

Civil Engineering Curriculum - Fall 2011

Non-CEGEP Entry

1st Semester (Fall)		15 credits	Prerequisites/Co-requisites
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	Prerequisites/Co-requisites
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	Prerequisites/Co-requisites
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	Prerequisites/Co-requisites
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	Prerequisites/Co-requisites
CIVE 210	Surveying	2	P - MECH 289
6th Semester (Fall)		18 credits	Prerequisites/Co-requisites
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	Prerequisites/Co-requisites
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	Prerequisites/Co-requisites
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	Prerequisites/Co-requisites
CIVE 324	Construction Project Management	3	P - MIME 310, CIVE 208
CIVE 418	Design Project	4	-
FACC 400	Engineering Professional Practice	1	P - FACC 100, 60 program credits
CIVE xxx	Technical Complementary	3	-
CIVE xxx	Technical Complementary	3	-
CIVE xxx	Technical Complementary	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).

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 440 Traffic Engineering and Simulation	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 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 514 Structural Mechanics	3
CIVE 527 Renovation and Preservation: Infrastructure	3
CIVE 540 Urban Transportation Planning	3
CIVE 546 Selected Topics in Civil Engineering 1	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 558 Biomolecular Techniques for Environmental Engineering	3
CIVE 560 Transportation Safety and Design	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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