

# Handbook for Graduate Students



Brock University  
Department of Computer Science

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## 1 Introduction

Welcome to the Department of Computer Science at Brock University. We hope that you will have a stimulating and enjoyable experience as a graduate student.

This handbook is intended to be an additional resource to new students that will hopefully make the transition to our graduate program easier. It is a summary of the most important information and advice relevant to graduate students. It is not intended to be a comprehensive guide to all aspects of your degree program. We urge you to become familiar with the current graduate calendar, which is the authoritative resource for all rules and regulations regarding graduate programs at Brock University. The current graduate calendar can be found here:

- [www.brocku.ca/webcal/](http://www.brocku.ca/webcal/)

In addition to this handbook and the graduate calendar, other major resources that you should regularly explore are the following:

The Department of Computer Science graduate web site:

- [www.cosc.brocku.ca/graduate](http://www.cosc.brocku.ca/graduate)

The Faculty of Graduate Studies:

- [www.brocku.ca/graduate-studies](http://www.brocku.ca/graduate-studies)

Brock University's Faculty Handbook:

- [www.brocku.ca/university-secretariat/facultyhandbook](http://www.brocku.ca/university-secretariat/facultyhandbook)

Brock University:

- [www.brocku.ca](http://www.brocku.ca)

Although a major goal of your graduate degree is to obtain advanced knowledge in computer science and experience in scientific research, we also hope that you enjoy the social aspects of your studies. The Graduate Students' Association at Brock is worth investigation. They organize social and recreational events, and also administer the health plan and bus pass for graduate students. Their web site is:

- [www.brocku.ca/gsa/](http://www.brocku.ca/gsa/)

Besides the many social opportunities offered at Brock University, you may find some of the following web sites useful for exploring the Niagara Peninsula and surrounding areas:

- City of St. Catharines: [www.stcatharines.ca/en/](http://www.stcatharines.ca/en/)
- City of Niagara Falls: [www.infoniagara.com/](http://www.infoniagara.com/)
- Niagara-on-the-Lake: [www.niagaraonthelake.com/](http://www.niagaraonthelake.com/)
- Toronto: [www.torontotourism.com](http://www.torontotourism.com)

## 2 Program Description

The Department of Computer Science offers a program leading to the Master of Science (M.Sc.) degree. The department offers thesis-option and project-option M.Sc. degrees. For those in the thesis-option, graduate research topics may be conducted in the broad areas of computational logic and algebra, evolutionary computation, computational intelligence, algorithms, parallelism, and combinatorics. The project-option M.Sc. permits a project to be pursued in these and other topics.

The thesis-option M.Sc. consists of one year of course work, followed by preparation of a thesis. Students normally take four half-credit courses in the first year. Courses are selected in consultation with their assigned supervisor. Every M.Sc. candidate must prepare and defend a thesis, which demonstrates a capacity for independent work of high scientific calibre. A supervisory graduate committee will guide the student in all aspects of her or his graduate program.

The project-option M.Sc. consists of a total of 4 terms (16 months) of work. Students must take six half-course credits in the first year, in consultation with their assigned supervisor. Every project-option M.Sc. student must pursue a project, under the direction of her or his supervisor. The project is an opportunity to use concepts in computer science towards solving an applied problem.

Part-time studies are also available.

## 3 Roadmap to the Department

### 3.1 Locale

The Department of Computer Science is located in J-block of the Mackenzie Chown Complex. This is on the far east side of the main campus, and near the intersection of Glenridge Avenue and St. David's road.

Department facilities are found in the following locations in J-block:

#### 1st floor

- graduate student offices
- D205 computer lab (next to the J-block)

#### 2nd floor

- department central office (J314)
- faculty lounge (J315)
- faculty and staff offices
- computer labs (J301, J310)
- hardware lab (J327)
- Seminar room (J328)

### 3.2 People

There are a number of people whom you will interact with during your M.Sc. studies.

#### a. Graduate program director

The graduate program director is responsible for the administration of the graduate program. He or she is available when you have specific issues regarding your master's program, for example, facilities, regulations, or funding issues.

#### b. Supervisor

Your supervisor is the single person with whom you will be working more closely than anyone else during the course of your studies. She or he will be your main source of guidance for all academic matters regarding your graduate program, including course selection, research funding, and degree progress. Most importantly, your supervisor will guide you on all aspects of your M.Sc. thesis research or project, including proposed research topic selection, research direction, thesis/report writing, and final thesis defence or project presentation.

#### c. Supervisory committee (Thesis-option)

You and your supervisor will decide upon the selection of two other faculty members to be on your supervisory committee (the third member is your supervisor). Normally the supervisory committee consists of Department of

Computer Science faculty members. However, in some circumstances, one member may be a faculty member from another department. The committee helps oversee the progress of your thesis, as well as offer advice when required. Also, they will participate in the final examination of your thesis.

d. Department chair

The chair is responsible for the smooth running of the department. Although the chair is not directly involved with the administration of the M.Sc. program, he or she is indeed interested in your success during your M.Sc. studies. The chair is available if you have general concerns or issues regarding your studies.

e. Administrative assistant: Ms Amber Cecchini (ext. 3513)

The administrative assistant is the guardian angel of all administrative matters. She can help you find correct forms to fill in for registration and TA funding, and advise you on whom to contact for bureaucratic matters.

f. Course coordinator: Ms Baoling Wood (ext. 4025)

Normally, graduate student funding involves a teaching assistantship component. The course coordinator is in charge of overseeing teaching assistant contracts and duties. Please see Baoling about TA duties, contracts, and related matters.

g. Systems administrator: Mr Cale Fairchild (ext. 3738)

Cale is responsible for the department's computer network and software resources. If you have questions about your PC, software installations, or networking issues, please talk to Cale.

h. Hardware maintenance: Mr David Bockus (ext. 3281)

Dave is in charge of hardware facilities. If you are having hardware issues, Dave may be able to assist you.

i. Computer science faculty (graduate instructors)

The department web site lists the current faculty members in the department, as well as a brief description of their research interests. You should also examine their personal web sites, for more details about their research activities. The list of faculty can be found here:

- [www.cosc.brocku.ca/graduate/degrees](http://www.cosc.brocku.ca/graduate/degrees)

## 4 Facilities

### 4.1 Access to computers

All full time graduate students get personal computers for their exclusive use. In addition, they have access to computers in labs. The department will provide user codes for students registered in the program. You must adhere to the departmental policy for computer use specified at

- [www.cosc.brocku.ca/about/policies/computer\\_use](http://www.cosc.brocku.ca/about/policies/computer_use)

at all times when using the departmental computing equipment. Because the machines are shared, you must leave the machine in a state such that another student may use it (no locking the screen, etc).

Students are given a printer quota for each registered course, including the M.Sc. thesis (COSC 5F90) or project (COSC 5F99). Additional quota can be purchased from Donna Phelps in the main office. All students are provided space on a shared network hard drive. This is accessible from Linux and from Windows, and is the “home directory” for the workstations. Please keep your disk usage to a minimum and delete any files you are no longer using. While everyone occasionally has resource-intensive tasks to carry out, try to keep other people’s needs in mind when using the shared resources of the department. Although system backups of data are regularly undertaken, it is your responsibility to back up your important files.

### 4.2 Software

The unauthorized copying of copyrighted software is illegal. Users should also realize that unauthorized copying of software by users can harm the entire University. If the unauthorized copying of software proliferates the University may also incur a legal liability. The department views software piracy seriously, and disciplinary measures will be undertaken if users are caught running pirated software on University machines.

### 4.3 Office space and entry

All full time graduate students get an office or office space in J Block for use during the first 2 years (thesis-option) or 16 months (project-option) of their studies. Part-time students and those on Leave of Absence are not entitled to office space. You will use your student id card to access the office and computer labs. Access can be arranged through Dave Bockus.

### 4.4 Bulletin board and mailbox

There is a bulletin board outside of the graduate student offices which is used to place notices relevant to graduate students. A shared mailbox for graduate students is located in the office of Administrative Assistant (J313). If you change your address please let the Administrative Assistant know, and fill in the Change of Personal Information form and send it to graduate studies office.

## 5 Regulations

### 5.1 Graduate calendar

The primary resource for all rules and regulations regarding your graduate degree is the graduate calendar. The current calendar is available online at

- [www.brocku.ca/webcal/](http://www.brocku.ca/webcal/)

You should carefully peruse the calendar, to become familiar with regulations pertaining to your studies. The graduate program director in the Department of Computer Science, your supervisor and staff in the graduate studies office, are more than willing to help you with any difficulties you might have in understanding the regulations.

You should pay particular attention to regulations regarding the timeframe of your degree, for example, deadlines for registration and thesis submission. Also be aware that deadlines will differ between full-time and part-time students. Being late for a particular deadline may incur additional tuition and other fees, and so it is important to be aware of impending deadlines.

### 5.2 Forms and other bureaucratic matters

Following your experience in applying for your M.Sc. program acceptance, you will need to fill in many forms during the course of your M.Sc. studies. Most forms will be available at the Faculty of Graduate Studies web site:

- [www.brocku.ca/graduate-studies/current-students/student-forms](http://www.brocku.ca/graduate-studies/current-students/student-forms)

Other forms will be available in the Department of Computer Science main office. Such forms may include teaching assistantship contracts, which must be signed at the beginning of each teaching term during which you perform TA duties. Grant agencies such as NSERC and others may have other forms that you will need to fill in during the duration of your studies.

### 5.3 Registration

Registration procedures and policies can be found here:

- [www.brocku.ca/graduate-studies/current-students/Registration](http://www.brocku.ca/graduate-studies/current-students/Registration)

Be sure that you are registered as a student during every term of your studies in the program, and that your fees are paid by the set deadlines. After the first two terms of course work you will normally register for the thesis course **COSC 5F90**. Full information about the registration, changes of courses, withdrawals, etc. is described in the graduate calendar. Students who fail to register for any term, and who have not applied for **inactive status** or been granted a **leave of absence**, are considered to have withdrawn from their program of study. The student will be required to apply for reinstatement into the program. Reinstatement is not guaranteed.



#### **5.4 Full-time Status, Residency, and Vacations**

Full-time students are defined in the faculty handbook “as students whose main focus is graduate study for the purpose of obtaining a graduate degree” (Section 14.6.1 Faculty Handbook). It is essential that you pursue your studies as a full-time occupation and that you keep regular contact with your supervisor and the Graduate Program Director. In particular, this means that you live in the Niagara area, that you come to Brock at least once a week, and that any work outside of Brock has been approved. The details of these requirements are between your supervisor, the Graduate Program Director, and you, of course. Please notice that as a consequence of a violation of the residency requirements your status might be changed to part-time student by the Faculty of Graduate Studies, which has major consequences to funding, and if you are an international student, your visa status.

Similar regulations apply to your vacations. You are entitled to vacations. However, you must follow certain procedures so that vacations will not interfere with other duties or scheduled events. Before you book any vacation, including flight tickets, you must speak to your supervisor, the Graduate Program Director, and the Course Coordinator and/or the instructor of the courses you are supporting. Please be aware that there are certain events during your study that you cannot miss, for example, Thesis Proposal Workshop in the fall of Year 2 the Mapping the New Knowledges Conference in the Spring of Year 2, and (of course) your thesis defense or project presentation. Please note that you may have to miss a vacation that you have booked without consultation.

#### **5.5 TA Duties**

As part of your funding package you are entitled to a certain number of TA hours a year. The department makes the best effort to assign the duties corresponding to your knowledge, your capabilities, and other restrictions. On the other hand, it is your responsibility to ensure that the work is done in a timely manner and as well as possible. This means, in particular, that you keep contact to the instructor of the course, that you actively follow up on any details relating to the course, and that you are at meeting, labs etc on time. Please realize that you are paid to do this work and, therefore, you should put your best effort into it.

In exceptional cases, e.g. sickness, it might be necessary that another student takes over your duties. It is essential that you immediately inform the instructor and the course coordinator if you need a replacement; it is up to the instructor to approve any replacement.

#### **5.6 Departmental Seminars, Defenses, etc.**

All full-time M.Sc. students must attend all departmental seminars, thesis proposal seminars, defenses, and Graduate conference presentations. This is an essential means to broaden your knowledge about different areas of Computer Science, in general, and the research conducted in our department. In exceptional cases (e.g. illness, or conflict with your TA duties) you may not attend a specific event after getting approval by the Graduate Program Director before the event.

## 6 Thesis-option M.Sc. Program

The thesis-option Masters program consists of two terms of course work, followed by 4 terms of thesis preparation.

### 6.1 Graduate courses

A student may take four 5(alpha)00 half-credit graduate courses, or three such courses and one COSC 4(alpha)00 half credit undergraduate course with the approval of the supervisor and graduate program director. Information about available graduate courses is posted each term on the departmental web site. One of the graduate level courses may be a directed reading course (designated as COSC 5P75), under the discretion and direction of the student's supervisor. Students should submit an override form to the main office before registering for a COSC 4(alpha)00 course.

There is also the opportunity for students to take one 5(alpha)00 or above course from another discipline. Cross-discipline courses that are suitable as an elective for the project option include (but are not limited to): BIOL 5P06; GEOG 5P25; MATH 5P20, 5P21, 5P35, 5P36, 5P92; and MBAB 5P14, 5P17. The availability of these courses will vary in different years. Students should consider these and other suitable courses in consultation with the supervisor.

Students wishing to change their course registrations during the drop period may do so through the Web until the system closes for the session. After the system closes, students must submit the *Registration Course Add/Drop Form* to the Faculty of Graduate Studies by the withdrawal deadline date as published in the *Web Registration Guide* and the *Graduate Studies Calendar*. While it is a courtesy to inform the instructor of withdrawal from a course, this does not constitute official withdrawal from either a course or the University.

A student's performance in a course is evaluated using the same grading scale as for undergraduate students. It is fully specified in the graduate calendar (see "Academic regulations", under "Evaluation of student performance"). Graduate credit is only earned for courses in which a grade of A or B, i.e., a mark of 70+, is awarded. Therefore, to continue as a graduate student, a student must achieve and maintain satisfactory academic performance with a standing of at least a 70 B in graduate courses.

### 6.2 Graduate thesis

Each student will write a detailed thesis proposal, conduct an original independent research study, write a thesis and defend it publicly to the satisfaction of an examining committee.

The thesis course is designated as COSC 5F90. Since a student should always be registered every term (unless on leave of absence), they should register for 5F90 after their course requirements have been met. Every student is required to present a seminar on their background research and proposed thesis topic as part of the COSC 5F90 course. This is typically done in form of a workshop in the fall of Year 2 in which all graduate students participate.

## **Supervisory committee**

Before you present your proposal (see next section), you and your supervisor should decide upon the composition of your thesis supervisory committee. This consists of 2 other faculty members, one of whom must be from the Department of Computer Science. The committee has two functions. Firstly, they will follow the progress of your thesis research, and offer you helpful advice as you need it. You should schedule regular meetings with your committee to discuss the progress of your research. It is recommended that you meet with your supervisory committee at least once a term. Secondly, they will form part of your examination committee. The committee is formally established as part of the thesis proposal.

## **Thesis proposal**

With the help of your supervisor, you will have to prepare a thesis proposal which will be presented at the Thesis Proposal Workshop in the fall of Year 2. In very exceptional cases you might present your proposal at a different time.

Your proposal presentation should be between 20 to 25 minutes long, with an additional 5 minutes for questions. When the proposal is acceptable, a Thesis Approval Form should be signed by the student, the supervisor and the supervisory committee members.

The signed form, along with any additional material, is submitted to the graduate program director. Note that an approved proposal is an agreement between a student and their supervisory committee; if a student wishes to change their topic or research design substantially after receiving approval for their proposal, they may be required to resubmit a revised proposal for approval.

## **Thesis progress and time limits**

Typically, a full-time student works on their thesis research for 4 terms. Since the first two terms are devoted to course work, this will mean that the entire M.Sc. degree takes 6 terms, or 2 years. This is also the maximum duration of guaranteed funding. The maximum time allowed for a full-time student to complete the program is 3 years. Part-time students have a maximum duration of 5 years in which to complete the degree.

The main determination of satisfactory progress on your thesis will be the opinion of your supervisory and supervisory committee. You should have regular meetings with your supervisor throughout the duration of your thesis work (e.g. every week or two at the minimum). In regular intervals (see timeline in Appendix A), your supervisor will fill out a Progress Report form, describing the current state of your degree. This will include the courses you have taken, the state of the proposal, composition of the supervisory committee, and general progress on your thesis research. If the supervisor, the supervisory committee, or you find it necessary or helpful additional progress reports will be filed. The purpose of these forms is to document the current stage and progress. They are meant as a helpful tool for student and the supervisor, not as a threat.

The wide variety of research projects possible in computer science make it impossible to define one definitive time frame that should be followed by all M.Sc. students. However, you and your supervisory committee should be aware of the time limits specified above. Appendix A contains a general timeline that may be helpful.

### 6.3 M.Sc. Examination

#### Thesis format and submission

The formatting of your thesis is specified here:

- [www.brocku.ca/graduate-studies/current-students/thesis](http://www.brocku.ca/graduate-studies/current-students/thesis)

You should normally submit two hardcopies of your final pre-defence thesis submission (one for external, one for Dean), and send the PDF to your supervisor for distribution to the thesis committee. The Department of Computer Science adheres to a traditional format with single-sided pages. Coil binding for the hardcopies is recommended, and can be done in the main office.

#### Preparation for the examination

In evaluating students' theses, the program follows the regulations articulated in the section entitled "XIV. Thesis Defences" in the Brock University Graduate Calendar. The thesis will be evaluated, after a public oral examination, by the Examining Committee.

You should begin preparation for your examination at least six weeks in advance of the intended date. Make sure that you format your thesis according to the university requirements. Give the number of copies of your thesis as outlined above to the graduate program director together with the forms required for thesis submission. If everything is complete, it will be submitted to the Associate Dean of Graduate Studies in the Faculty of Mathematics and Science.

The external examiner will submit a report about the thesis prior to the defence. You and the supervisory committee will see the report soon after receipt from the examiner. The report will indicate whether the thesis is ready for defence, or is not ready. If it is not ready, the student must address the concerns and resubmit it, within a reasonable time.

#### Examination committee

The examination committee consists of the committee chair (Associate Dean of Graduate Studies in the Faculty of Mathematics and Science or delegate), external examiner (if present), thesis supervisor, and two departmental representatives, who are normally members of the student's supervisory committee.

#### Format of the exam

- Exam chair introduces committee and candidate, and explains the format of the defence.
- The candidate presents a research seminar, which is between 30 to 40 minutes in duration.
- The floor is open to questions from the audience.

- A short break follows.
- The examination committee asks questions of the candidate. The external examiner asks questions first, followed by others on the committee.
- The entire examination period will be limited to two hours.
- When the committee is satisfied with the questioning, the Chair requests that the candidate leave the room. The committee then deliberates on the outcome of the examination *in camera*.
- The candidate will be called back in, and informed of the decision.

### **Possible decisions of the examining committee**

The thesis does not receive a numerical grade. The options open to the examining committee are Pass or Fail.

All members of the examining committee will vote on the outcome of the examination, for a total of 5 votes. The possible outcomes are:

**Pass** – the external examiner and at least 2 other members vote to pass

**Fail** – the external examiner and at least 2 other members vote to fail

The examining committee has the following options:

- Thesis satisfactory and accepted as submitted
- Thesis accepted after minor corrections or modifications
- Thesis accepted conditionally upon completion of major modifications
- Thesis unsatisfactory and not acceptable.

Students are given between two to four weeks to complete minor revisions, which are to be approved by the graduate supervisor. Four to twelve weeks are given to complete major revisions, which are to be approved by the graduate supervisor and the chair of the defence.

If revisions are necessary, the committee will specify the areas for revision and the date by which the revised, typed thesis is to be returned (to the graduate program director). In the instance of a failed defence, you may, at the discretion of the Examining Committee, be permitted a second and final thesis submission and defence. This will be scheduled for no later than one calendar year after the original presentation and defence. In the preparation of the thesis for resubmission, you will be guided by the written criticisms of members of the Examining Committee.

## **6.4 Final thesis submission**

After your revised thesis has been approved you will submit your thesis electronically. You should follow the steps outlined at

- [www.brocku.ca/graduate-studies/current-students/thesis/e-thesis-submission](http://www.brocku.ca/graduate-studies/current-students/thesis/e-thesis-submission)

You will need a pdf version of your thesis, the abstract as regular text, and additional information such as keywords, student number, etc. The web page for submission is

- [dr.library.brocku.ca/](http://dr.library.brocku.ca/)

When you log into the above library page with your Brock portal userid and password, a submission link will appear. Follow the instructions on those pages.

Notice again that you need approval from your supervisor, and/or the external reviewer, and/or the supervisory committee before submitting your thesis. After the electronic submission you must send the required forms (see web page above) to the office of the Associate Dean of Graduate Studies of the Faculty of Mathematics and Science.

## 7 Project-option M.Sc. Program

The project-option Masters program consists of 2 terms of course work, followed by the preparation of a project.

### 7.1 Graduate courses

A student may take six 5(alpha)00 half-credit graduate courses, or five such courses and one COSC 4(alpha)00 half credit undergraduate course with the approval of the supervisor and graduate program director. Information about available graduate courses is posted each term on the departmental web site. One of the graduate level courses may be a directed reading course (designated as COSC 5P75), under the discretion and direction of the student's supervisor. Students should submit an override form to the main office before registering for a COSC 4(alpha)00 course.

There is also the opportunity for students to take one 5(alpha)00 or above course from another discipline. Cross-discipline courses that are suitable as an elective for the project option include (but are not limited to): BIOL 5P06; GEOG 5P25; MATH 5P20, 5P21, 5P35, 5P36, 5P92; and MBAB 5P14, 5P17. The availability of these courses will vary in different years. Students should consider these and other suitable courses in consultation with the supervisor.

Students wishing to change their course registrations during the drop period may do so through the Web until the system closes for the session. After the system closes, students must submit the *Registration Course Add/Drop Form* to the Faculty of Graduate Studies by the withdrawal deadline date as published in the *Web Registration Guide* and the *Graduate Studies Calendar*. While it is a courtesy to inform the instructor of withdrawal from a course, this does not constitute official withdrawal from either a course or the University.

A student's performance in a course is evaluated using the same grading scale as for undergraduate students. It is fully specified in the graduate calendar (see "Academic regulations", under "Evaluation of student performance"). Graduate credit is only earned for courses in which a grade of A or B, i.e., a mark of 70+, is awarded. Therefore, to continue as a graduate student, a student must achieve and maintain satisfactory academic performance with a standing of at least a 70 B in graduate courses.

### 7.2 Graduate project

Each student will pursue a graduate project under the direction of their assigned supervisor. The student and supervisor will first plan a project. This planning might during the COSC 5P75 Directed Reading course, should the student take that course with their supervisor. The topic of the project will be related to the supervisor's areas of expertise, and will involve some practical application of computer science topics to a practical problem. The project might involve the implementation of a software system, the preparation and completion of empirical experimentation, or a more theoretically-oriented application. The completion of the project will include a report, which will discuss all relevant aspects of the project. The supervisor will guide the student with respect to the project's requirements and final expected outcomes.

Projects will be assessed by a committee comprised of the supervisor and another faculty member. When a project is finished, the supervisor will organize a project presentation. This will be a short 20-30 minute seminar, during which the student will present her or his project publicly. The supervisor and examiner will be present. The result of the presentation will be determined by the examining committee, and will result in letter and numerical grades for the project.

### **7.3.Final project submission**

The formatting instructions for your final project report is given here:

<https://brocku.ca/graduate-studies/wp-content/uploads/sites/181/E-MRP-Format-Specifications-06-2015.pdf>

Other details on how to prepare and submit your project report can be found at:

<https://brocku.ca/graduate-studies/current-students/research-based-students/major-research-project/>

After your revised project report has been approved you will submit your report electronically to:

<https://dr.library.brocku.ca/handle/10464/4226>



## 8 Financial Support

### 8.1 Scholarships, Grants and Awards

You are encouraged to look into the graduate calendar and on the Faculty of Graduate Studies web site for information about available scholarships, grants, awards etc.

- [www.brocku.ca/graduate-studies/current-students/financial-support](http://www.brocku.ca/graduate-studies/current-students/financial-support)

The graduate program director forwards new information about scholarships via e-mail to all students as it arrives.

### Fellowships

Please see

- [www.brocku.ca/graduate-studies/current-students/financial-support/internal/funding-packages](http://www.brocku.ca/graduate-studies/current-students/financial-support/internal/funding-packages)

for information regarding the allocation and administration of graduate fellowships and international student fellowships. If you are coming to the end of the period for which fellowship funding was guaranteed and wish to apply for additional fellowship funding see

- [www.brocku.ca/graduate-studies/current-students/student-forms](http://www.brocku.ca/graduate-studies/current-students/student-forms)

for the “Request for Additional Graduate Fellowship Funding” form. This funding is given only in exceptional circumstances, for example, health reasons, unforeseen research delays, etc.

### Bursaries

Bursaries are monies that are awarded to students based on financial need. All graduate students are eligible to apply for a bursary. Applications are available from the forms link above in “Fellowships”. Please see

- [www.brocku.ca/graduate-studies/current-students/financial-support/internal/funding-packages#Graduate Studies Bursary](http://www.brocku.ca/graduate-studies/current-students/financial-support/internal/funding-packages#Graduate_Studies_Bursary)

for information on available bursaries. Please note that bursaries are not intended to be compensation for tuition and fees, and these are normal costs that all students should be expected to cover. Bursaries are also not appropriate for personal items such as automobile expenses, new laptops, and cell phone contracts.

### Graduate research assistantships (thesis-option M.Sc. only)

Full-time thesis-option M.Sc. students receive supplemental funding from their supervisors (currently \$5000 per year for 2 years).

## 8.2 Graduate teaching assistantships

The graduate teaching assistantship is arranged by the course coordinator, and can include teaching assistant, marker-grader, and/or lab demonstrator duties. The graduate teaching assistantship is employment and is therefore processed through the human resource contract system in accordance with the CUPE 4207 Collective Agreement. See [http://www.brocku.ca/webfm\\_send/17632](http://www.brocku.ca/webfm_send/17632) for details. Students are paid bi-weekly via direct bank deposit for the duration specified in the contract. Graduate student teaching assistantships are considered an integral component of graduate student training and experience for the majority of our graduate programs. This funding component is coordinated and determined by the graduate program.

You are expected to fulfill your TA duties in a responsible manner. You should communicate with the lecturer of the course on a regular basis. You should meet all marking deadlines, be present for required test and exam invigilation duties, and attend all lab and other duties according to the assigned schedule. You are not permitted to trade lab sessions or marking duties with other students without permission with the course lecturers prior approval.

## 8.3 Employment

Full-time graduate students working on campus should not exceed an average of 10 hours per week over the course of the academic term (12 weeks). On-campus employment contracts are the responsibility of the graduate program and the Human Resource department of the University.

Graduate students who wish to accept contracts for on campus work (e.g. TA hours) that are above 120 hours per term must first seek and obtain the approval of their supervisor and graduate program director. The completed Request for Approval of Extra On-Campus Employment Hours form ([see www.brocku.ca/graduate-studies/current-students/student-forms](http://www.brocku.ca/graduate-studies/current-students/student-forms)) is then submitted to the Faculty of Graduate Studies for Dean of Graduate Studies approval.

Full-time students may wish to obtain part-time work off-campus to help support themselves during their studies. Before seeking off-campus employment, you should discuss the matter with your supervisor beforehand. In the past, some students' off-campus employment was detrimental to their studies, and they did not complete their degrees.

Student visa regulations permit international students to work a limited number of hours off-campus (<http://www.cic.gc.ca/english/study/work-offcampus.asp>).

## 8.4 Final stage status and tuition fee reduction

If a full-time student is in the final stages of their thesis/project work, he or she can receive a substantial reduction in tuition for the final term if they submit a first draft of their thesis/project by a set deadline (see the Office Graduate Studies for the exact date). This reduction is available only if the student has completed five (four for project students) terms of continuous registration. It is expected that the student will finish

his/her degree during the term for which the final stage status is granted. In order to obtain final stage status a student has to submit a draft of his/her thesis (project report). The program defines “first draft” as a document that meets the general length requirements for the thesis (project report) and includes all the major components of the final document (e.g., introduction, chapters, conclusion, bibliography). It is not a final version of the thesis, however, but it cannot have additional chapters/sections. After submitting the draft the final stage status has to be approved by the supervisor and graduate program director. If they approve the application, a **Final Stage Form** has to be completed and sent to the Faculty of Graduate Studies (see <https://brocku.ca/graduate-studies/wp-content/uploads/sites/181/2022-Mar-Final-Stage-Status-Form.pdf>).

Notice that the final stage status is granted only once. If you do not finish during the corresponding term, your fees will go back up.

## 9 Other Advice

### 9.1 Your thesis/project and your supervisor

It is the department's goal that all graduate students have a fulfilling and stimulating experience during their studies. The highlight of your graduate experience is the thesis research or graduate project that you undertake with your supervisor. Normally, it is expected that your area of research is pretty well agreed upon before you were admitted to the program. For example, the selection of your supervisor was determined by personal communication with her or him, and your statement of research interests helped determine the suitable match between you and your supervisor. This does not mean that a precise research topic is necessarily set in stone. However, a student should not expect to make a drastic change in a research area, and especially to one that is outside the expertise and interests of their supervisor. Without a faculty member willing to supervise a particular topic, the student will be unable to proceed. Funding may also be reduced.

Be aware that your supervisor has committed both time and (in the case of thesis students) research grant funding towards your graduate studies. Further details about supervision are in the faculty handbook:

- [www.brocku.ca/university-secretariat/facultyhandbook/section3#\\_genIndex93](http://www.brocku.ca/university-secretariat/facultyhandbook/section3#_genIndex93)

### 9.2 Intellectual property and co-authorship of papers

Please be familiar with Brock's policy on intellectual property. Information can be found at the web site of the Office of Research Services (see "Knowledge & Technology Transfer" section at [www.brocku.ca/researchservices/](http://www.brocku.ca/researchservices/)).

In particular, during the course of your studies, many students will be encouraged to write papers and posters on their research, and submit them to scholarly conferences and journals for publication. It is considered proper protocol to include your supervisor as a co-author on papers related to your thesis. The Brock policy mentioned above discusses additional situations, for example, when you are doing research as part of a larger laboratory research project.

Please openly discuss these issues with your supervisor.

### 9.3 Plagiarism and Citations

Please make yourself familiar with Brock's policies on plagiarism, which can be found in the graduate calendar, as well as

- [brocku.ca/academicintegrity/](http://brocku.ca/academicintegrity/)

With respect to plagiarism it is important to cite secondary literature appropriately. A failure in proper citing can be considered plagiarism and can result in expulsion from the

program. You should become familiar with appropriate citation styles and methods. You may want to consult the following web page:

- [tim.thorpeallen.net/Courses/Reference/Citations.html](http://tim.thorpeallen.net/Courses/Reference/Citations.html)

In addition, you should talk to your supervisor about this matter, in particular, if you are not sure about a specific situation. He or she will be able to assist, and provide additional sources for your reference.

Note that it is unusual in computer science papers and theses to need to include extensive quotations from other sources. Also be careful with using diagrams and figures from other sources, as copyright may be infringed if it isn't cited properly.

You should always do your own work in all course, project and thesis work, including assignments, course projects, and take-home tests. Do not use other programmer's (or fellow student's) code for programming assignments or projects, unless prior approval is given by the professor. The use of open-source code from online can be problematic as well – check with your professor beforehand!

In the event a student is suspected of engaging in academic dishonesty, professors will contact the Graduate Program Director and there will be an interview between Graduate Program Director and the student. During this interview students have the right to have an advisor present such as their academic advisor or Brock's Ombudsperson. Students have the right to decline to attend this interview but should note that the investigation of academic dishonesty will continue, and they will forfeit their right to defend against the claims. If the Graduate Program Director and the professor find the claims valid, they will be forwarded to the Dean's Office for adjudication. In comprehensive exams and the production of a thesis or dissertation, the department may recommend the student be removed from the program of study with a notation from the Dean appended to the student's record. Please note that an act of academic misconduct constitutes sufficient grounds for dismissal from the program.

University procedures covering academic misconduct can be found on the [Graduate Students - Academic Integrity](#) webpage and in the [Graduate Calendar](#).

## 10 Final Remarks

After reading this document and the graduate calendar, you probably feel overwhelmed with information. We invite you to clarify issues you may have by talking to your supervisor and the graduate director.

The following are some major points that are keeping in mind during your studies:

- You should be registered every term, unless special “leave of absence” status is applied for. Register for COSC 5F90/5F99 during terms in which you are not taking courses.
- If you are a full-time MSc student and you are receiving normal funding, then your tuition and other fees are deducted from the funding payments you receive. TA payments are paid separately during the terms you work.
- Although a student may certainly take vacation time (after consultation with the supervisor), full-time work during summer terms is expected. For a full-time student who commences studies in the autumn, the first summer is critical for background reading and thesis proposal preparation, and regular meetings with the supervisor should be scheduled. The thesis will be wrapped up and defended during the second summer.
- Thesis students need to take 4 half-courses to complete the course element of your degree. One of these courses may be an approved 4<sup>th</sup> year COSC course, and another may be a reading course with your supervisor. All courses should be selected in consultation with, and approval of, your supervisor.
- Project students need to take 6 half-courses. One of them may be a 4<sup>th</sup> year COSC course.
- You should strive to communicate with your supervisor on a regular basis, for example, once a week during the thesis research phase of your studies.
- Your supervisor will complete a “progress” form on a regular basis, which will be kept on file. You may request a copy of the completed form if you wish.
- Full-time thesis students are guaranteed funding for 6 terms (2 years) of their program, and project students are funded for 4 terms. Funding is always subject to satisfactory progress. Be aware that funding is should not be expected during subsequent terms beyond the normal duration of the degree.
- Brock’s regulation for remaining registered as a full-time graduate student is normally 56 days after the last day of the previous term (e.g. 56 days after Aug 31, for those who began in September). Full-time (part-time) students wanting to switch to part-time (full-time) status requires permission of the Dean of Graduate Studies.
- Office space is given for full-time students during their first 6 terms (thesis) or 4 terms (project). You will be asked to vacate your office space afterwards, in order for new students to be accommodated. If possible, temporary accommodations may be provided.

## Appendix A: Timeline for Thesis-option M.Sc.

The following is a typical schedule for completing a thesis-option M.Sc. degree program by a full-time student. The total duration of this timeline is 2 years (which is also the duration of funding). Note that the maximum time limit for a full-time student is 3 years, and a part-time student is 5 years. The Graduate Calendar lists a more exact schedule:

- [www.brocku.ca/webcal/current/graduate/sche.html](http://www.brocku.ca/webcal/current/graduate/sche.html)

### Year 1

Term 1:

1. Complete registration.
2. Get keys, room assignment, computer accounts, etc.
3. Plan course work with supervisor.
4. Take 2 courses.

Term 2:

1. Take 2 courses (complete course work)

Term 3:

1. Register for COSC 5F90.
2. Plan detailed research plan with supervisor.
3. Begin preliminary research activities.
4. Prepare for thesis proposal.
5. Plan supervisory committee with supervisor.
6. First Progress Report at the end of the term.

### Year 2

Term 4:

1. Register for COSC 5F90.
2. Present thesis proposal at the Thesis Proposal Workshop.
3. Supervisory committee is established.
4. Continue research.

Term 5:

1. Register for COSC 5F90.
2. Continue thesis research.
3. Present your work at the "Mapping the New Knowledge's" conference.
4. Submit first draft of thesis before deadline in order to qualify for final stage status (if applicable).
5. Second Progress Report at the end of the term.

Term 6:

1. Register for COSC 5F90.
2. Complete research.
3. Submit thesis.
4. Defend thesis.
5. Progress Report at the end of the term (if not defending thesis this term).

## Appendix B: Timeline for Project-option M.Sc.

The following is a typical schedule for completing a project-option M.Sc. degree program by a full-time student. The total duration of this timeline is 4 terms (16 months) (which is also the duration of funding). Note that the maximum time limit for a full-time student is 3 years, and a part-time student is 5 years. The Graduate Calendar lists a more exact schedule:

- [www.brocku.ca/webcal/current/graduate/sche.html](http://www.brocku.ca/webcal/current/graduate/sche.html)

### Year 1

Term 1:

1. Complete registration.
2. Get keys, room assignment, computer accounts, etc.
3. Plan course work with supervisor.
4. Take 3 courses.

Term 2:

1. Take 3 courses (complete course work)

Term 3:

1. Plan graduate project with supervisor.
2. Work on project.

### Year 2

Term 4:

1. Complete project.
2. Present project.