

Mechanical Engineering Curriculum - Fall 2011 (Stream A - Option 1)

CEGEP Entry

1st Semester (Fall)		13 credits	Prerequisites/Co-requisites
COMP 208	Computers in Engineering	3	P - MATH 140, MATH 141
MATH 262	Intermediate Calculus	3	P - MATH 141, MATH 133
MECH 201	Introduction to Mechanical Engineering	2	-
MECH 210	Mechanics 1	2	-
EC	Elective - 1	3	-
2nd Semester (Winter)		17 credits	Prerequisites/Co-requisites
FACC 100	Introduction to the Engineering Profession	1	-
MATH 263	Ordinary Differential Equations for Engineers	3	C - MATH 262
MATH 264	Advanced Calculus for Engineers	3	P - MATH 262 / C - MATH 263
MECH 220	Mechanics 2	4	P - MECH 210, MATH 262 / C - MATH 263
MECH 262	Statistics and Measurement Laboratory	3	-
MECH 289	Design Graphics	3	-
3rd Semester (Fall)		16 credits	Prerequisites/Co-requisites
MATH 271	Linear Algebra and Partial Differential Equations	3	P - MATH 263, MATH 264
CIVE 207	Solid Mechanics	4	P - MECH 210 or CIVE 205
MECH 292	Conceptual Design	3	P - MECH 260, MECH 289 / C - CIVE 207
MIME 260	Material Science and Engineering	3	-
EC	Elective - 2	3	-
4th Semester (Winter)		15 credits	Prerequisites/Co-requisites
CCOM 206	Communication in Engineering	3	-
MECH 240	Thermodynamics 1	3	-
MECH 309	Numerical Methods in Mechanical Engineering	3	P - MATH 263, MATH 271, COMP 208
MECH 314	Dynamics of Mechanisms	3	P - MECH 220
MECH 331	Fluid Mechanics 1	3	P - MECH 210 / C - MECH 220, MECH 240, MATH 271
5th Semester (Fall)		16 credits	Prerequisites/Co-requisites
MECH 315	Mechanics 3	4	P - MECH 220, MATH 271 / C - CIVE 207
MECH 341	Thermodynamics 2	3	P - MECH 240
MECH 346	Heat Transfer	3	P - MECH 240, MECH 331, MATH 271
MECH 360	Principles of Manufacturing	3	P - CIVE 207, MECH 289, MIME 260
MECH 393	Machine Element Design	3	P - MECH 260, MECH 289, CIVE 207 / C - MECH 292, MECH 314, MIME 260
6th Semester (Winter)		15 credits	Prerequisites/Co-requisites
MECH 321	Mechanics of Deformable Solids	3	P - CIVE 207
MECH 383	Applied Electronics and Instrumentation	3	P - MECH 262, MATH 263
MECH 430	Fluid Mechanics 2	3	P - MECH 240, MECH 331
MIME 310	Engineering Economy	3	-
MECH xxx	Technical Complementary	3	-
7th Semester (Fall)		14 credits	Prerequisites/Co-requisites
ECSE 461	Electric Machinery	3	-
MECH 362	Mechanical Laboratory 1	2	P - MECH 262
MECH 412	Dynamics of Systems	3	P - MECH 309 or MATH 317, MECH 315 / C - MECH 331
MECH 463D1	Mechanical Engineering Project	3	P - CCOM 206 or EDEC 206, MECH 393
CS	Complementary Studies Group A (Impact) or Group B (HSSML)	3	-
8th Semester (Winter)		13 credits	Prerequisites/Co-requisites
FACC 400	Engineering Professional Practice	1	P - FACC 100, 60 program credits
MECH 463D2	Mechanical Engineering Project	3	P - MECH 463D1
MECH xxx	Technical Complementary	3	-
MECH xxx	Technical Complementary	3	-
CS	Complementary Studies Group A (Impact) or Group B (HSSML)	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). These must be chosen from an approved list of courses/departments, found in the program list under "Complementary Studies" in the Programs, Courses and University Regulations Calendar (www.mcgill.ca/study).

Elective courses (EC) may be chosen from any course at the 200-level or higher in the Desautels Faculty of Management, Faculty of Agricultural and Environmental Sciences, Faculty of Arts, Faculty of Engineering, Faculty of Religious Studies, Faculty of Science, and/or Schulich School of Music.

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 - Mechanical Engineering

6 credits at the 300-level or higher, chosen from Mechanical Engineering courses (subject code MECH). One of these two courses (3 credits) must be chosen from the following list:

	Credits
MECH 513 Control Systems	3
MECH 529 Discrete Manufacturing Systems	3
MECH 530 Mechanics of Composite Materials	3
MECH 532 Aircraft Performance, Stability and Control	3
MECH 535 Turbomachinery and Propulsion	3
MECH 536 Aircraft Structures	3
MECH 541 Kinematic Synthesis	3
MECH 543 Design with Composite Materials	3
MECH 544 Processing of Composite Materials	3
MECH 554 Microprocessors for Mechanical Systems	3
MECH 557 Mechatronic Design	3
MECH 563 Biofluids and Cardiovascular Mechanics	3
or CHEE 563 Biofluids and Cardiovascular Mechanics	3
MECH 573 Mechanics of Robotic Systems	3
MECH 577 Optimum Design	3
MECH 593 Design Theory and Methodology	3

One course (3 credits), subject to Departmental approval, at the 300-level or higher from the Faculty of Engineering (including MECH courses) or from courses in the Faculty of Science, including MATH courses.

May 11, 2011