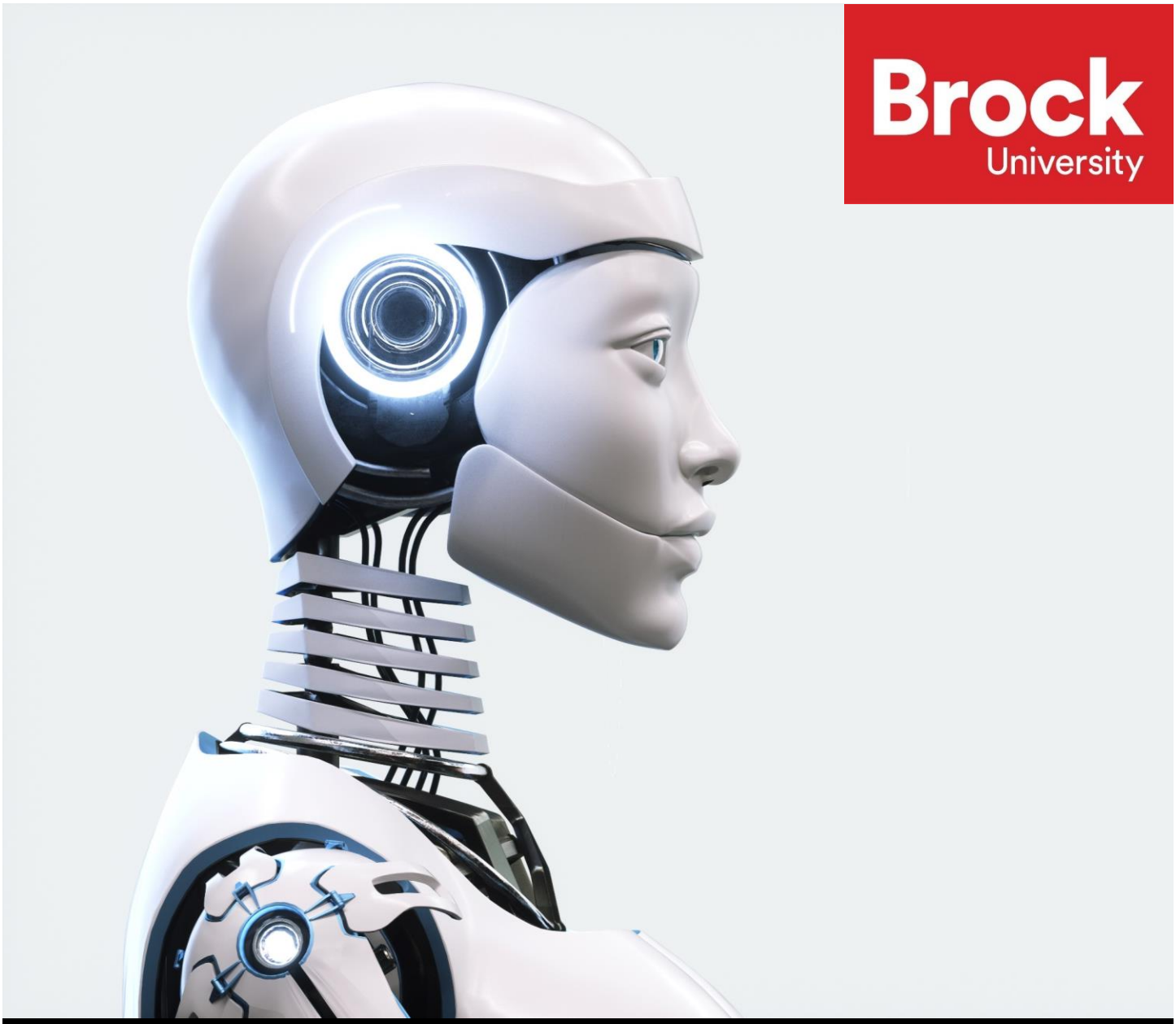

Program Handbook

PhD in Intelligent Systems and Data Science

Faculty of Mathematics & Science

2025

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About This Handbook

The content in this program handbook is accurate at the date of posting and is applicable for the current academic year. Program handbooks are updated annually, and students should ensure they are referring to the current version. Occasionally, changes to policy and program requirements do occur so students should also check with their supervisor, program chair or the Faculty of Graduate Studies on critical matters where they are unsure.

This program handbook should be read in conjunction with general policies and guidelines as outlined in the Brock University Graduate Calendar and the Brock Faculty Handbook.

1 WELCOME

Welcome to our PhD program in Intelligent Systems and Data Science (PhD ISDS), offered jointly by the Department of Computer Science and the Department of Mathematics and Statistics 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 for 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 other key services and resources at Brock, including the Faculty Handbook and the Graduate Calendar, which are the authoritative resources for rules and regulations regarding graduate programs at Brock University; the Faculty of Graduate Studies which oversees the administrative aspects of graduate study, from application through graduation; and the Graduate Students' Association which organizes social and recreational events, and also administers the health plan and bus pass for graduate students.

2 PROGRAM DESCRIPTION

2.1 Program Overview

The Department of Computer Science and the Department of Mathematics and Statistics offer a program leading to the PhD in Intelligent Systems and Data Science (PhD) degree. The program focuses on the complementary roles of intelligent systems and data science, and their role in solving complex real-world applications. Graduate research topics may be conducted in a number of broad areas, including artificial intelligence, smart systems, and data science. Please see the department links above for a listing of faculty and their specific research interests.

2.2 Program Objectives and Outcomes

The objectives of this joint program are to prepare students to become highly qualified scientists to tackle challenges in artificial intelligence and machine learning, integrated smart systems, modern software systems, statistical/mathematical modelling and analytics, and big data infrastructure. Graduates will proceed to research careers in academia, industry, government, and the community.

3 PROGRAM GOVERNANCE AND ADMINISTRATION

The PhD in Intelligent Systems and Data Science has several governance and administrative bodies that support students and faculty.

3.1 Program Governance

An overview of Brock University' governance structure can be found on the University Secretariat webpages. The following committees and units are responsible for varying aspects of the governance and administration of the ISDS PhD program.

Faculty of Graduate Studies

The Faculty of Graduate Studies works closely with Brock's six academic Faculties — Applied Health Sciences, Education, Humanities, Mathematics and Science, Social Sciences, and the Goodman School of Business — to:

- support the growth and development of the graduate studies sector;
- integrate graduate studies into the research, pedagogical, and outreach missions of the University;
- provide quality administrative service and support to current and future graduate students, supervisors, and graduate programs; and
- offer competitive funding packages to financially support students through their studies.

Academic regulations and University policies are outlined in the Graduate Calendar. All students are required to be aware of, and adhere to, these regulations and policies. Students who have maintained enrolment in each calendar year (May to April) may complete the degree program using the Academic Regulations section and program degree requirements operative in the year in which that program was entered, or any subsequent Calendar published while enrolled. Students who interrupt their studies for more than one calendar year (by not enrolling in at least 1 credit) become subject to the Calendar regulations in effect at the time of their re-registration.

For more information, visit the Faculty of Graduate Studies website.

Faculty of Mathematics and Science

The Faculty of Mathematics and Science at Brock encourages collaboration between its different programs.

Our courses and research opportunities are innovative and position our students for success during their studies and after they graduate. Through hands-on learning, we provide students the foundation to change the world, and in fact, many of them have.

Our enterprising students have been lead authors on research papers published in the world's most prestigious journals. They've received awards and funding for their work from renowned organizations. They're making discoveries that will shape our future.

Department of Computer Science

Faculty in the Department of Computer Science conduct research in the broad areas of computer science such as computational logic and algebra, formal methods, data mining, data

science, evolutionary computation, artificial intelligence, machine learning, natural language processing, algorithms, parallel and distributed computing, combinatorics, and networks and security.

Department of Mathematics and Statistics

Faculty in the Department of Mathematics and Statistics conduct research in the broad area of mathematics and statistics such as algebra and number theory, discrete mathematics and graph theory, dynamical systems, partial differential equations, functional analysis, mathematical music theory, mathematics education, mathematical physics, solitons and integrable systems, topology, evolutionary game theory, control theory, computational data science, design of experiments, optimal design for regression, sampling theory, parametric and nonparametric statistical inferences, multivariate statistics, survival analysis and risk models, robust methods, computational data science, predicting the spread of invasive species, probabilistic machine learning.

Brock University Graduate Council

Brock's Graduate Council normally meets monthly and is chaired by the Dean of the Faculty of Graduate Studies. The Council provides a forum to exchange and discuss ideas and information about graduate programs and to advise the Dean of Graduate Studies on all matters pertaining to graduate studies at Brock.

Senate Graduate Studies Committee (SGSC)

This Senate standing committee oversees and makes recommendations on all matters directly related to graduate academic programs and related policies, considering and pursuing policy initiatives to enhance the academic programs, well-being and reputation of the University. Meeting schedules and minutes are available from the University Secretariat's website.

Graduate Program Committee (GPC)

Graduate Programs at Brock are governed by a Graduate Program Committee (GPC), administered by a Graduate Program Director (GPD), and supported by a Graduate Program Administrative Coordinator (GPAC).

- **Graduate Program Committee (GPC):** The GPC has responsibility for recruitment and admissions, preparation of the Graduate Calendar submission, course offerings, teaching allocations, scholarship adjudication, student progress, community liaison, responding to student concerns, changes to the structure of the program and the selection of the Graduate Program Director. The Graduate Program Committee is normally composed of the Graduate Program Director (who serves as chair) and faculty members who teach in the program.

- **Graduate Program Director (GPD)**: The GPD is appointed by the Graduate Program Committee to oversee the graduate program. The GPD carries out all duties in regular consultation with the Graduate Program Committee. The Director has the support of an administrator/coordinator and receives an administrative course release. The usual term is three years.
- **Graduate Program Administrative Coordinator (GPAC):** The GPAC oversees the day-to-day operations of the program and provides administrative support to the Graduate Program Director.

3.2 Program Administration & Faculty

Administrative Contacts

> **Important**: All PhD in Intelligent Systems and Data Science inquiries should be directed to fmsgradoffice@brocku.ca.

Graduate Program Director (GPD)
Ke Qiu
kqiu@brocku.ca

Graduate Program Administrative Coordinator (GPAC)
Elena Genkin
fmsgradoffice@brocku.ca
905 688 5550 x3115

Faculty

Full Department of Computer Science and Department of Mathematics and Statistics faculty listings, along with profiles and research interests, can be found in the Departments' directories: Computer Science Faculty and Mathematics and Statistics Faculty.

4 ADMISSIONS

4.1 General Admissions Policy

The Brock University Faculty of Graduate Studies establishes regulations for admission, which specify the minimum entrance requirements. These requirements are designed to ensure that students entering a graduate program have both the capacity and preparation necessary to effectively undertake a program of study at the graduate level. However, possession of the minimum entrance requirements is not a guarantee of admission. Resource allocations play a significant role in the number of students that any graduate program may adequately accommodate. The University reserves the right to limit enrollment and to refuse admission to any candidate.

Brock University has a non-discriminatory policy to ensure against discrimination of applicants based on race, color, national or ethnic origin, creed, sex, or sexuality.

4.2 Minimum Admission Requirements

An overview of admissions criteria for the PhD ISDS can be found in the Graduate Calendar.

There are three ways in which students may be admitted: (i) An MSc in Computer Science, Mathematics, Statistics, or a closely related discipline with a minimum 80% overall average from an accredited institution. (ii) Students currently in the MSc program may apply to transfer into the PhD program after one year of study if they have completed the required number of courses in their program with an average of at least 80% and have shown significant research progress as determined by their supervisory committee and graduate program committee. (iii) In very exceptional cases, students may be admitted into the PhD program with a four-year Honours Bachelor's degree, or the equivalent, with an overall average of at least an 85%. These students must demonstrate high research potential adjudicated by the graduate program committee.

The Graduate Admissions Committee will review all applications and recommend admission for a limited number of suitable candidates.

Part-time study is available in exceptional cases only for students admitted through option (i) above.

For information on the admissions process, including application dates and required supporting documents, please visit the PhD in ISDS Program webpage.

4.3 Offer Letters and Acceptance

Assessment of academic background and eligibility for admission to the program is the responsibility of the ISDS Graduate Program Committee. Recommendations for acceptance of applicants are made by the Graduate Program Committee to the Brock University Faculty of Graduate Studies. The official letter of acceptance and offer of admission will be issued by Brock University's Dean of Graduate Studies.

Applicants who are admitted, pending receipt of final transcripts, must submit an official copy of their final transcripts to Brock University's Faculty of Graduate Studies prior to registration.

Applicants receiving an offer of admission to the ISDS program in the Faculty of Mathematics and Science must normally accept that offer within three weeks from the date of issue. Failure to do so may result in the offer being withdrawn.

Students accepted for admission to the ISDS program in the Faculty of Mathematics and Science must commence their program of study on the date specified in their letter of acceptance. If circumstances prevent a student from starting study on the specified date, the University can rescind the original offer, and the applicant may be required to submit a new application.

5 FEES & FUNDING

5.1 Fees

The fee structure of degree programs offered through the Faculty of Mathematics and Science are as outlined by Brock University and the Faculty of Graduate Studies. Students should consult the Graduate Calendar, the Graduate Tuition and Fees webpage, and the information provided in their offer letter for the most current fee scale.

5.2 Funding and Financial Assistance

Many students require financial assistance to pursue their studies.

- Check your eligibility to apply for loans through the Ontario Student Assistance Program (OSAP). Additional information is also available on Brock's OSAP webpages.
- Students in the Faculty of Mathematics and Science are eligible for a variety of scholarships, bursaries, and awards administered by Brock University.
- **Brock internal funding support packages** are available to eligible full-time PhD students. Personalized funding packages details are normally included as part of your offer of admission and can differ from student to student. Funding sources may include scholarships, Research Fellowships, Graduate Fellowships, and Graduate Assistantships (employment income earned through teaching assistant or research assistant positions).
- **External funding** is generally secured by students through an application for grants and fellowships offered by provincial or federal governments, foundations or other agencies. These applications may be accepted prior to a student beginning their studies, or during their graduate studies.
- A listing of available awards may be obtained by consulting the Faculty of Graduate Studies' Funding Information and Awards and Scholarships webpages.

6 SUPERVISION & COMMITTEES

The Graduate Program Director (GPD) is responsible for the administration of the graduate program. He or she is available when you have specific issues regarding your PhD program, for example, facilities, regulations, or funding issues.

6.1 PhD Supervisor

All PhD students must have a supervisor. Your supervisor is the person with whom you will be working closely. She or he will be your main source of guidance regarding your graduate program, including course selection, research funding, development and defence of your research proposal, degree progress, conduct of research, and the writing and defence of the thesis. Your supervisor will guide you on all aspects of your PhD thesis research.

6.2 Supervisory Committee

After the student has finished the required courses, the student and the 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 will consist of Department of Computer Science and/or Department of Mathematics and Statistics 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 your qualifying examination and the final examination of your thesis.

6.3 Meetings

In order for the student to make satisfactory and steady progress, it is necessary to have effective and regular meetings and consultation between the student and supervisor. The meetings between the student and supervisor take place during all stages of the program, including course work, research, writing and defence of the thesis, and could be joined by the supervisory committee members.

The student and supervisor should establish and maintain a regular schedule of meetings; however, the frequency of meetings at any given time depends on the stage and nature of the research project.

6.4 Monitoring Student Progress

The main determination of satisfactory progress on your thesis will be the opinion of your supervisor and supervisory committee. The supervisor, with the support of the supervisory committee, provides guidance and instruction regarding the student's research activities. In addition, the supervisor is the main contributor in the ongoing evaluation process during the research work of the student. The supervisor monitors the student's progress and performance on a regular basis. The progress of the student will be documented by a written progress report twice a year. 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.

7 DEGREE REQUIREMENTS

7.1 Overview

The PhD in ISDS is designed as a 4-year program involving a combination of coursework, a comprehensive (qualifying) exam, the conduct of an original research program, and the writing

and subsequent defence of a dissertation. The 'Academic Performance and Progress' section of this handbook describes the suggested timeframes for completion of degree milestones.

Students should consult with their supervisors when planning a program of study. The student's plan of study must be approved by the Graduate Program Director. Here are typical timelines.

		Option A Regular Entry	**Option B** Transfer from MSc Program	**Option C** Direct Entry with Bachelor's Degree
Year 0			Study in MSc. Program	
Year 1	Fall	2-3 half-credit courses	2-3 half-credit courses	3 half-credit courses
	Winter	2-3 half-credit courses	2-3 half-credit courses	3 half-credit courses
	Summer	0-1 half-credit course Preparation Comp. Exam Research work/thesis	0-1 half-credit course Preparation Comp. Exam Research work/thesis	2 half-credit courses Preparation Comp. Exam Research work/thesis
Year 2	Fall	Preparation Comp. Exam Research work/thesis	Preparation Comp. Exam Research work/thesis	Preparation Comp. Exam Research work/thesis
	Winter	Qualifying exam Research work/thesis	Qualifying exam Research work/thesis	Qualifying exam Research work/thesis
	Summer	Research work/thesis	Research work/thesis	Research work/thesis
Year 3		Research work/thesis	Research work/thesis	Research work/thesis
Year 4	Fall	Research work/thesis	Research work/thesis	Research work/thesis
	Winter	Research work/thesis	Research work/thesis	Research work/thesis
	Summer	Defence	Defence	Defence

Length of Study

For full-time students entering the Ph.D. program with options (i) and (iii) in 4.2, the program is normally a 12 term or four-year program. For M.Sc. students transferring into the Ph.D. program (option (ii)), the program is normally a 15 term or five-year program, which includes the time spent in the master's program. Full-time students must complete all degree requirements within 6 years from the date of first registration. Part-time students must complete all degree requirements within 8 years from the date of first registration.

7.2 Courses

7.2.1 Required Courses

All students must complete ISDS 7P75 and ISDS 7N01 (normally taken together in the same term) as well as ISDS 7F90.

7.2.2 Elective Courses

Students admitted through option (i) or (ii) (please see Section 4.2) must complete an additional four half-credit courses; students admitted through option (iii) must complete an additional six half-credit courses. Course selection is done in consultation with the supervisor. One half-credit graduate course can be taken from a different department related to applications of modeling with mathematics or statistics, or applied computing, with the approval of the supervisor and course instructor. All other courses must be COSC or MATH/STAT half-credit courses at the 5(alpha)00 level or above.

7.2.3 Course Evaluation

Students must meet the minimum academic performance criteria set out in the Brock University Graduate Calendar (see Academic Regulations and University Policies, Section X). Course evaluation information is also available in the Faculty Handbook (Section 3B, #10 Evaluation).

Courses employ a wide range of assessment methods. The most frequent methods are formal tests, quizzes, and written/programming assignments. These are traditional methods of assessment, usually involving solving computational, mathematical, and statistical problems in a controlled environment (tests and quizzes) or outside of the classroom (written assignments).

Graduate courses often use a term project, which involves independent research by the student. Depending upon the course, the project may involve implementing a system using some principles discussed in the course or undertaking empirical experimentation. Projects are usually assessed by the instructor by grading a written report, which often takes the form of a scientific paper.

In addition to tests, assignments, and projects, some kind of oral assessment is sometimes used. This may involve a formal presentation or seminar delivered by the student, or in mathematics and statistics, informal discussion at the blackboard. These assessment methods complement tests and written assignments. We find them very useful not only in evaluating communication skills, but also in determining students' facility with problem solving, abstraction and logical reasoning, as well as in evaluating the depth of their knowledge of the subject.

Following the Brock guidelines, the course outline of each course specifies the method of assessment, dates, and relative weights of evaluation items. Course outlines are made available to students in the first week of classes. A graduate student must achieve a grade of at least 70% in order to receive credit for the course. At the end of each course, students will normally have the opportunity to provide feedback on the course content and instructor by completing a

course evaluation. These course evaluations will follow the standard procedures, as outlined in the departments' procedures.

7.3 Comprehensive (Qualifying) Exam/Thesis Proposal

After having completed all course requirements, (except ISDS 7F90), and within the first two years of the program, all students must successfully complete a comprehensive (qualifying) examination.

7.3.1 Procedures

Prior to the exam, the student must submit a written proposal of research in the form of an NSERC PGS D grant application or, in the case of students planning a career in industry, a MITACS grant application or other industry appropriate funding source grant application. The student will be guided by the supervisor and the supervisory committee while preparing this application.

7.3.2 Format

The examination committee consists of the supervisory committee, and the GPD serves as Chair of the examination. The oral exam will be scheduled for a 2-hour duration. The examination will start with a 30-minute presentation by the student about his/her research, followed by two rounds of questions from the examination committee about this research.

7.3.3 Evaluation

The outcome of the examination is pass/fail. The examination can be repeated once within four months. Majority pass votes is required to make a "Pass" evaluation decision.

7.4 Thesis / Dissertation Defence

Before the thesis (ISDS 7F90) is submitted for defence, parts of the thesis have to be published in, or submitted to, a peer-reviewed international journal or conference. The supervisory committee will decide whether a thesis is ready for external review and oral defence. The examination committee is chaired by the Dean of Graduate Studies or designate, and consists of the supervisory committee, an internal examiner (from outside the graduate program but within Brock University), and an external examiner. The defence is open and will start with a presentation by the student about his/her research, followed by questions from the examination committee.

7.4.1 Procedures

Faculty Handbook Section 3B, #9.4 describes the general policies on thesis defences. Please see Appendix 1 for detailed instructions.

7.4.2 Evaluation and Possible Outcomes

Dissertation grades for doctoral programs shall be reported to the Faculty of Graduate Studies as either a Pass or Fail grade. A Passing grade must be further differentiated as one of:

Acceptable as is, Acceptable with minor revisions, Acceptable with major revisions. A failing grade will be awarded if two or more committee members find the thesis unacceptable or if the External Examiner does not approve the thesis. If a failing grade is awarded for a thesis, the student will be withdrawn from the program. For full information, please see the Brock University Graduate Calendar (see Academic Regulations and University Policies, Section X). Dissertation evaluation information is also available in the Faculty Handbook (Section 3B, #10 Evaluation).

7.5 Post-Defence Requirements

Following a successful dissertation defence, several additional steps must be completed in order for students to graduate.

7.5.1 Revisions

The committee may require dissertation revisions following the defence. These are mandatory and the revised 'final' document must be submitted by the date decided on at the defence (usually within three months of the defence). The approval form that is signed by the committee is only signed by the supervisor after the revisions have been submitted.

7.5.2 Required Forms

The following forms should be submitted to the Graduate Administrative Coordinator:

Mandatory:

- Library and Archives Canada Thesis Non-Exclusive License
- Copyright License Forms

Circumstantial:

- Title Change form
- Request to Restrict Circulation

All forms are available from the Faculty of Graduate Studies student forms webpage.

7.5.3 Submission to Brock Digital Repository

Upon completion of dissertation revisions, students must upload their final dissertation document to the Brock University Digital Repository.

Important: Students will not be approved to graduate by the Faculty of Graduate Studies until their dissertation is finalized in the digital repository.

The document should be in PDF format and saved using the following file naming convention: Brock_LastName_FirstName_Year.pdf.

8 ACADEMIC PERFORMANCE & PROGRESS

8.1 Academic Performance and Continuation

Graduate students must achieve and maintain minimum satisfactory academic performance to be eligible to continue in a graduate program. Graduate students must maintain a minimum cumulative average of at least a B-(70%) during each term of study. If a graduate student falls below the minimum cumulative average the student will be automatically placed on academic probation for the subsequent term by the Faculty of Graduate Studies. A probationary student must achieve the minimum cumulative average, normally during the probationary term, to be eligible to continue as a graduate student.

8.2 Residency Requirements & Recommended Completion Timelines

Broad PhD milestones based on standard completion timelines are as outlined in Section 7.1. Please note this is a suggested timeline only; not all students will progress through these stages at the same rate. Your individual progression timelines should be discussed with your supervisor.

For full-time students entering the Ph.D. program with options (i) and (iii), the program is normally a 12 term or four-year program. For M.Sc. students transferring into the Ph.D. program (option ii), the program is normally a 15 term or five-year program, which includes the time spent in the master's program. Full-time students must complete all degree requirements within 6 years from the date of first registration. Part-time students must complete all degree requirements within 8 years from the date of first registration.

8.3 Progress Reports

Graduate Program Committees will review the performance of their enrolled graduate students on a regular basis. Following the establishment of a supervisory committee, a student's performance must be reviewed and documented. Students will work with their supervisors to complete an annual Progress Report Form. Please see Section 6.4.

8.4 Final Stage Status

If a full-time student is in the final stages of his/her thesis work, he/she can receive a substantial reduction in tuition for the final term if the student submits a first draft of his/her thesis by a set deadline (see the Faculty of Graduate Studies' Important Dates page for details). This reduction is available only if the student has completed drafts of the thesis that requires no additional chapters/sections. 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 must submit a draft of his/her thesis. The program defines "first draft" as a document that meets the general length requirements for the thesis 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. 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 should be completed and sent to the Faculty of Graduate Studies (form available from the Faculty of Graduate Studies' Student Forms page.

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 ACADEMIC INTEGRITY, ACADEMIC MISCONDUCT, APPEALS

9.1 Academic Integrity

In accordance with the Brock University Academic Integrity Policy, all students are expected to display the highest standards of academic integrity. Academic integrity means upholding a strong personal and professional ethic within your own work, and that of your colleagues. In upholding the principles of academic integrity, graduate students are expected to demonstrate respect and acknowledgement of others' words and ideas when conducting research, writing, publishing, and teaching.

For more information, visit Brock's Academic Integrity webpages.

9.2 Academic Misconduct

Integrity is fundamental to the process of research and scholarship, and misconduct damages the entire academic enterprise. Academic dishonesty, while traditionally defined as plagiarism, also includes inappropriate collaboration with other students, data falsification, fabrication of results, and the unauthorized resubmission of previous work.

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**

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.

9.3 Appeals

Appeal types and procedures at the Graduate level are outlined in the Faculty Handbook as well as the Graduate Calendar.

Students who have concerns about a grade in a particular course should first discuss the issue with the instructor of the course in question. If the issue cannot be resolved, the student should refer the matter to the Graduate Program Committee through your Faculty / School's Associate Dean, Research and Graduate Studies. If the student is not satisfied with the decision of the Graduate Program Committee, the student may appeal to the Faculty / School Dean. If the student is not satisfied with the Faculty / School's Dean's decision, the student may appeal to the Dean of Graduate Studies. Lastly, if the student is not satisfied with the decision of the Dean of Graduate Studies, the Student may appeal to the University's Student Appeals Board. Dissatisfaction with a penalty will not be considered sufficient grounds for an appeal. For more information on appeals process and timing, see the Brock University Graduate Calendar and visit the Brock Ombudsperson website.

10 HEALTH, SAFETY & WELLNESS

The health and safety of individuals is to be a primary objective in every area of University operation. Every person utilizing University premises must comply with this policy and all related regulations, standards, programs, and procedures. Health, Safety and Wellness provides information, resources, tools, and support to assist each Brock community member in creating

and fostering a healthy, safe, and environmentally sustainable place to visit, study, live, and especially, work. Students should also be aware of Brock's Occupational Health & Safety Policy.

Students employed by the University are required under the Ontario Occupational Health and Safety Act to take the mandatory Health and Safety Awareness Training available via Brock's Health Safety and Wellness Toolbox on SharePoint (requires a Brock employee login).

Under the Accessibility for Ontarians with Disabilities Act (AODA) and Human Rights, students employed at Brock University are legally obliged to undertake mandatory online training. It can also be found on Isaak, Brock University's Sakai-based learning management system. Isaak/Sakai uses the same account and password as the my.Brocku.ca portal. Employees are required to print the page after selecting the "Submit for Grading" button following completion of the quizzes and provide it to their supervisor. Information about Student Accessibility Services (SAS) can also be found online.

Please review Brock's information on health, safety and wellness during the pandemic. At this time, students, staff, faculty and others visiting campus must be masked and may be asked to complete a self-screen survey for COVID-19 risk. Information on access to campus (and answers to other FAQs) can be found here.

11 STUDENT RESOURCES

There are many services and resources available to students across campus. Some of these are noted below. For a full list of services and supports available at Brock, please visit the University's A-Z listing at: https://brocku.ca/directory/a-z/.

Academic Policies

Academic policies for undergraduate and graduate students are outlined in the respective Brock University Calendars (visit https://brocku.ca/webcal/) and the Faculty Handbook (visit: https://brocku.ca/university-secretariat/faculty-handbook/).

Graduate Students Association

The Graduate Students' Association (GSA) is a student organization that represents the interests of all graduate students at Brock University: MBA, MEd, MAcc, MA, MS, MSc, MTL & all PhD students (approximately 1700 in total). For more information on the services they provide, visit: http://www.brocku.ca/gsa.

Student Wellness & Accessibility Centre

Staff at the Student Wellness & Accessibility Centre have extensive experience and a wealth of knowledge to help students develop the skills and strategies they need to reach their full potential at Brock, including support in crisis management, personal counselling, student health, and student accessibility. If support is needed, students are encouraged to contact student counselling services at 1-833-BROCK-33, or visit them in Schmon Tower ST 400. For more information, visit: https://brocku.ca/health-wellness-accessibility/.

Health, Safety & Wellness

Health, Safety and Wellness provides information, resources, tools, and support to assist each Brock community member in creating and fostering a healthy, safe, and environmentally sustainable place to visit, study, live, and especially, work. For more information, please visit: https://brocku.ca/human-resources/health-safety-and-wellness/.

James A. Gibson Library

The Library at Brock offers a variety of resources to students, including a study space and lockers for graduate students on the 6th floor. To see all the services provided by the library, visit: https://brocku.ca/library/.

Faculty of Graduate Studies

The Faculty of Graduate Studies (FGS) aims to help Brock graduate students to become well-rounded, ethical, and creative thinkers and researchers who will contribute to the betterment of society.

The FGS recognizes that alongside coursework and research, graduate school is an opportunity for personal and professional growth and development. Visit the Faculty of Graduate Studies website to learn more about the Professional Development opportunities available to Brock graduate students: https://brocku.ca/graduate-studies/student-development/.

The FGS also has oversight of graduate student admissions, funding, scholarships, student records, and orientation activities. For details, visit: https://brocku.ca/graduate-studies/.

Career Services

Graduate students have unique needs when it comes to planning their careers and finding work. Students may be headed towards a career in research or teaching, or preparing for a specific job in the private or not-for-profit sector. Whatever it may be, Career Services has a variety of resources and programming designed to help students figure out where they're going and how to get there. For information on the services and resources Career Services provides for students, visit: https://brocku.ca/ccee/career-education/campus/.

Brock International

Brock International offers in-person and virtual support services tailored specifically to international students, including immigration consulting, academic coaching, language support, transitioning to life in Canada and living in the Niagara region, and working as an international student. For more information on these services as well as a listing of events and workshops for international students, visit https://brocku.ca/international/.

Financial and Administrative Services

Financial and Administrative Services is the place to visit for questions regarding tuition, fees, accessing financial accounts, due dates, how to make payments, how to get refunds from withdrawn courses, and anything else related to student finances. For more information, visit: https://brocku.ca/safa/tuition-and-fees/overview/graduate/.

The Niagara Region and Beyond

In addition to the many social opportunities offered at Brock University, you may find some of the following websites useful for exploring the Niagara Peninsula and surrounding areas:

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

12 APPENDICES

Appendix 1, Doctoral Thesis Defence Procedures.

FACULTY OF GRADUATE STUDIES
1812 Sir Isaac Brock Way
St. Catharines, ON L2S 3A1
Tel: 905-688-5550
Fax: 905-688-0748
Website: http://www.brocku.ca/graduate-studies

FACULTY OF GRADUATE STUDIES
DOCTORAL THESIS DEFENSE PROCEDURES

The Chair makes welcoming remarks which includes:

- Introduction of himself/herself and role of Chair as an impartial guide to the Defense process.
- Identification that the PhD is the highest academic degree bestowed at Brock University and that this event is the culmination of a large amount of work and scholarly activity by the candidate, his/her supervisor, the supervisory committee and the faculty as a whole.
- Introduction of the candidate.
- Introduction of the examination committee in the order of:
  - The External Examiner
  - The Internal External Examiner
  - Faculty members external to the home graduate program
  - Faculty members from within the home graduate program
  - The Supervisor

The Chair announces the agenda, which is:

- The candidate will make a presentation on his/her thesis, highlighting the research problem/topic, the research approach, the findings and the implications of the research outcomes. This presentation will be 30-35 mins in length.
- First round of questioning occurs with the order of questioning following the order of introductions identified above. During the first round, it is recommended that each examiner ask questions for 15-20 mins.
- Second round of questioning (individual examiners may choose not to pursue a second round of questioning). The second round of questioning is typically brief with each examiner asking only one or two questions.
- Supplementary round of questioning; if necessary and time allowing.
- The questioning can then be open to the audience, time allowing.
- The question period (all rounds) should normally last no more than 1.5-2.0 hours. The time allotment for each examiner within each round will be determined by the Chair before the defense and will be defined largely by the number of examiners.
- The Chair will ensure that the External Examiner's questions take precedence.

- It is the responsibility of the Chair to ensure that the questioning takes place in an organized and fair manner. He/she should discourage a debate among examiners and ensure that an examiner does not interrupt/intervene in the questioning by another examiner.
- The candidate and audience will then be asked to leave the examination room while the examination committee deliberates. The candidate should not stay in the vicinity of the examination room.
- The examination committee deliberates and comes to a conclusion on the thesis examination. The examination committee will be assessing the acceptability of the thesis as a written document and the acceptability of the candidate's defence of the thesis. In addition to voting on the outcome, the committee must discuss any required revisions to the thesis document.
- The Chair will ask each examiner in turn (in the order identified during the introductions above) to make brief comments on their assessment of the thesis as a written document and the performance of the candidate in defending the thesis.
- The committee must then come to a consensus or majority vote in providing its recommendation according to Faculty Handbook regulations in section 3B 10.2 C, D, E, F and G.
- The candidate will be invited back into the room to hear the outcome of the examination process.