

Mechanical Engineering Curriculum - Fall 2010 (Stream A - Option 2)

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 260	Machine Tool Laboratory	2	-
MECH 289	Design Graphics	3	-
2nd Semester (Winter)		15 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 210	Mechanics 1	2	-
MECH 262	Statistics and Measurement Laboratory	3	-
MIME 260	Materials Science and Engineering	3	-
3rd Semester (Fall)		16 Credits	Prerequisites/Co-requisites
CCOM 206	Communication in Engineering	3	-
MATH 271	Linear Algebra and Partial Differential Equations	3	P - MATH 263, MATH 264
MECH 220	Mechanics 2	4	P - MECH 210, MATH 262 / C - MATH 263
MECH 240	Thermodynamics 1	3	-
EC	Elective - 1	3	-
4th Semester (Winter)		17 Credits	Prerequisites/Co-requisites
CIVE 207	Solid Mechanics	4	P - MECH 210 or CIVE 205
MECH 292	Conceptual Design	3	P - MECH 260, MECH 289 / C - CIVE 207
MECH 315	Mechanics 3	4	P - MECH 220, MATH 271 / C - CIVE 207
MECH 341	Thermodynamics 2	3	P - MECH 240
EC	Elective - 2	3	-
5th Semester (Fall)		15 Credits	Prerequisites/Co-requisites
MATH 317*	Numerical Analysis	3	P - MATH 263
MECH 314	Dynamics of Mechanisms	3	P - MECH 220
MECH 321	Mechanics of Deformable Solids	3	P - CIVE 207
MECH 331	Fluid Mechanics 1	3	P - MECH 210 / C - MECH 220, MECH 240, MATH 271
MECH 383	Applied Electronics and Instrumentation	3	P - MECH 262, MATH 263
6th Semester (Winter)		15 Credits	Prerequisites/Co-requisites
MECH 346	Heat Transfer	3	P - MECH 240, MECH 331, MATH 271
MECH 393	Machine Element Design	3	P - MECH 260, MECH 289, CIVE 207 / C - MECH 292, MECH 314, MIME 260
MECH 412	Dynamics of Systems	3	P - MECH 309 or MATH 317, MECH 315 / C - MECH 331
MIME 310	Engineering Economy	3	-
ECSE 461	Electric Machinery	3	-
7th Semester (Fall)		14 Credits	Prerequisites/Co-requisites
MECH 362	Mechanical Laboratory 1	2	P - MECH 262
MECH 430	Fluid Mechanics 2	3	P - MECH 240, MECH 331
MECH 463D1	Mechanical Engineering Project	3	P - CCOM 206 or EDEC 206, MECH 393
MECH xxx	Technical Complementary	3	-
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 McGill credits
MECH 463D2	Mechanical Engineering Project	3	P - MECH 363D1
MECH xxx	Technical Complementary	3	-
MECH xxx	Technical Complementary	3	-
CS	Complementary Studies Group A (Impact) or Group B (HSSML)	3	-

*MATH 317: Students in Stream B take MATH 317 in the Fall term. Students in Stream A and C take equivalent course MECH 309 (Numerical Methods in Mechanical Engineering) in the Winter term.

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 in the *Programs, Courses and University Regulations Calendar* (www.mcgill.ca/study/2010-2011/faculties/engineering/undergraduate/ug_engineering_academic_programs) under "Complementary Studies."

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 528 Product Design	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.

July 20, 2010