

# COMPUTER SCIENCE, M.SC.

Computer Science

**Head:** Dr. Michael Domaratzki

**Associate Head:** and Grad Chair: Dr. Parimala Thulasiraman

**Program Advisor:** Lynne Hermiston

**Campus Address/General Office:** E2-445 EITC

**Telephone:** 204-474-8313

**Fax:** 204-474-7609

**Email Address:** hermisto@cs.umanitoba.ca

**Website:** sci.umanitoba.ca/cs/ (<https://sci.umanitoba.ca/cs/>)

**Academic Staff:** Please refer to Computer Science website (<https://sci.umanitoba.ca/cs/people/faculty-profile/>) for Faculty information.

## Computer Science Program Information

The department offers Master's and Doctoral programs at the graduate level, which cover many areas of computer science.

## Admission Information

### Admission to the Faculty of Graduate Studies

Application and Admission Procedures are found in the Academic Guide (<https://catalog.umanitoba.ca/graduate-studies/academic-guide/application-admission-registration-policies/>).

Admission requirements for Master's students are found in the Master's Degrees General Regulations ([https://catalog.umanitoba.ca/graduate-studies/academic-guide/masters-degrees-general-regulations/#Admission\\_FGSMasters](https://catalog.umanitoba.ca/graduate-studies/academic-guide/masters-degrees-general-regulations/#Admission_FGSMasters)) section of the Guide.

### Computer Science M.Sc. Admission Requirements

Students may be admitted to the Master's program if they hold an Honours Bachelor's degree in Computer Science and if they present a suitable selection of courses. Admission is not guaranteed and each application will be individually considered by the department's Graduate Studies Committee.

Students can also be admitted to the Master's program upon successful completion of their pre-Master's program.

### Pre-Master's Option

This unit offers a Pre-Master's program of study (<https://catalog.umanitoba.ca/graduate-studies/academic-guide/general-regulations-pre-masters/>). The Pre-Master's program of study is intended to bring a student's background up to the equivalent of the required 4-year degree in the major department/unit, and to provide the student with any necessary prerequisites for courses to be taken in the Master's program. Completing the Pre-Master's program does not guarantee acceptance to the Master's program.

## Application Information

Students should complete and submit their online application with supporting documentation by the date indicated on the Computer Science M.Sc. program of study ([https://umanitoba.ca/faculties/graduate\\_studies/admissions/programs/computer\\_science.html](https://umanitoba.ca/faculties/graduate_studies/admissions/programs/computer_science.html)) page.

## Degree Requirements

**Thesis Option:** Students must complete 15 credit hours of coursework and a thesis. All credit hours must be at the 7000 level and must include the 3 credit hour Research Methodologies course.

**Coursework Option:** A total of 24 credit hours of coursework is required at the 7000 or 4000 level. At least 18 credit hours of this total must be at the 7000 level with at least 6 credit hours from each Major area.

**Co-op Option:** A co-op option exists within the coursework program, which requires a minimum of two and a maximum of three work terms deemed by the department to be of value in terms of experience in Computer Science at the Master's level. Students adding this option must take, in addition to the requirements above, a pass/fail zero-credit hour course at the 7000 level corresponding to each work term (COMP 7600/COMP 7800/COMP 7900). **Not currently accepting students.**

Students must consult with their departmental advisor prior to deciding on courses. Listed courses will not all be offered in any one particular year.

**Expected Time to Graduate:** 2 years

### Progression Chart

Course	Title	Hours
<b>Year 1</b>		
GRAD 7300	Research Integrity Tutorial	0
GRAD 7500	Academic Integrity Tutorial	0
COMP 7210	Research Methodologies	3
COMP 7XXX	Computer Science Courses <sup>1</sup>	9
COURSE XXXX	GRAD/Approved Course <sup>2</sup>	3
<b>Hours</b>		<b>15</b>
<b>Year 2</b>		
GRAD 7000	Master's Thesis <sup>3</sup>	0
<b>Hours</b>		<b>0</b>
<b>Total Hours</b>		<b>15</b>

<sup>1</sup> Including courses in at least two of the three areas (Theory, Applications, and Systems).

<sup>2</sup> Can be a graduate course in Computer Science or an approved course from a different department.

<sup>3</sup> Every thesis M.Sc. student must, in consultation with his or her advisor, write and submit a formal thesis proposal during the student's first twelve months in the M.Sc. program.

#### Note:

- The advisory committee must be appointed within eight months of the start of the student's program.

## Registration Information

Students should familiarize themselves with the Faculty of Graduate Studies 'GRAD' courses applicable to their program (<https://catalog.umanitoba.ca/graduate-studies/registration-information/>). If you have questions about which GRAD course(s) to register in, please consult your home department/unit.

All students must consult with their advisor prior to registration and hand in a completed registration form for approval to the departmental general

office. Any changes, after the initial registration, must also be approved by the advisor.

A listing of available courses can be picked up at the departmental general office. Courses are subject to cancellation if there is insufficient enrolment.

## Regulations

Students must meet the requirements as outlined in both Supplementary Regulation and BFAR documents as approved by Senate.

### Supplementary Regulations

Individual units may require specific requirements above and beyond those of the Faculty of Graduate Studies, and students should consult unit supplementary regulations (<https://umanitoba.ca/graduate-studies/supplementary-regulations/>) for these specific regulations.

### Bona Fide Academic Requirements (BFAR)

Bona Fide Academic Requirements (BFAR) (<https://catalog.umanitoba.ca/graduate-studies/academic-guide/academic-performance-general/#BFAR>) represent the core academic requirements a graduate student must acquire in order to gain, and demonstrate acquisition of, essential knowledge and skills.

All students must successfully complete:

- GRAD 7300 prior to applying to any ethics boards which are appropriate to the student's research or within the student's first year, whichever comes first; and
- GRAD 7500 within the first term of registration;

unless these courses have been completed previously, as per Mandatory Academic Integrity Course (<https://catalog.umanitoba.ca/graduate-studies/academic-guide/academic-performance-general/#GRAD7500>) and Mandatory Research Integrity Online Course (<https://catalog.umanitoba.ca/graduate-studies/academic-guide/academic-performance-general/#GRAD7300>).

Students must also meet additional BFAR that may be specified for their program.

### General Regulations

All students must:

- maintain a minimum degree grade point average of 3.0 with no grade below C+,
- meet the minimum and not exceed the maximum course requirements, and
- meet the minimum and not exceed the maximum time requirements (in terms of time in program and lapse or expiration of credit of courses).