MAJOR IN COMPUTER SCIENCE

Computer science at the School of Electrical Engineering and Computer Science combines the study of computation and information processing fundamentals with their application in the world around us. Computer scientists build fast, reliable, scalable and secure software systems to organize and analyze information. The honours curriculum comprises advanced topics in databases, artificial intelligence, computer graphics, security, distributed computing and algorithm design, culminating in an honours project.

This program teaches graduates how to use their creative and innovative talents to conceive, design and implement software systems. The French Immersion Stream is now available to all students in the Computer Science program. Our degrees are very flexible and include options, minors and a major, which can be used to explore connections between computer science and many other fields of study.

This program is offered in English and in French.

Compulsory courses are offered in English and French.

Learn more about this program (https://www.uottawa.ca/faculty-engineering/undergraduate-studies/programs/computer-science/)

Program Requirements

The table below includes only the discipline-specific courses. Please refer to the Academic Regulations (https://www.uottawa.ca/about-us/policies-regulations/academic-regulations/b-2-program-studies/) for information on the Honours bachelor's with double major and the Honours bachelor's with major and minor.

Co-operative education is available when taken as part of an honours degree.

The French immersion stream is available when taken as part of an honours degree.

Requirements for this program have been modified. Please consult the 2025-2026 calendars (http://catalogue.uottawa.ca/en/archives/) for the previous requirements.

Compulsory First-Year Courses:		
ITI 1100	Digital Systems I	3 Units
ITI 1120	Introduction to Computing I	3 Units
ITI 1121	Introduction to Computing II	3 Units
3 course units from:		3 Units
MAT 1320	Calculus I	
MAT 1330	Calculus for the Life Sciences I	
3 course units from:		3 Units
MAT 1322	Calculus II	
MAT 1332	Calculus for the Life Sciences II	
MAT 1341	Introduction to Linear Algebra	3 Units
MAT 1348	Discrete Mathematics for Computing	3 Units
Other Required Courses:		
CSI 2101	Discrete Structures	3 Units
CSI 2110	Data Structures and Algorithms	3 Units
CSI 2120	Programming Paradigms	3 Units
CSI 2132	Databases I	3 Units
CSI 2911	Professional Practice in Computing	3 Units
CSI 3105	Design and Analysis of Algorithms I	3 Units
3 course units from:		3 Units
STA 2391	Probability and Statistics for Engineers	
or a statistics course required in another minor or major		
SEG 2105	Introduction to Software Engineering	3 Units
6 course units from: [1]		6 Units
CSI 3120	Programming Language Concepts	
CSI 3130	Databases II	
CSI 3131	Operating Systems	
CSI 3140	WWW Structures, Techniques and Standards	
9 additional course units in computer science (CSI), software engineering (SEG) and computer engineering (CEG) at the 3000 or 4000 level [2]		9 Units
Total:		**60 Units**

Note(s)

[1] To be considered for admission to graduate studies in Computer Science your course selection must include: CSI 3131.

[2] Six of these units may alternatively be science courses other than mathematics (MAT) at any level; this latter option is only available to students who would otherwise not be taking any science in their degree. CEG 2136 and CSI 2372 will be considered as 3000 level courses for the purpose of this rule. To be considered for admission to graduate studies in Computer Science, the choice of courses is constrained as follows: CEG 2136, CSI 3104 and one non-mathematics (MAT) science course or one computer science (CSI) course at the 4000 level.