

2015-2016 Course Sequence

Major in Computer Science

1st YEAR (30 credits)

ITI1120 Introduction to Computing I
MAT1320 Calculus I

Session

Fall
Fall

or

MAT1330 Calculus for the Life Sciences I

Fall

MAT1341 Introduction to Linear Algebra

Fall

Opt 1/ Opt 2 *

Fall

Opt 1/ Opt 2 *

Fall

ITI1100 Digital Systems I

Winter

ITI1121 Introduction to Computing II

Winter

MAT1348 Discrete Mathematics for Computing

Winter

MAT1322 Calculus II

Winter

or

MAT1332 Calculus for the Life Sciences II

Winter

Opt 1/ Opt 2 *

Winter

Prerequisite(s)

One of MAT1339, Ontario 4U Calculus and Vectors (MCV4U) or an equivalent

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MAT1339 or Ontario 4U Calculus and Vectors (MCV4U), or an equivalent

ITI1120

MAT1320

MAT1330

* Opt 1: Minor from another Faculty + 30 credits electives

Opt 2: Second major from another Faculty

2nd YEAR (30 credits)

CSI2110 Data Structures and Algorithms

Fall

SEG2105 Introduction to Software Engineering

Fall

Opt 1/ Opt 2 *

Fall

Opt 1/ Opt 2 *

Fall

Opt 1/ Opt 2 *

Fall

CSI2101 Discrete Structures

Winter

CSI2120 Programming Paradigms

Winter

CSI2132 Databases I

Winter

CSI2911 Professional Practice in Computing

Winter

MAT2377 Probability and Statistics for Engineers

Winter

Prerequisite(s)

ITI1121, MAT1348

ITI1121

MAT1348

CSI2110

CSI2110

MAT1320 or MAT1330; corequisite:
MAT1322 or MAT1325 or MAT1332

* Opt 1: Minor from another Faculty + 30 credits electives

Opt 2: Second major from another Faculty

3rd YEAR (30 credits)

CSI3105 Design and Analysis of Algorithms I

Fall

Elective ¹

Fall

Elective ²

Fall

Opt 1/ Opt 2 *

Fall

Opt 1/ Opt 2 *

Fall

Elective ¹

Winter

Elective ²

Winter

Opt 1/ Opt 2 *

Winter

Opt 1/ Opt 2 *

Winter

Opt 1/ Opt 2 *

Winter

Prerequisite(s)

CSI2110, CSI2101 or for honors mathematics students:
CSI2110, (MAT2141 or MAT2143)

* Opt 1: Minor from another Faculty + 30 credits electives

* Opt 2: Second major from another Faculty

¹ 6 credits from {CSI3120, CSI3130, CSI3131, CSI3140}

² 9 credits from {CEG/CSI/SEG (3000 or over)}

4th YEAR (30 credits)**Session****Prerequisite(s)**Elective ²

Opt 1/ Opt 2 *

Opt 1/ Opt 2 *

Opt 1/ Opt 2 *

Opt 1/ Opt 2 *

Opt 1/ Opt 2 *

Opt 1/ Opt 2 *

Opt 1/ Opt 2 *

Opt 1/ Opt 2 *

Opt 1/ Opt 2 *

Fall

Fall

Fall

Fall

Fall

Winter

Winter

Winter

Winter

Winter

* Opt 1: Minor from another Faculty + 30 credits electives

Opt 2: Second major from another Faculty

² 9 credits from {CEG/CSI/SEG (3000 or over)}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.