

Course sequence
Civil Engineering and Computing Technology

1st YEAR (30 credits)

		<u>Session</u>	<u>Prerequisite</u>
CHM1311	Principles of Chemistry	Fall	4U chemistry or OAC Chemistry or equivalent.
ENG1112	Technical Report Writing	Fall	
GNG1105	Engineering Mechanics	Fall	Physics 4U, advanced functions and Introductory Calculus 4U or equivalent.
ITI1120	Introduction to Computing I	Fall	
MAT1320	Calculus I	Fall	One of MAT1339, Ontario 4U Calculus and Vectors (MCV4U) or an equivalent.
CVG1107	Civil Engineering Graphics and Seminars	Winter	
ITI1121	Introduction to Computing II	Winter	ITI1120
MAT1322	Calculus II	Winter	MAT1320
MAT1341	Introduction to Linear Algebra	Winter	MAT1339 or Ontario 4U Calculus and Vectors (MCV4U), or an equivalent.
PHY1122	Fundamentals of Physics II	Winter	OAC or 4U Physics; corequisite: MAT1320

2nd YEAR (36 credits)

		<u>Session</u>	<u>Prerequisite</u>
CVG2132	Fundamentals of Environmental Engineering	Fall	CHM1311
CVG2141	Civil Engineering Materials	Fall	CHM1311
CVG2149	Civil Engineering Mechanics	Fall	GNG1105, MAT1322, PHY1122
MAT2322	Calculus III for Engineers	Fall	(MAT1322 or MAT1325 or MAT1332), (MAT1341 or CEGEP linear algebra)
MAT2384	Ordinary Differential Equations and Numerical Methods	Fall	MAT1341, (MAT1322 or MAT1325 or MAT1332)
SEG2105	Introduction to Software Engineering	Fall	ITI1121
CVG2107	Geotechnical Materials and Processes	Winter	
CVG2116	Introduction to Fluid Mechanics	Winter	CVG2149, MAT1322
CVG2140	Mechanics of Materials I	Winter	GNG1105
CVG2171	Surveying and Measurements	Winter	
CVG2181	Numerical Modelling in Civil Engineering	Winter	GNG1106, MAT2322, MAT2384
MAT1348	Discrete Mathematics for Computing	Winter	MAT1318, Ontario 4U Advanced Functions (MHF4U) or equivalent

3rd YEAR (36 credits)

		<u>Session</u>	<u>Prerequisite</u>
CSI2110	Data Structures and Algorithms	Fall	ITI1121, MAT1348
CVG3109	Soil Mechanics I	Fall	CVG2107, CVG2140
CVG3116	Hydraulics	Fall	CVG2116
CVG3140	Theory of Structures I	Fall	CVG2140, CVG2149
CVG3141	Mechanics of Materials II	Fall	CVG2140, CVG2149, MAT2384
HIS2129 or PHI2394	Technology, Society and Environment since 1800 / Scientific Thought and Social Value	Winter (HIS2129) Fall (PHI2394)	
CVG3106	Soil Mechanics II	Winter	CVG3109
CVG3132	Physical / Chemical Unit Operations of Water and Wastewater Treatment	Winter	CVG2116, CVG2132
CVG3147	Structural Steel Design I	Winter	CVG2141, CVG3140, CVG3141. Corequisite:

CVG3148
ITII100
MAT2377

Reinforced Concrete Design I
Digital Systems I
Probability and Statistics for
Engineers

Winter
Winter
Fall

MAT2377
CVG2141, CVG3140

MAT1320 or MAT1330; corequisite:
MAT1322 or MAT1325 or MAT1332

4th YEAR (30 credits)

CVG3120
CVG4148
CVG4150

Hydrology
Theory of Structures II
Highway and Transportation
Engineering

Session
Fall
Fall
Fall

Prerequisite
MAT2377
CVG2181, CVG3140
CVG2171, CVG2107, CVG2141

Elective
Science Elective

CSI2120
CVG4113

Programming Paradigms
Hydraulics of Water Supply and Sewer
Systems

Fall
Fall
Winter
Winter

CSI2110
CVG3116

CVG4130
ECO1192
Elective (CSI, SEG,
GEO4301A: GIS
for Science and
Engineering)

Advanced Environmental Engineering
Engineering Economics

Winter
Winter
Winter

CVG2132

5th YEAR (30 credits)

CVG4001

Introduction to Civil Engineering
Project

Session
Fall

Prerequisite
CVG3106, CVG3116, CVG3132, CVG3147,
CVG3148

CVG4108
Elective
Elective (CSI, SEG,
GEO4301A: GIS
for Science and
Engineering)

Geotechnical Design

Fall
Fall
Fall

CVG3109, CVG3106

CVG4175
CVG4907
GNG4170
Elective (CSI, SEG,
GEO4301A: GIS
for Science and
Engineering)

Field Investigations
Engineering Design Project
Engineering Law

Fall
Winter
Winter
Winter

CVG2132, CVG3116, CVG3106
MAT2377, CVG4001

Elective (CSI, SEG,
GEO4301A: GIS
for Science and
Engineering)
Technical Elective

Winter

Winter