	Statistics and Data Science	3	P - COMP 208
CIVE 207	Solid Mechanics	4	P - CIVE 205 or MECH 215
MATH 264	Advanced Calculus for Engineers	3	P - MATH 262, C - MATH 263
3rd Term (Fall)		**16 credits**	**Prerequisites/Co-requisites**
MECH 265	Numerical Linear Algebra	3	P - COMP 208, BIEN 203, C - MATH 263
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
ECSE 209	Electrotechnology	3	P - PHYS 142 or equivalent
FACC 100	Intro to the Engineering Profession	1	-
WCOM 206	Communication in Engineering	3	-
4th Term (Winter)		**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 A (Impact)*	3	-
5th Term (Fall)		**15 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
6th Term (Winter)		**18 credits**	**Prerequisites/Co-requisites**
MECH 421	System Dynamics and Control	4	P - MECH 315, MECH 301
MECH 442	Honours 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
MECH 403D1	Thesis (Honours)	3	-
FACC 300	Engineering Economy	3	-
FACC 400	Engineering Professional Practice	1	P - FACC 100, FACC 250**, and 60 program credits
7th Term (Fall)		**15 credits**	**Prerequisites/Co-requisites**
MECH 463D2	Design 4: Capstone Design	3	P - MECH 463D1
MECH 403D2	Thesis (Honours)	3	-
MECH 404	Honours Thesis 2	3	-
TC xxx	Technical Complementary *	3	-
TC xxx	Technical Complementary *	3	-

* The TC xxx courses are 6 credits at the 500 level or higher, chosen from Mechanical Engineering courses (subject code MECH).

*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.