Civil Engineering Curriculum - Fall 2010

Non-CEGEP Entry

1st Semester (Fall)		15 Credits	Pre-requisites/Co-requisites Required
CHEM 110	General Chemistry 1	4	-
FACC 100	Introduction to the Engineering Profession	1	-
MATH 133	Linear Algebra and Geometry	3	-
MATH 140	Calculus 1	3	-
PHYS 131	Mechanics and Waves	4	C - MATH 140
2nd Semester (Winter)		18 Credits	Pre-requisites/Co-requisites Required
CHEM 120	General Chemistry 2	4	-
MATH 141	Calculus 2	4	P - MATH 140
PHYS 142	Electromagnetism and Optics	4	P - PHYS 131 / C - MATH 141
CS	Complementary Studies Group A (Impact)	3	-
CS	Complementary Studies Group B (HSSML) - 1	3	-
3rd Semester (Fall)		18 Credits	Pre-requisites/Co-requisites Required
CCOM 206	Communication in Engineering	3	
CIVE 205	Statics	3	-
CIVE 290	Thermodynamics and Heat Transfer	3	-
EPSC 221	General Geology	3	-
MATH 262	Intermediate Calculus	3	P - MATH 141, MATH 133
MECH 289	Design Graphics	3	-
4th Semester (Winter)		17 Credits	Pre-requisites/Co-requisites Required
CIVE 202	Construction Materials	4	P - CIVE 290
CIVE 206	Dynamics	3	P - CIVE 205 / C - MATH 262, MATH 263
CIVE 207	Solid Mechanics	4	P - CIVE 205
COMP 208	Computers in Engineering	3	P - MATH 140, MATH 141
MATH 263	Ordinary Differential Equations for Engineers	3	C - MATH 262
5th Semester (Summer)		2 Credits	Pre-requisites/Co-requisites Required
CIVE 210	Surveying	2	P - MECH 289
6th Semester (Fall)		18 Credits	Pre-requisites/Co-requisites Required
CIVE 208	Civil Engineering System Analysis	3	P - COMP 208 / C - MATH 264
CIVE 311	Geotechnical Mechanics	4	P - CIVE 207
CIVE 317	Structural Engineering 1	3	P - CIVE 202, CIVE 207, MECH 289
MATH 264	Advanced Calculus for Engineers	3	P - MATH 262 / C - MATH 263
MECH 261	Measurement Laboratory	2	-
MIME 310	Engineering Economy	3	-
7th Semester (Winter)		17 Credits	Pre-requisites/Co-requisites Required
CIVE 225	Environmental Engineering	4	P - CIVE 290 / C - MATH 263
CIVE 302	Probabilistic Systems	3	P - MATH 262, COMP 208
CIVE 318	Structural Engineering 2	3	P - CIVE 317
CIVE 319	Transportation Engineering	3	P - CIVE 208, COMP 208 / C - CIVE 302
CIVE 327	Fluid Mechanics and Hydraulics	4	P - CIVE 206, MATH 264
8th Semester (Fall)		17 Credits	Pre-requisites/Co-requisites Required
CIVE 320	Numerical Methods	4	P - COMP 208, MATH 264
CIVE 323	Hydrology and Water Resources	3	P - CIVE 302
CIVE 432	Technical Paper	1	P - CCOM 206 or EDEC 206
CIVE xxx	Technical Complementary	3	-
CIVE xxx	Technical Complementary	3	-
CS	Complementary Studies Group B (HSSML) - 2	3	-
9th Semester (Winter)		17 Credits	Pre-requisites/Co-requisites Required
CIVE 324	Construction Project Management	3	P - MIME 310, CIVE 208
CIVE 418	Design Project	4	-
CIVE xxx	Technical Complementary	3	-
CIVE xxx	Technical Complementary	3	-
CIVE xxx	Technical Complementary	3	-
FACC 400	Engineering Professional Practice	1	P - FACC 100, 60 program credits

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."

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 - Civil Engineering

A minimum of six credits to be selected from List A and the remaining nine credits to be selected from List A and/or B or from other suitable undergraduate or 500-level courses.

List A - Design Technical Complementaries

6-15 credits from the following:

		Credits
CIVE 416	Geotechnical Engineering	3
CIVE 421	Municipal Systems	3
CIVE 428	Water Resources and Hydraulic Engineering	3
CIVE 430	Water Treatment and Pollution Control	3
CIVE 462	Design of Steel Structures	3
CIVE 463	Design of Concrete Structures	3

List B - General Technical Complementaries

0-9 credits from the following:

		Credits
CIVE 433	Urban Planning	3
CIVE 440	Traffic Engineering	3
CIVE 446	Construction Engineering	3
CIVE 451	Geoenvironmental Engineering	3
CIVE 460	Matrix Structural Analysis	3
CIVE 470	Undergraduate Research Project	3
CIVE 512	Advanced Civil Engineering Materials	3
CIVE 527	Renovation and Preservation: Infrastructure	3
CIVE 540	Urban Transportation Planning	3
CIVE 550	Water Resources Management	3
CIVE 551	Environmental Transport Processes	3
CIVE 553	Stream Pollution and Control	3
CIVE 555	Environmental Data Analysis	3
CIVE 572	Computational Hydraulics	3
CIVE 573	Hydraulic Structures	3
CIVE 574	Fluid Mechanics of Water Pollution	3
CIVE 577	River Engineering	3
CIVE 584	Groundwater Engineering	3
CIVE 587	Pavement Design	3

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