Brock University

Program Handbook

PhD in Biological Sciences

Faculty of Mathematics and Science

Last reviewed August 2026

TABLE OF CONTENTS

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, Graduate Program Director (GPD), or the Faculty of Graduate Studies and Postdoctoral Affairs (FGSPA) on critical matters where they are unsure.

This program handbook reflects general policies and guidelines from Brock University's Graduate Calendar and Faculty Handbook. The specific documents can be consulted for further details.

1 WELCOME

Welcome to graduate studies in the Department of Biological Sciences at Brock University. Our goal is to provide you the opportunities and resources you will need to achieve your goals. To support you, we have developed policies and procedures that will keep you on track throughout your studies. Use this handbook as a resource to guide you and to link to other resources at the university. Additional information about starting your graduate studies at Brock can be found on the New Student Welcome webpage, including details about course registration, Brightspace (Brock's Learning Management System), and housing options.

2 PROGRAM DESCRIPTION

2.1 Program Overview

Students in the biological sciences graduate programs are part of a dynamic, research-intensive environment where you will be supported by excellent facilities, state-of-the-art laboratory equipment for all fields of biological research, and outstanding mentorship.

2.2 Program Objectives

The PhD in Biological Sciences offers four separate specializations: Cell and Molecular Biology; Ecology and Evolution; Neurobiology and Physiology; and Plant Sciences (including Oenology and Viticulture). Within each specialization, you will receive field-specific training that supports your development into an independent research scientist. The program will help you to develop the critical thinking, analytical, and communication skills you need to succeed in your career.

2.3 Program Outcomes

The PhD in Biological Sciences is a research-based program culminating in a PhD thesis that you will write and defend. You will also gain at least one term of experience as a teaching assistant (TA), though it is typical for students to TA for eight terms during their degree.

3 PROGRAM GOVERNANCE AND ADMINISTRATION

The PhD in Biological Sciences is overseen by several governance and administrative bodies that support students and faculty. An overview of Brock University's governance structure can be found on the University Secretariat webpage. The following committees and units are responsible for aspects of the governance and administration of the PD in Biological Sciences program.

3.1 Faculty of Graduate Studies and Postdoctoral Affairs

The Faculty of Graduate Studies and Postdoctoral Affairs (FGSPA) 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:

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

For more information, visit the Faculty of Graduate Studies and Postdoctoral Affairs website, including the Contact Us page.

3.2 Program Governance

Faculty of Mathematics and Science

The Associate Dean of Research and Graduate Studies (Melanie Pilkington), within the Faculty of Mathematics and Science, oversees the graduate programs within the faculty.

Graduate Program Committee (GPC)

The **Graduate Program Director (GPD)** is appointed by the department committee to oversee the graduate program. The GPD carries out all duties in regular consultation with the Graduate Program Committee (GPC). The GPD typically serves a three-year term and shares the support of an administrator/coordinator for the FMS (see description of GPAC below). The GPD works with the GPC, which is composed of the GPD (who serves as chair) and all Department of Biological Sciences faculty members. There may also be a graduate student representative involved in this committee. GPD manages recruitment and admissions, preparation of the Graduate Calendar submission, scholarship adjudication, student progress, and responding to student concerns. The GPC manages changes to the structure of the program.

The **Graduate Program Administrative Coordinator (GPAC)** oversees the day-to-day operations of the program and provides administrative support to GPDs within the FMS. The GPAC is often the first point of contact for students with questions about the program.

3.3 Program Administration and Faculty

Important: All PhD in Biological Sciences inquiries should be directed to:

Graduate Program Director (GPD)
Jeff Stuart
jstuart@brocku.ca

Graduate Program Administrative Coordinator (GPAC)
Elena Genkin
egenkin@brocku.ca

A full faculty listing for the PhD Biological Sciences, along with profiles and research interests, can be found in the program's faculty directory.

3.4 Graduate Students' Association

The Graduate Students' Association (GSA) is a student organization that represents the interests of all graduate students enrolled in a diploma, master's or doctoral program at Brock. Upon course registration each term, a student becomes a member of the GSA and will gain access to all member benefits, including optional health and dental coverage, a transit pass, student clubs, and other supports and services.

4 ACADEMIC REGULATIONS AND UNIVERSITY POLICY

Academic regulations and University policies pertaining to graduate studies at Brock University are outlined in the Graduate Calendar (Academic Regulations page) and the Faculty Handbook (section 3.B). All students are required to be aware of, and adhere to, these regulations and policies. Some relevant sections have been included in this handbook below for reference.

The Graduate Calendar sets out the regulations, programs and courses for the academic year indicated. Students may follow the academic policies and program regulations set out in the calendar of the term in which they were first admitted to the program, or any subsequent calendar. Students whose studies have been interrupted for one or more years (by not enrolling in at least one course) become subject to the Calendar regulations in effect at the time of their re-registration.

Students can check their regulation and calendar year by accessing my.brocku.ca and visiting the Program Status page. For current course descriptions, restrictions, and prerequisites a student will refer to the current calendar and/or the course timetable.

5 STUDENT STATUS

Students are admitted to the University either as a full-time or part-time student and this status can only be changed for valid reasons with the permission of the GPD and the FGSPA.

Full-time graduate students are defined as students whose main focus is graduate study for the purpose of obtaining a graduate degree. Graduate study differs from undergraduate study in that it is, for most students, an activity that is highly concentrated, demanding and all-consuming. Full-time status is not solely dictated by the number of credits a student is enrolled in each term. Additional details can be found in the Graduate Calendar under Academic Regulations, II. Student Status.

5.1 Continuous Registration

Graduate students must maintain continuous registration in each successive term from the time of initial admission until degree requirements are complete. This includes registration in BIOL 7F90 each term. Students who fail to register for any term, and who have not been granted inactive status or a leave of absence, are considered to have withdrawn from their program of study. Additional details can be found in the Graduate Calendar under Academic Regulations, II. Student Status. Relevant forms can be found at https://brocku.ca/graduate-studies/student-resources/forms/.

6 FEES AND FUNDING

6.1 Fees

The fee structure of graduate programs is outlined by Brock University and the FGSPA. Students should consult the Graduate Tuition and Fees webpage and the information provided in their offer letter for the most up-to-date information.

6.2 Funding and Financial Assistance

There are many sources of funding that may be available to graduate students:

- Brock internal funding support packages are available to eligible full-time, research-based master's students. Details about your personalized funding package 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). Details are on FGSPA's Funding Information webpage.
- Students may be eligible for a variety of scholarships, bursaries, and awards administered by Brock University. A complete listing of available awards is available on FGSPA's Internal Scholarships and Awards and FGSPA Awards webpages.
- External scholarships for PhD Biology students include those funded by the Natural Science and Engineering Research Council (NSERC) of Canada and the Ontario Graduate Scholarship funded by the Government of Ontario. Students apply for these on their own, but guidance is available from supervisors, supervisory committee members, and the GPD. As of July 14, 2026, the NSERC CGS-M site is https://nserc-crsng.canada.ca/en/funding-opportunity/canada-graduate-research-scholarship-masters-program and the OGS site is https://osap.gov.on.ca/OSAPPortal/en/A-ZListofAid/PRDR019245.html. Please consult these websites for information about due dates. Scholarships from foundations or other agencies are also available. These applications may be accepted prior to a student beginning their studies, or during their graduate studies.
- Check your eligibility to apply for loans through the Ontario Student Assistance Program (OSAP). Additional information is also available on Brock's OSAP webpage.

6.3 Graduate Student Employment

Full-time graduate students must limit their paid University, and external, employment, including Graduate Teaching Assistantships and Research Assistantships. There is no restriction with respect to time spent in paid employment for part-time students. As of July 14, Christine Carpenter-Cleland is managing the assignment of TAships for Biological Sciences graduate students. Please contact Christine for more information.

Additional details can be found in the Graduate Calendar under Academic Regulations, II. Student Status. For full regulations regarding TAships, including duties and rates of pay, see the CUPE 4207 Collective Agreement.

7 SUPERVISION AND COMMITTEES

7.1 Supervisor

The supervisor will assist the student, often with consultation of the supervisory committee, with course selection, development and defence of the research proposal, progress through ethics reviews (if applicable), conduct of research, and writing and defence of the thesis and also encourage and support the dissemination of research findings.

7.2 Supervisory Committee Composition

All students are supervised by a thesis advisory committee, the members of which will provide guidance throughout the degree. Thesis committees usually consist of the student's research supervisor and two additional faculty members from the Department of Biological Sciences, one of whom will serve as Chair of the Committee. Exceptions to this structure are possible, including co-supervision and instances where a supervisor's primary appointment is outside of the Department of Biological Sciences. In the case of co-supervision, the committee will typically have four members: both co-supervisors and two additional members.

Thesis advisory committees will be chosen by the Graduate Program Director in consultation with the supervisor(s) and student, subject to agreement and availability of requested faculty. The Graduate Program Director will normally ensure that the following criteria are fulfilled:

1. There are 4 major research areas in the Department. At least one committee member other than the supervisor will be from a research specialization close to the student's.

2. Thesis advisory committees consist of the supervisor or co-supervisors plus two members of the Biological Sciences Graduate Program faculty.

3. Faculty members whose primary department is not Biological Sciences, but who are associate members of the Department of Biological Sciences, may supervise graduate students and may be members of thesis advisory committees.

4. Adjunct faculty members in Biological Sciences may co-supervise graduate students with faculty members from Biological Sciences and may be members of thesis advisory committees.

7.3 Meetings and Monitoring Research Progress

Students are responsible for convening their committees according to the following schedule:

1. First meeting (planning): in the first term of study

2. First progress meeting: end of second term or during third term of study

3. Subsequent progress meetings: as needed; minimally one per year.

Additional thesis advisory committee meetings must also be held to discuss major changes in research plans. However, students can consult with committee members outside of scheduled meetings as well. When scheduling your committee meeting, please communicate the duration of time required for the meeting to your committee members (typically 2 hours). Coordinate with the department administrative assistant(s) to reserve a room and communicate time and place to all committee members.

At each meeting, students should provide a brief presentation detailing their research plans and/or progress. The length of presentation will vary depending on progress through the degree. While 10-15 minutes may be sufficient for an initial planning meeting, an hour may be needed when presenting the entire thesis project toward the end of the degree. Use your discretion and discuss with your supervisor. Your presentations should always contain the following information:

1. Degree requirements completed to date. For course work, include grades. In general, include papers published, conference presentations given, and scholarships/awards won. Provide good insight into your activities. Bring attention to any remaining coursework or other degree-related activities.

2. Title of thesis

3. Project objectives/questions/hypothesis

4. Background literature

5. Methodology

6. Results from your research, which will include: samples of raw data, analysed / summarized data, statistical analyses

7. Discussion/Conclusions

8. Timeline for project objectives

*Note –your thesis supervisory committee members may not remember details of your project if they are meeting with you once a year (they will typically be on 10-20 such committees). Therefore, at each meeting, ensure you provide the relevant background and contextual information for your research to be understood.

All supervisory committee meetings must be documented using the Graduate Student Progress Report Form (available on the Biological Sciences web site). The outcome of the meeting will be summarized by the committee as Excellent, Satisfactory, or Unsatisfactory in each of several categories. Following each meeting, please send the completed form to the GPD and GPAC, along with the PowerPoint (or similar) slides from the presentation. Students should be aware that it is their responsibility to make sure committee meetings take place; however, if they find

that committee members are unavailable for extended periods of time this should be brought to the attention of the GPD.

*Note that the GPD has the right not to sign course registration forms for students who failed to have the required committee meetings without legitimate reasons.

Permission to Write the PhD Thesis

The student will consult with the PhD supervisory committee to determine at what point they have completed all of the research and analysis needed for their degree by convening a meeting for that purpose (Although the student may have already begun to write the thesis, and indeed may have published individual chapters, this permission is needed prior to completing the written thesis). At the successful conclusion of this meeting, the Progress Report Form will indicate that the student has collected sufficient data and completed sufficient analysis to proceed to writing the thesis. For guidelines on how to write the PhD thesis see section 8.3 below.

8 DEGREE REQUIREMENTS

8.1 Overview of Degree Requirements

The PhD in Biological Sciences program is a four-year program that includes course work and a research thesis. The thesis will be chosen in consultation with the student's Supervisor and supervisory committee. Students are expected to complete their course requirements within the first three terms of study and conclude all program requirements (including a thesis defence) within twelve academic terms.

The 'Academic Performance and Progress' section of this handbook (Section 9) describes the suggested timeframes for completion of degree milestones. Students should consult with their supervisor and supervisory committee when planning a program of study.

For a full list of graduate course offerings by subject area, please refer to the Courses tab within the navigation menu in the Graduate Calendar. For a full list of scheduled courses for the current academic year, please visit the Graduate Academic Timetable. Additional details about course registration can be found on FGSPA's Graduate Course Registration webpage.

8.2 Courses

8.2.1 Required Courses

Note that graduate credit is not given in courses where the final grade is less than 70%.

1. BIOL 7F90 – PhD Thesis. Students must enrol in BIOL 7F90 each term.

2. BIOL 7P95 – Research Seminar. Normally taken in the first September of the program (see BIOL 7P95 guidelines)

3. One half-credit number 5(alpha)00 or higher, and which must not be cross-listed with a 4(alpha)00 course.

Courses are chosen in consultation with the Supervisory Committee. The thesis supervisor is not permitted to be the instructor for all courses in a candidate's program. Also, when appropriate and with prior permission of the Supervisory Committee and GPD, courses offered outside the Department of Biological Sciences may be taken to fulfill course requirements.

Note that PhD students must fill in the course approval form each term to remain in good standing (and get paid!). The form must be filled in, signed by the supervisor, and then provided to the GPD and Graduate Program Coordinator.

Note that graduate credit is not given in courses where the final grade is less than 70%. Obtaining a failing grade (<70%) in a graduate course is sufficient grounds for dismissal from the program. Students should strive to achieve a minimum grade of 80% in graduate courses, as a high level of expertise is expected.

Note that, depending on their background, candidates may be required to take extra courses from either the graduate or undergraduate calendar in addition to those noted above. This decision is normally made at the time of admission and included in the offer letter. However, if critical deficiencies are identified during the completion of the program, students may be requested to address them via relevant coursework.

In addition to their coursework, to fulfill degree requirements students must participate in the running of undergraduate courses in the Department of Biological Sciences at Brock University as teaching assistants (TA) for a minimum of one term (for which a graduate teaching stipend will be received). Typically, however, full-time PhD candidates will TA each Fall and Winter term for the four-year duration of their program.

8.2.2 Student Evaluation

At the beginning of each course, course instructors must provide students with a course syllabus that outlines details about their evaluation, assignments required, as well as deadlines and associated penalties if applicable.

8.3 Predoctoral Exam

Enrolment in the Doctor of Philosophy program requires the successful completion of a predoctoral examination. The examination should take place after the second term but no later than the sixth term of study (term 3-4 is recommended; for MSc students who are transferring to PhD, the examination should be completed within three terms following the transfer). It is desirable but not mandatory that PhD students complete all course requirements before taking the predoctoral exam.

The predoctoral examination involves the independent development of a Natural Sciences and Engineering Research Council (NSERC) of Canada Discovery Grant. The detailed instructions for writing these grant proposals can be found on NSERC's website and are briefly summarized below. To proceed with the predoctoral examination, the PhD candidate must convene their supervisory committee. The PhD candidate must propose to their committee three possible topics. These topics should be different from their thesis topic but in a similar research area. If none of the proposed topics are accepted, the PhD candidate can try again. Once a suitable topic is agreed upon, the supervisory committee will advise the Graduate Program Director of their decision by submitting the Predoctoral Recommendation form to the GPD and GPAC.

The PhD candidate has 4-6 weeks from this date to complete the research proposal. The proposal will be submitted by email as a PDF to the GPD and GPAC, who will distribute to all examination committee members. The examination committee includes the supervisory committee plus two additional faculty members from the Department of Biological Sciences. Note that a majority of the committee members must be tenured faculty. One faculty member (not the supervisor) will be assigned to chair the exam. The chair is also an examiner and therefore votes on the outcome.

Evaluation of the Research Proposal

The examination will consist of two parts: the written proposal and an oral exam. The PhD candidate must pass the written proposal stage before advancing to the oral exam. The Examination Committee members will evaluate the written proposal within three weeks of receiving it and provide their written report with comments and a pass or fail grade to the GPD and GPAC. For the candidate to advance to the oral exam, four members of the examination committee must vote for the proposal to pass. A tentative time for the 3h oral exam will be scheduled by the GPAC at the time the written proposal is submitted. If the proposal fails, the oral exam will be rescheduled and the candidate will have two weeks to re-write and re-submit (note that there is only ONE opportunity to re-write). Otherwise, the oral exam will proceed, typically within a week of the GPD/GPAC receiving all committee votes, but contingent upon availability of examination committee members.

The oral exam may take up to three hours. To begin, the candidate will give a 10-minute oral presentation summarizing the proposed research. This is followed by rounds of questions from the committee (usually two rounds, but up to three). The order of questioning is typically: the two committee members who are not members of the supervisory committee, followed by the

two supervisory committee members, followed by the supervisor. At the conclusion of the exam, the candidate will be asked to leave the room so the committee can deliberate in camera.

The outcome of the oral exam is determined by 'pass or fail' votes by each committee member. Note that in the event of co-supervisors', their votes shall count as one vote. At least four 'pass' votes are required for the candidate to pass the exam.

Outcomes of the Oral Exam:

If the outcome is 'fail', the candidate cannot continue in the PhD program

If the outcome is 'pass', the candidate continues in the PhD program

An exception to the above is that, in the event a student who has transferred from the MSc program to PhD fails the exam, they will be given the opportunity to re-register in and complete the MSc.

The criteria used by examination committee members are as follows:

- Candidate has demonstrated a strong understanding of the research topic and can cite and describe key publications
- Candidate has demonstrated a strong grasp of research approaches and methods used in this field of study
- Candidate has written and oral communication skills that are sufficient to convey meaning accurately, completely, and succinctly
- Candidate has shown an ability to independently plan, carry out, and publish a research project

Content of the Predoctoral Research Proposal

The proposal will follow NSERC guidelines and must be **formatted as required for Discovery Grant Form 101**. These are summarized as follows:

- You must prepare your attachments in a word processing program and follow these formatting standards:
- Spell out all acronyms and abbreviations the first time they appear
- Use letter-size pages (8.5 x 11 inches or 216 mm x 279 mm)
- Use single spacing, with no more than six lines of text per inch
- Use 12-point Times New Roman font for all text*
- Do not use condensed fonts; they will not be accepted
- Use black text only
- Set all margins to at least ¾ inch (1.87 cm)

- Type your name at the top right corner of every page (in the header section)
- Number all pages sequentially in multi-page attachments
- If any supporting document is in a language other than English or French, you must provide a certified translation
- All content, including references (if applicable), must follow these formatting standards.

* Font and size rules do not apply to text within tables and figures. However, the font must be clearly legible. NSERC may reject your application if this requirement is not met. Figures and tables count toward specified page limits.

The predoctoral research proposal must be written by the candidate and must be written at a level that is generally understandable to a PhD Biologist working in a different research field. The proposal must not be read or edited by the supervisor or the supervisory committee members prior to its submission. However, candidates may request and obtain sample Discovery Grant proposals from their supervisor or anywhere else. They may also consult with their peers, including having peers proofread the proposal. Candidates may consult with the GPD to get direction on structure and organization of the grant. Candidates can use any online resources they wish, but the document must ultimately be in their own words. All individual statements contained in the proposal are subject to examination and must be explained in detail in the oral exam.

Selection of Topic

The predoctoral proposal should be on a topic related to, but not the same as, the candidate's PhD research. Ideally, the proposed research could serve as a future postdoctoral research project, or as a backup project if the primary PhD research project fails. Once the topic has been agreed upon by the supervisory committee, it cannot be changed prior to examination.

Sections to Include

While a full Discovery Grant contains many sections, not all are required for the predoctoral exam. The following are the sections you must write.

Summary (one page, double-spaced): For awarded Discovery Grants, this summary is available to the public. It must therefore be written using language that the general public can readily understand. Briefly describe the nature of the work being proposed. Indicate why and to whom the research is important, the anticipated outcomes, and benefits to Canada.

Proposal (five pages, single-spaced): This is written for fellow PhD-level Biologists and can use field-specific jargon and abbreviations. All abbreviations must be defined. Using the headings below, describe the research proposed. You can include up to three figures or tables.

- Objectives of the research, both short and long term. Hypotheses to be tested, specific predictions, anticipated outcomes, contingencies
- Background literature pertinent to the proposal
- General approach and specific methods
- Anticipated significance of the research

References (one page, single-spaced)

- Must use consistent formatting
- Do not include hyperlinks
- Ensure all references are used properly. If unsure of how to properly use citations, discuss with the GPD

8.4 PhD Thesis

The Supervisory Committee, in conjunction with the student, decides when sufficient work has been done to constitute a PhD thesis within the discipline. This is indicated in the Graduate Student Progress Report Form. At this point the student has 'received permission to write', although some writing, including publication of data chapters as manuscripts, may have occurred already.

General thesis formatting guidelines are available on the FGSPA Research-Based Students webpage. The following are general guidelines that reflect typical PhD thesis content and organization in the Biological Sciences graduate program. It is by no means the only possible organization; discuss a suitable organization for *your* work with your supervisory committee. Note that published manuscripts can be included in the thesis in the same basic layout in which they are published but should be formatted to match the other thesis sections. For example, references from such publications should be moved to, and integrated within, the Reference section at the end of the thesis.

Chapter 1 - General Introduction

Chapter 2 – Data Chapter

Chapter 3 – Data Chapter

Chapter 4 – Data Chapter

Chapter 5 – General Discussion and Conclusions

References

Appendices (if needed). These may contain raw data, images, statistical summaries, or other details that are not needed in the main text.

Total length is typically 150-250 pages, but this is not a rule.

Internal Thesis Review

Once the supervisor(s) agree(s) that the thesis draft is ready for internal review by the supervisory committee, an email to that effect, from the supervisor(s) or the student, should be forwarded to the GPD and GPAC. The student should provide an electronic copy of the thesis in MS Word (or similar, easily editable format) to the GPD and GPAC, who will forward it to all committee members. Normally three weeks are allowed for any individual committee member to review the thesis and return comments/edits (but see below for black-out periods) or accept it as ready for external review. If edits are needed, they should be done expediently by the PhD candidate and the document then recirculated. The thesis may be submitted for external review once required the revisions requested by internal reviewers have been made.

External Thesis Review and Defence Date

The student must submit the final copy of the thesis to the Graduate Program Director as a MS Word (or similar) file. The supervisor and student must also complete the PhD External Examiner form with a list of three potential external examiners and their contact information, ranked in order of preference, and submit to the GPD. An external examiner must not be a *member of the program.* Thus, a faculty member in another department at Brock who is not an associate with the department of Biological Sciences can serve as external examiner. The list of potential external examiners is forwarded to the Dean of the Faculty of Graduate Studies and Postdoctoral Affairs by the GPD/GPAC. Once an external examiner has been named, the GPD will appoint an internal examiner from outside of the graduate program. A defence date will then be set. Electronic copies of the thesis will be distributed to the committee. Students should keep a copy for themselves and bring it to the defence.

Candidates should plan for at least 10 – 12 weeks between the submission of the approved thesis and the actual Doctoral Defence date.

Black-out Periods for Internal Reviews and Defences: Recognizing that holiday and/or particularly busy teaching times may interfere with supervisory committee activities, two black-out periods have been established. These periods will not be counted in the three-week turnaround guideline. Summer black-out occurs from August 15th to August 31st, immediately prior to the beginning of Fall Term. Winter black-out is from December 18th to January 3rd to accommodate the annual Winter Break, during most of which Brock University is closed.

Note that students should not submit theses for internal review within these time periods. Students are advised to plan ahead. For example, if you wish to defend your thesis on

September 1, you should submit it for external review before the end of June. Likewise, if you wish to defend on January 5th, you should submit for external review by November 5th.

8.5 Thesis / Research Defence

8.5.1 Committee Composition

The examination committee is composed of minimum six faculty members (or seven in the case of co-supervisors): the committee chair (Associate Dean of Graduate Studies and Postdoctoral Affairs, or a Dean's delegate,), external examiner, internal external examiner, thesis supervisor(s), and two departmental representatives (normally the two departmental members that were on the advisory committee).

8.5.2 Procedures

Format of thesis defence

1. The PhD thesis defence is a public event that will be advertised to the university community. Typically, in-person and virtual attendance is possible. Audience members attending virtually MUST have their microphones off at all times.

2. Exam chair introduces committee and candidate, explains the format of the defence.

3. Candidate presents a research seminar, around 30 minutes in length, followed by a short period in which the floor is open to questions from the audience.

4. After a short break, the examination begins. Audience members may remain but may not ask questions and may not leave the room and return.

5. The order of questioning is usually external examiner, internal external examiner, 1st departmental representative, 2nd departmental representative, supervisor(s). The chair of the examining committee is not required to participate in the questioning period, but may do so if they choose to.

6. The defence period is normally about 3 hours, consisting of two rounds of questioning by the examining committee. However, the exam may be longer if the committee deems it necessary. Typically, each committee member takes 15 minutes in the first round and 10 minutes or less in the second round. However, external examiners can be allotted additional time. In the case of co-supervision, each supervisor will take half of the allotted time.

7. When the committee has no further questions, the Chair thanks the candidate and the audience, who then leave the room so that the Committee may deliberate in camera.

Possible outcomes of the exam:

All members of the examining committee will vote on the outcome of the exam, except the Chair, for a total of 4 votes (or 5 votes if the student is co-supervised).

If at least 3 members of the committee vote to fail, the result is FAIL. If at least 3 members of the committee vote to pass, the result is PASS.

In the event of a tie vote (2 votes for pass, 2 votes for fail), *the vote of the external examiner will be the outcome of the exam*.

8.6 Post-Defence Requirements

There are several forms that must be submitted to your GPAC, which are available on the FGSPA Student Forms webpage under Thesis Submission. Some forms are circumstantial*, but all students must submit the following:

- Library and Archives Canada (LAC) Non-Exclusive License to Reproduce Theses
- Brock University Thesis and Major Research Paper Copyright License Form

*Under certain circumstances (e.g. to protect confidential commercial information, patentable material, pending submission to a journal for publication), the Vice-Provost and Dean of FGSPA may approve to restrict circulation of a thesis in the digital repository for up to twelve months from the date of a successful defence. Details and instructions can be found on the FGSPA Research-Based Students webpage.

8.6.1 Submission to Brock Digital Repository

Upon completion of thesis revisions, students must upload their final thesis document to the Brock University Digital Repository. Details and instructions can be found on the FGSPA Research-Based Students webpage.

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

9 ACADEMIC PERFORMANCE AND PROGRESS

9.1 Academic Performance and Continuation

Graduate students must achieve and maintain minimum satisfactory academic performance to be eligible to continue in a graduate program. As stated above, failure to pass a graduate course is grounds for removal from the program. Alternatively, when a student's research progress is deemed unsatisfactory by the supervisory committee, they can recommend to the GPD that the student be placed on academic probation for the subsequent term or required to leave the program.

Satisfactory progress in the PhD in Biological Sciences degree requires achieving the milestones outlined in the table below at the appropriate times.

1st term	By the end of the first term, students should have had their first supervisory committee meeting.
3rd term	By the end of their first year in the program, students should have completed the majority of their course requirements. They should have had two supervisory committee meetings. Ideally, at least one TAship should be completed.
6th term	By the end of their second year in the program, students should have completed all of their course requirements. They should be collecting and analyzing data.
9th term	By the end of their third year in the program, students should have sufficient data to present their work at conferences. They may be in a position to publish completed data chapters. They should be fully immersed in their field of study and developing a high level of expertise.
10th term	By the end of their 10th term in the program, students should be writing a first draft of their thesis and be ready to circulate it for internal review early in their 11th term of study.

Note that failure to achieve some or all of these milestones may be grounds for removal from the program.

9.2 Final Stage Status

If an additional term beyond the standard length of their program is required to finish the program, students can apply for 'Final Stage Status' (FSS) for reduced tuition in the final academic term. Students approved for Final Stage Status by their graduate program must have completed all course work, other program requirements and must have a complete draft of their thesis that their supervisory committee agrees requires no additional chapters/sections. Students approved for Final Stage Status must be able to complete their exit requirement within the subsequent term. Final Stage Status will be awarded only once and for only one term.

The Final Stage Status form is available on the FGSPA Student Forms webpage under Registration and Student Status. Deadlines for submitting a Final Stage Status form are August 1 for fall term, December 1 for winter term, and April 1 for spring term.

9.3 Application to Graduate

To receive their diploma, a student must apply to graduate through their my.brocku portal even if not planning to attend a convocation ceremony. Brock has two graduation ceremonies, in June and October of each year. The deadline to apply to graduate is February 1st for the June (Spring) ceremony and July 1st for the October (Fall) ceremony.

Please refer to the FGSPA Apply to Graduate webpage for details on applying to graduate, and the FGSPA Important Dates page for convocation deadlines and dates.

Details about post-graduation work permits (PGWPs) can be found on the Brock International website.

10 ACADEMIC INTEGRITY, ACADEMIC MISCONDUCT, APPEALS

10.1 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. This includes the use of Artificial Intelligence (AI)-based tools. Since these tools are evolving rapidly, for up to date policies on their use please visit Brock's Academic Integrity webpage and the Graduate Calendar Academic Regulations page (XII. Academic Integrity/Academic Misconduct).

10.2 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.

In the event a student is suspected of engaging in academic dishonesty, professors will contact the GPD and there will be an interview between the GPD and the student. During this interview students have the right to have an advisor present such as Brock's Ombudsperson. Additional procedures covering academic misconduct can be found on the Graduate Students - Academic Integrity webpage and in the Graduate Calendar under Academic Regulations (XII. Academic Integrity/Academic Misconduct).

10.3 Appeals

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 to the pre-appeals procedures and appeal timelines as summarized in Faculty Handbook section III, Appendix 1. Additional details are outlined in the Graduate Calendar (Academic Regulations, XIII. Graduate Student Appeals) and the Student Senate Appeals webpage.

11 HEALTH, SAFETY, AND WELLNESS

The health and safety of individuals is to be a primary objective in every area of operation at Brock University. 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 the Brock community 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 and Safety Policy, as well as Lab Safety and the process for incident reporting.

As outlined in the Ontario Occupational Health and Safety Act, students employed by the University are required to complete the mandatory Health and Safety Awareness Training available on SharePoint in the Health Safety and Wellness Toolbox (requires a Brock employee login).

Under the Accessibility for Ontarians with Disabilities Act (AODA) and the Human Rights Code, students employed at Brock University are legally obliged to undertake mandatory online training through Brightspace, Brock's learning management system.

11.1 Program-Specific Details

Specialized safety training is required for all PhD Biological Sciences students working in wet labs or field environments. This training is administered by the Office of Research Services; contact Claudia Bucciarelli or Leila Vistorte for details about what is required for *your* research work. Students traveling for field work or to conferences or other professional activities should download the International SOS app and register their activities with Brock so that help can be provided, if needed, in a timely fashion. Your supervisor, the GPD, and/or the department Chair should be able to connect you with the appropriate resources.

Students working with animals will need their activities to be approved by the Brock Animal Care and Use Committee (ACUC). Students working with human samples or patient-derived data may need permission of the Research Ethics Board (REB). It is the responsibility of the student and supervisor to secure all necessary permissions. If you are unsure, please ask your supervisor, the department Chair, or GPD.

12 STUDENT RESOURCES

Below are details about some of the services and resources available to students across Brock University, including those offered by the FGSPA. For a full list of services and supports available at Brock, please visit the University's Services, Departments and Offices directory.

12.1 FGSPA Graduate-Specific Resources

Academic Writing Supports

All graduate students have access to FGSPA's academic writing supports to help develop their writing skills. The Graduate Academic Support Specialist, in partnership with Learning Services, offers a variety of one-on-one and group support and events (with in-person, online, and hybrid

options) to help graduate students at all levels of study, including bookable sessions, workshops, and events to support their writing development.

Graduate Advising

Graduate-specific academic advising is available to all graduate students to discuss a variety of topics related to their studies in a safe, confidential environment. FGSPA's Graduate Academic and International Specialist helps students navigate their graduate studies and overcome barriers that may impact their success. Students are encouraged to reach out at any point during their studies for guidance and support.

GRADvantage

GRADvantage is a centralized hub of academic and professional development resources, workshops, and events, aimed to help guide graduate student success. This framework is organized into five areas based on a student's unique interests and goals for the future: Communicator, Community Builder, Innovator, Leader, Researcher. Current graduate students can also complete the GRADvantage pathway on ExperienceBU to earn a certificate.

Additional Development Opportunities

Graduate students are encouraged to explore other development opportunities, such as the Three Minute Thesis (3MT) Competition (, GRAMSS conferences (https://brocku.ca/mathematics-science/gramss/), Mapping the New Knowledges Graduate Student Conference, and GRADflix to share their research and practice their knowledge translation. Attendance at field-specific conferences outside of Brock University is explicitly encouraged. Costs incurred are typically shared by the supervisor and various university units. These change often, so students are encouraged to check in with the GPD and/or Elena Genkin. As of July 14, 2026, the Provost's Enhancement Fund exists for funding up to $500 for these activities: https://brocku.ca/avp-students/funding-opportunities/. Occasionally, the Department of Biological Sciences will have extra funding to support graduate students. Please contact Ping Liang, Department Chair, or the Biological Sciences Administrative Assistant. In addition, the Graduate Student Association may provide additional support.

12.2 Additional Resources at Brock

Office of Research Services

The Office of Research Services (ORS) provides support to graduate students on internal and external grant funding opportunities, improving research communications and knowledge mobilization, and discovering real-world applications to research. The Office of Research is responsible for ACUC and REB activities, so please contact them if you think you need permissions. Students are encouraged to contact ORS for any further support.

Student Wellness and Accessibility Centre

Brock's Student Wellness and Accessibility Centre (SWAC) offers a range of services that support student mental health (e.g. crisis management, personal counselling), wellness, medical care, and accessibility. Students requiring accommodations during their graduate studies can contact Student Accessibility Services within SWAC.

Brock University Library

The Brock University Library offers a variety of resources to students, including scholarly content in digital and print format, diverse study spaces, innovative technologies, an institutional repository and open access publication platforms, and guidelines for research strategies. Hours of operation at Brock's various library locations, including the James A. Gibson Library in Schmon Tower, can be found on the library's website.

Career Services

Brock's Career Education team helps students with career exploration, feedback on documents (CV, resume, cover letter, statement of intent), job search strategies, interview preparation, and personal branding. Students can contact the Career Education team for further support.

Centre for Pedagogical Innovation

Brock's Centre for Pedagogical Innovation (CPI) supports excellence in teaching and learning across Brock University, including instructional development, support on digital tools for teaching and learning, curriculum support, and fostering effective teaching. Graduate students can explore workshops and supports tailored for teaching assistants through CPI's website.

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. Details about these services and a listing of events and workshops for international students are available on the Brock International website.