2015-2016 Course Sequence
Honours BSc with Specialization in Computer Science

1st YEAR (30 credits)

		Session	Prerequisite(s)
ITI1120	Introduction to Computing I	Fall	
MAT1320	Calculus I	Fall	One of MAT1339, Ontario 4U Calculus and Vectors MCV4U) or an equivalent
MAT1341	Introduction to Linear Algebra	Fall	MAT1339 or Ontario 4U Calculus and Vectors (MCV4U), or an equivalent
Elective*		Fall	
Elective*		Fall	
ITI1100	Digital Systems I	Winter	
ITI1121	Introduction to Computing II	Winter	ITI1120
MAT1322	Calculus II	Winter	MAT1320
MAT1348	Discrete Mathematics for Computing	Winter	
Elective*		Winter	

* 27 credits of non-computing, non-mathematics electives

2nd YEAR (30 credits)

		Session	Prerequisite(s)
CEG2136	Computer Architecture I	Fall	ITI1100
CSI2110	Data Structures and Algorithms	Fall	ITI1121, MAT1348
ENG1112	Technical Report Writing	Fall	
SEG2105	Introduction to Software Engineering	Fall	ITI1121
Elective*		Fall	
CSI2101	Discrete Structures	Winter	MAT1348
CSI2120	Programming Paradigms	Winter	CSI2110
CSI2132	Databases I	Winter	CSI2110
MAT2377	Probability and Statistics for Engineers	Winter	MAT1320 or MAT1330; corequisite: MAT1322 or MAT1325 or MAT1332
CSI2911	Professional Practice in Computing	Winter	

* 27 credits of non-computing, non-mathematics electives

3rd YEAR (30 credits)

		Session	Prerequisite(s)
CSI3105	Design and Analysis of Algorithms I	Fall	CSI2110, CSI2101 or for honors mathematics students: CSI2110, (MAT2141 or MAT2143)
CSI3120	Programming Language Concepts	Fall	CSI2101, CSI2120
CSI3130	Databases II	Fall	CSI2132
Elective*		Fall	
Elective*		Fall	
CSI3104	Introduction to Formal Languages	Winter	CSI2101 or MAT2143
CSI3131	Operating systems	Winter	CEG2136, CSI2110
CSI3140	WWW Structures, Techniques and Standard	Winter	CSI2110, CSI2132
CEG3185	Introduction to Data Communications and Networking	Winter	MAT2377 or (MAT2371, MAT2375), or corequisite : ELG3126
Elective*		Winter	

* 27 credits of non-computing, non-mathematics electives

4th YEAR (30 credits)

		Session	Prerequisite(s)
Elective (CSI 4000)		Fall	
Elective (CSI 4000)		Fall	
Elective (CEG, ELG, SEG 3000)		Fall	
Elective (CEG, ELG, SEG 3000)		Fall	
or			
CSI2372	Advanced Programming Concepts with C++	Fall	ITI1121, ITI1100
Elective*		Fall	
CSI4900	Honours Project	Winter	18 credits from CSI or SEG 3000 level
Elective (CSI 4000)		Winter	
Elective (CSI 4000)		Winter	
Elective*		Winter	
Free elective		Winter	

* 27 credits of non-computing, non-mathematics electives

For the *Extended French Stream* program, in addition to the above you will also have to fulfill the following requirements:

- The student must be admitted as an Anglophone in the program; the Admissions officers will ensure that the student is coming from an English high school and the student must pass a French proficiency test.
- The student must complete at least 42 credits in courses whose language of instruction is French. Note that bilingual courses such as research courses, do not count. However if the capstone project is solely completed in French, these credits can be applied against the 42 credits.
- A minimum of 6 credits (within the maximum of 42 credits) must be done in approved, non-technical courses such as Complementary studies courses or electives in the Humanities; it may also include courses within the Faculty of Engineering related to professional development, management and communication.
- 12 credits (within the minimum number of 42 credits) must be done in required first year courses, another 12 credits must be done in required second year courses within the program of study, and another 12 credits must be done in required third year courses within the program of study.
- Students must pass FLS3500. This test ensures that the immersion graduates are indeed fluently bilingual.