

Course Sequence
Software Engineering, Management and Entrepreneurship Option

1st YEAR (30 credits)

		<u>Session</u>	<u>Prerequisite</u>
CHM1311	Principles of Chemistry	Fall	4U chemistry or OAC Chemistry or equivalent.
GNG1105	Engineering Mechanics	Fall/Winter	Physics 4U, advanced functions and Introductory Calculus 4U or equivalent
ITI1120	Introduction to computing I	Fall/Winter	
MAT1320	Calculus I	Fall/Winter	One of MAT1339, Ontario 4U Calculus and Vectors MCV4U) or an equivalent.
MAT1341	Introduction to Linear Algebra	Fall/Winter	MAT1339 or Ontario 4U Calculus and Vectors (MCV4U), or an equivalent.
ADM1100	Introduction to Business Management	Fall/Winter	
ITI1100	Digital systems I	Winter	
ITI1121	Introduction to computing II	Winter	ITI1120
MAT1322	Calculus II	Fall/Winter	MAT1320
MAT1348	Discrete Mathematics for Computing	Winter	

2nd YEAR (36 credits)

		<u>Session</u>	<u>Prerequisite</u>
CEG2136	Computer architecture I	Fall	ITI1100
CSI2110	Data Structures and Algorithms	Fall	ITI1121, MAT1348
ECO1192	Engineering Economics	Fall/Winter	
ENG1112	Technical Report Writing	Fall/Winter	
SEG2105	Introduction to Software Engineering	Fall	ITI1121
Science Elective		Fall/Winter	
ADM2320	Marketing	Fall/Winter	ADM1100 or ADM1300
CSI2101	Discrete Structures	Winter	MAT1348
CSI2132	Databases I	Winter	CSI2110
MAT2377	Probability and Statistics for Engineers	Fall/Winter	MAT1320 or MAT1330; corequisite: MAT1322 or MAT1325 or MAT1332
PHY1124	Fundamentals of Physics for Engineers	Winter	OAC or 4U Physics, MAT1320
SEG2106	Software Construction	Winter	CSI2110, SEG2105

3rd YEAR (33 credits)

		<u>Session</u>	<u>Prerequisite</u>
CSI3105	Design and Analysis of Algorithms I	Fall	CSI2110, CSI2101 or for honors mathematics students: CSI2110, (MAT2141 or MAT2143)
HIS2129 or PHI2394	Technology, Society and Environment since 1800 / Scientific Thought and Social Value	Winter (HIS2129) Fall (PHI2394)	
SEG3101	Software Requirements Analysis	Fall	SEG2105
SEG3102	Software Design and Architecture	Fall	(SEG2105, CSI2120) ou SEG2106
Computing elective ¹		Fall	
Engineering elective ²		Fall/Winter	
ADM1340	Financial Accounting	Fall/Winter	ADM1100 or ADM1300
CSI3131	Operating systems	Winter	CEG2136, CSI2110
SEG3103	Software Quality Assurance	Winter	SEG2105
SEG3125	Analysis and Design of User Interfaces	Winter	SEG2105
CEG3185	Communication and Networking	Winter	MAT2377 or (MAT2371, MAT2375), or corequisite : ELG3126

¹ 6 credits from: {CEG3136/3536, CEG3155/3555, CSI2120/2520, CSI2372/2772, CSI3130/3530, CSI3140/3540, CSI4139/4539 / CEG4399/4799, SEG4110, SEG4156 et SEG4189}

² 3 credits from: {CHG2317/2717, CVG2141/2541, CVG2149/2549, ELG2138/2538, MCG2108/2508, MCG2130/2530 et MCG2360/2760}

4th YEAR (33 credits)

		<u>Session</u>	<u>Prerequisite</u>
ADM3313	Entrepreneurial Mind: New Venture Creation	Fall/Winter	ADM1100 or ADM1300
SEG4105	Software Project Management	Fall	SEG2105 plus two third year SEG or CSI courses
SEG4910	Engineering Capstone Project - Part 1	Fall	Completion of all 3000 series SEG courses required by the SEG program. Note: The project started in SEG4910 must be completed in SEG4911; if a student has to start a new project, SEG4910 must be repeated
Science elective		Fall/Winter	
Technical elective ³		Fall/Winter	
Computing elective ¹		Fall	
SEG4145	Real Time and Embedded Software Design	Winter	CEG2136, CSI3131, SEG2106
SEG2911	Professional Software Engineering Practice	Winter	
SEG4911	Engineering Capstone Project - Part 2	Winter	SEG4910
Technical elective ³		Fall/Winter	
Management option ⁴		Automne/Hiver	

¹ 6 credits from: {CEG3136/3536, CEG3155/3555, CSI2120/2520, CSI2372/2772, CSI3130/3530, CSI3140/3540, CSI4139/4539 / CEG4399/4799, SEG4110, SEG4156 et SEG4189}

³ 15 credits at the 3000 level from {CEG/CSI/ELG/SEG} or 12 credits at the 3000 level from {CEG/CSI/ELG/SEG} and 3 credits from ADM3378 et GEG2320}

⁴ 3 credits parmi / 3 credits from: {ADM1101/1501, ADM2336/2736, 3318/3718, 3319/3719, ADM3326/3726, GNG4170/4570, GNG4171/4571 et PHI2397/2797}