

# COMPUTER SCIENCE (NON-THESIS) (M.SC.) (45 CREDITS)

**Offered by:** Computer Science (Faculty of Science)

**Degree:** Master of Science

**Program credit weight:** 45

## Program Description

The M.Sc. in Computer Science; Non-Thesis offers an in depth study of advanced topics in computer science, mainly through course-based work. The program includes the possibility to complete a short research project or to conduct an internship for practical experience.

**Note:** For information about Fall 2025 and Winter 2026 course offerings, please check back on May 8, 2025. Until then, the "Terms offered" field will appear blank for most courses while the class schedule is being finalized.

## Required Courses (2 credits)

Expand allContract all

| Course   | Title                       | Credits |
|----------|-----------------------------|---------|
| COMP 602 | Computer Science Seminar 1. | 1       |
| COMP 603 | Computer Science Seminar 2. | 1       |

## Complementary Courses (43 credits)

Choose either: project courses and course work; or internship and course work; or all course work.

### Research Project

0-15 credits from:

Expand allContract all

| Course   | Title               | Credits |
|----------|---------------------|---------|
| COMP 693 | Research Project 1. | 3       |
| COMP 694 | Research Project 2. | 6       |
| COMP 695 | Research Project 3. | 6       |

### Internship

0-15 credits from:

Expand allContract all

| Course   | Title                           | Credits |
|----------|---------------------------------|---------|
| COMP 689 | Internship in Computer Science. | 15      |

### Course Work

28-43 credits of lecture- or seminar-based COMP courses at the 500 level or higher.

The following courses outside of the School of Computer Science may count towards the complementary courses, subject to approval by an academic adviser.

Expand allContract all

| Course   | Title                                   | Credits |
|----------|-----------------------------------------|---------|
| ECSE 507 | Optimization and Optimal Control.       | 3       |
| ECSE 508 | Multi-Agent Systems.                    | 3       |
| ECSE 516 | Nonlinear and Hybrid Control Systems.   | 3       |
| ECSE 518 | Telecommunication Network Analysis.     | 3       |
| ECSE 523 | Speech Communications.                  | 3       |
| ECSE 526 | Artificial Intelligence.                | 3       |
| ECSE 539 | Advanced Software Language Engineering. | 4       |
| ECSE 542 | Human Computer Interaction.             | 4       |
| ECSE 546 | Advanced Image Synthesis.               | 4       |
| ECSE 551 | Machine Learning for Engineers.         | 4       |
| ECSE 552 | Deep Learning.                          | 4       |
| ECSE 556 | Machine Learning in Network Biology.    | 4       |
| ECSE 570 | Automatic Speech Recognition.           | 3       |
| ECSE 626 | Statistical Computer Vision.            | 4       |
| MATH 523 | Generalized Linear Models.              | 4       |
| MATH 524 | Nonparametric Statistics.               | 4       |
| MATH 533 | Regression and Analysis of Variance.    | 4       |
| MATH 559 | Bayesian Theory and Methods.            | 4       |
| MATH 563 | Honours Convex Optimization .           | 4       |
| MATH 578 | Numerical Analysis 1.                   | 4       |
| MATH 680 | Computation Intensive Statistics.       | 4       |
| MECH 513 | Control Systems.                        | 3       |