Mechanical Engineering Curriculum - Fall 2010 (Stream A - Option 1)

CEGEP Entry

1st Semester (Fall)		12 Credits	Prerequisites/Co-requisites
MATH 262	Intermediate Calculus	3	P - MATH 141, MATH 133
MECH 201	Introduction to Mechanical Engineering	2	-
MECH 210	Mechanics 1	2	-
MECH 260	Machine Tool Lab	2	-
COMP 208	Computers in Engineering	3	P - MATH 140, MATH 141
2nd Semester (Winter)		**17 Credits**	**Prerequisites/Co-requisites**
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	-
FACC 100	Introduction to the Engineering Profession	1	-
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 - 1	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 393	Machine Element Design	3	P - MECH 260, MECH 289, CIVE 207 / C - MECH 292, MECH 314, MIME 260
EC	Elective - 2	3	-
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 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