

## Course List Minor in Computer Science

This program is designed to be combined with a major or honors with specialization in a discipline other than science.

### **List of mandatory courses (30 credits)**

		<b><u>Session</u></b>	<b><u>Prerequisite(s)</u></b>
CSI2110	Data Structures and Algorithms	Fall	ITI1121, MAT1348
CSI2120	Programming Paradigms	Winter	CSI2110
ITI1100	Digital Systems I	Winter	
ITI1120	Introduction to Computing I	Fall/Winter	
ITI1121	Introduction to Computing II	Winter	ITI1120
MAT1348	Discrete Mathematics for Computing	Winter	MAT1318, Ontario 4U Advanced Functions (MHF4U) or equivalent
6 optional credits from the list <sup>1</sup>		Fall/Winter	
6 optional credits in CSI or SEG 3000 level from the list <sup>1</sup>		Fall/Winter	

#### *Note(s)*

<sup>1</sup> Suggested sequence of optional courses per field of interest. Note that some courses require prerequisites which are not part of the specific program requirements. Not all 4000 level courses are offered every year.

### **List of optional courses**

		<b><u>Session</u></b>	<b><u>Prerequisite(s)</u></b>
<b>Developing software for the visual arts:</b>			
MAT1341	Introduction to Linear Algebra	Fall/Winter	MAT1339 or Ontario 4U Calculus and Vectors (MCV4U), or an equivalent
CSI2101	Discrete Structures	Winter	MAT1348
CSI3105	Design and Analysis of Algorithms I	Fall	CSI2110, CSI2101 or for honors mathematics students: CSI2110, (MAT2141 or MAT2143)
CSI4130	Computer Graphics	Winter	CSI3105, MAT1341
<b>Analysis and design in information systems:</b>			
CSI2132	Databases I	Winter	CSI2110
CSI3130	Databases II	Fall	CSI2132
SEG2105	Introduction to Software Engineering	Fall	ITI1121
SEG3101	Software Requirements Analysis	Fall	SEG2105
<b>Web-based systems and Web design:</b>			
CSI2132	Databases I	Winter	CSI2110
CSI3140	WWW Structures, Techniques and Standards	Winter	CSI2110, CSI2132
SEG2105	Introduction to Software Engineering	Fall	ITI1121
SEG3125	Analysis and Design of User Interfaces	Winter	SEG2105

#### *Note(s)*

Suggested sequence for optional courses is per field of interest. Note that some courses require prerequisites which are not part of the specific program requirements. Not all 4000 level courses are offered every year.

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.