

2015-2016 Course Sequence  
BASc in Civil Engineering, Structural and Geotechnical Option

**1<sup>st</sup> YEAR (30 credits)**

		<b><u>Session</u></b>	<b><u>Prerequisite(s)</u></b>
CHM1311	Principles of Chemistry	Fall	4U or OAC Chemistry or equivalent
ENG1112	Technical Report Writing	Fall	
GNG1105	Engineering Mechanics	Fall	Physics 4U, advanced functions and Introductory Calculus 4U or equivalent
GNG1106	Fundamentals of Engineering Computation	Fall	
MAT1320	Calculus I	Fall	One of MAT1339, Ontario 4U Calculus and Vectors MCV4U) or an equivalent
CVG1107	Civil Engineering Graphics and Seminars	Winter	
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 (preferred) or MAT1330
ECO1192	Engineering Economics	Winter	

**2<sup>nd</sup> YEAR (36 credits)**

		<b><u>Session</u></b>	<b><u>Prerequisite(s)</u></b>
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)
Elective		Fall	
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
MAT2377	Probability and Statistics for Engineers	Winter	MAT1322 or MAT1325 or MAT1332

**3<sup>rd</sup> YEAR (33 credits)**

		<b><u>Session</u></b>	<b><u>Prerequisite(s)</u></b>
CVG3109	Soil Mechanics I	Fall	CVG2107, CVG2140
CVG3116	Hydraulics	Fall	CVG2116
CVG3120	Hydrology	Fall	MAT2377
CVG3140	Theory of Structures I	Fall	CVG2140, CVG2149
CVG3141	Mechanics of Materials II	Fall	CVG2140, CVG2149, MAT2384
PHI2394	Scientific Thought and Social Values	Fall	
or			
HIS2129	Technology, Society and Environment since 1800	Winter	
CVG3106	Soil Mechanics II	Winter	CVG3109
CVG3132	Physical / Chemical Unit Operations of Water and Wastewater Treatment	Winter	
CVG3147	Structural Steel Design I	Winter	CVG2116, CVG2132
			CVG2141, CVG3140, CVG3141. Corequisite: MAT2377
CVG3148	Reinforced Concrete Design I	Winter	CVG2141, CVG3140
Science Elective		Winter	

**4<sup>th</sup> YEAR (33 credits)**

CVG4001	Introduction to Civil Engineering Project
CVG4108	Geotechnical Design
CVG4148	Theory of Structures II
CVG4150	Highway and Transportation Engineering
CVG4173	Construction Management
CVG4175	Field Investigations
CVG4907	Engineering Design Project
GNG4170	Engineering Law
Elective	
Technical Elective	
3 credits from CVG4143, CVG4145 or CVG4146	

**Session**

Fall  
  
Fall  
Fall  
  
Fall  
Fall  
Winter  
Winter  
Winter  
Winter

**Prerequisite(s)**

CVG3106, CVG3116, CVG3132, CVG3147, CVG3148  
CVG3109, CVG3106  
CVG2181, CVG3140  
  
CVG2171, CVG2107, CVG2141  
CVG3106, CVG3147, CVG3148  
CVG2132, CVG3116, CVG3106  
CVG4001