

OTTAWA-CARLETON INSTITUTE OF BIOLOGY  
GUIDE FOR GRADUATE STUDENTS AT CARLETON UNIVERSITY

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This guide is meant to answer the most frequently asked questions about the M.Sc. and Ph.D. Programs for **Carleton Graduate Students** within the Ottawa Carleton Institute of Biology (OCIB). It is divided chronologically from first registration to final submission of the thesis copies to the [Faculty of Graduate Studies and Postdoctoral Affairs](#) (FGPA). Note that the guide is indicative, but not the final word on program regulations since details can change over time. Students should therefore consult the [Graduate Calendar](#), the Graduate Administrator, the Graduate Chair, and/or the appropriate officer at the FGPA if in doubt about specific program regulations.

## 1. Admission, Registration and Funding

Students are admitted to the Institute after:

1. They have met the academic requirements as set out in the [Graduate Calendar](#)
2. A supervisor or co-supervisors have indicated acceptance
3. Funding at the current minimum has been arranged

Note that the academic requirements for admission to the OCIB may be slightly higher than those listed in the Calendar as [General Requirements for the University](#). The OCIB normally requires a minimum B<sup>+</sup> Grade Point Average (77-79%) (GPA) overall. Even with this standing however, competition for available funding may mean that a B<sup>+</sup> student is not admitted.

A Ph.D. involves 1 credit (0 credits from thesis; 1 credit taught courses [usually two 0.5 credits]); a M.Sc. involves 5 credits (4 credits from thesis; 1 credit from taught courses [usually two 0.5 credits]).

Funding for domestic students\* is normally made up from three sources:

1. A Full Teaching Assistantship (TA): full TA usually involves 10 hours of work per week in the Fall and Winter terms
2. "Departmental" Scholarships (plus Domestic Entrance Scholarship [GPA-dependent] in year 1 only)
3. A Research Assistantship (RA) paid from the Supervisor's Research Grant(s)

\* Please consult with Graduate Chair or Graduate Administrator for funding options for International students.

External Scholarship holders (for example those receiving awards from NSERC or OGS) will be awarded the Departmental Scholarships as applicable and may hold a full TA, but the continued award of an RA is at the discretion of the supervisor(s) who contribute it (note that if the RA is reduced then one of the Domestic Scholarships may be reduced). As the values of scholarships change from year to year, please contact the Graduate Administrator or Graduate Chair in Biology for details.

Students given TA support are subject to the collective agreement with [CUPE 4600 - Unit 1](#), and as such are given priority for TA funding as follows:

Ph.D. students	10 terms over 5 consecutive calendar years
M.Sc. students	4 terms over 5 consecutive calendar years

**Please refer to the Graduate Calendar for information on registration procedures and deadlines.**

## 2. Advisory Committee and Meetings

As soon as possible and no later than 4 months after registration, an Advisory Committee should be

appointed to guide the candidate's research throughout the program and to meet formally with the candidate at least once yearly. The first meeting should be held within the first 6 months. This meeting will typically involve discussion of a tentative (“outline”) research proposal, submitted at least a week in advance to the Committee. This outline document briefly summarizes the student’s general proposed research area, it will highlight how they intend to contribute to this general area and present any baseline data they may have collected. Note that this document is designed to stimulate and focus discussion but (like all good plans) is subject to change. The supervisor and student will consult with the Advisory Committee on [course selections](#). As courses offered will vary between terms, please consult the [public class schedule](#). It is the student's responsibility to arrange their Advisory Committee Meetings.

The Advisory Committee consists of at least three members, including the candidate's supervisor (and co-supervisor if applicable) and two advisors normally chosen in consultation with the student. Supervisors and co-supervisors are normally members of the OCIB (either as faculty or as adjunct). **Any exceptions must first be approved by the Graduate Chair in Biology and then FGPA.** Adjunct Professors may co-supervise M.Sc. students and Adjunct Research Professors may co-supervise both M.Sc. and Ph.D. students. Instructors may not supervise or co-supervise graduate students, but they can sit on their Advisory Committee. Normally, the two advisors will be OCIB members, one from each University. However, as the purpose of the Committee is to provide the best possible mentors for the student, advisors can also be drawn from another relevant Institute. **Advisors who are not OCIB members should be approved by the Graduate Chair in Biology.** Advisory Committee membership (including supervisor, co-supervisors and advisors) must be noted on the Advisory Committee Report and Appraisal Form that is filled out by the supervisor at the first and all subsequent Committee meetings. This form will be placed in the student’s file, as it is an important record of the student’s progress throughout their degree and includes written support and advice from their Committee. As of fall 2020, the Advisory Committee Report and Appraisal Form will also include an assessment of the extent to which the student is achieving the appropriate graduate learning outcomes (LOs). These forms should be submitted to the Graduate Administrator following each committee meeting.

At the first meeting of the Advisory Committee at Ph.D. level the student's research project and Qualifying Exam (QE) should be discussed. This discussion is intended to help prepare students for the exam. The Advisory Committee Report and Appraisal Form should therefore include an indication of the approximate time of the QE. See section 4.0 of this document for further details.

### 3. Degree Requirements

#### 3.1. Requirements for the M.Sc. program

The M.Sc. degree will be conferred upon a candidate who has fulfilled the following requirements:

1. Completion of the graduate courses specified by the student's Advisory Committee: normally two half credit (i.e. one term) courses, but the student's Advisory Committee may also direct the student to take or to audit additional courses. The passing grade for all required courses is 70% (or equivalent) and the student is not allowed a supplemental examination. These courses must be graduate-level courses and are normally OCIB offerings. Graduate courses offered by other departments at Carleton must be approved by the Carleton Graduate Chair as well as the instructor of the course in the Department offering the course.

2. Normally completion of at least two terms (note there are 3 terms per year: fall, winter, summer) as a full-time student resident. Programs for part-time students may be arranged.
3. Presentation of a Departmental seminar on the candidate's thesis research.
4. Completion of a thesis (BIOL 5909) incorporating the results of original research carried out under the direct supervision of an approved faculty member.
5. Successful oral defense of the thesis before an examination board. See Section 5.0 of this document for details.

### 3.2. Requirements for the Ph.D. program

The Ph.D. degree will be conferred upon a candidate who has fulfilled the following requirements:

1. Completion of the graduate courses specified by the student's Advisory Committee: normally two half credit (i.e. one term) courses, but the student's Advisory Committee may also direct the student to take or to audit additional courses. The passing grade for all required courses is 70% (or equivalent) and the student is not allowed a supplemental examination. These courses must be graduate-level courses and are normally OCIB offerings. Graduate courses offered by other departments at Carleton must be approved by the Carleton Graduate Chair as well as the instructor of the course in the Department offering the course.
2. Scheduling, and passing, of Qualifying Examination normally within 18 months (5 terms) of entry into the program. This examination will cover the candidate's area of research and related topics. See details in section 4.0. of this document. **Please note that if the Qualifying Exam is being done as a requirement to fast-track from M.Sc. to Ph.D., it has to be done within the first 3 terms (12 months) from entry to the program.** See section 3.3. of this document.
3. Presentation of a Departmental seminar on the candidate's thesis research.
4. A thesis (BIOL 6909) incorporating the results of original research carried out under the direct supervision of an approved Faculty member.
5. Normally, the completion of at least four terms as a full-time student resident (or six terms if admitted without an M.Sc. via fast-tracking) (note there are 3 terms per year: fall, winter, summer). Under exceptional conditions programs may be arranged for part-time students.
6. Successful oral defense of the thesis before an examination board. See Section 5.0 of this document for details.

### 3.3. Transfer from M.Sc. to Ph.D. (Fast-track)

A student already registered in the M.Sc. program may be permitted to transfer to the Ph.D. program

following:

1. A recommendation by the M.Sc. Advisory Committee at a Committee meeting (written on the Advisory Committee Report and Appraisal Form).
2. Successful completion of the Qualifying Examination required of Ph.D. candidates (i.e. “satisfactory”). **The Qualifying Exam for student's fast-tracking should be completed by the end of the third term of registration (i.e. 12 months).**

Normally M.Sc. to Ph.D. transfers will be initiated by a recommendation from the M.Sc. Advisory Committee within 6 to 8 months after first registration for the M.Sc.

At the discretion of the Advisory Committee, students in good standing who are transferring from M.Sc. to Ph.D. without receiving an M.Sc. will be eligible to use course credits they have already obtained at M.Sc. level to help fulfill their Ph.D. course requirements.

### 3.4. Residency Regulations

M.Sc. – Normally completion of at least 2 terms as a full-time student resident.

Ph.D. - Normally completion of at least 4 terms as a full-time student resident. Students involved in lengthy field work may require a letter from the Graduate Chair confirming that absence from the University is essential to their thesis.

**Note: Please do not let your registration at the University lapse.** If your registration lapses you will receive a Loss of Status letter and must apply for reinstatement. If reinstated, students must pay a reinstatement charge plus the equivalent of 1.0 credit tuition fees for each term in which they failed to register, as well as for the current term of registration.

### 3.5. Time Limits for Program Completion (Extension Requests)

Time limits are published in the General Regulations section of the [Graduate Calendar](#). If you go over your time limit, then you will not be able to register until you have obtained an extension.

An extension may be granted provided a letter, outlining the reasons for the program delay and plans for completing the thesis and the defense, co-signed by the primary supervisor, is submitted to the Graduate Administrator. This letter and consequent recommendation of the Graduate Chair are reviewed by FGPA.

Extensions are not granted indefinitely. Please see the FGPA website for the [Extension Request Form](#).

### 3.6. The Seminar Requirement

A Departmental Seminar is required at both the M.Sc. and Ph.D. levels. The seminar is generally presented 1-2 weeks before the thesis defense. The seminar time, date and venue should be arranged by the student

and supervisor and these details should be reported to the Graduate Administrator at least one week before the defense so that the Graduate Administrator can prepare and distribute the announcement.

## 4. Ph.D. Qualifying Exam

All students enrolled in the Ph.D. program are required to successfully complete an Oral Qualifying Examination. Normally the candidate will take the exam within the first 18 months of registration. See different time line for those fast-tracking, in Section 3.3 of this document.

The contents of the Research Proposal and Qualifying Exam should be discussed well in advance by the Advisory Committee (ideally initial consideration will take place at the first Advisory Committee Meeting).

### 4.1. Research Proposal

Approximately 3,000 to 5,000 words long (6 to 10 pages excluding references). Details will differ according to content (e.g. many students may choose to break their proposal down into inter-related chapters) but it will generally include the following sections:

- a. Title page which also gives the composition of the Qualifying Exam Committee, the date of submission and date and location of the exam.
- b. An introduction giving the scientific basis for the study, a brief review of the current literature, and presentation of the hypothesis(es) that form the basis for the research.
- c. A statement of the scientific value of this research and the rationale for performing it.
- d. The specific objective(s) of the study and the underlying logic.
- e. The proposed methodology including a statement of how the data will be analyzed.
- f. A projected timetable for the research.
- g. Research completed to date (this section is optional).
- h. References.

### 4.2. Purpose

The examination has two main goals:

1. By reference to the thesis proposal, to assess the candidate's abilities to produce new knowledge in the chosen topic of research, and

2. To assess the candidate's abilities and preparation both in the research specialty and in broader topics which logically support and provide conceptual perspective for the research proposal. The examination is NOT intended to rule on the acceptability of the research project.

### 4.3. Examining Board

Will be composed of at least 5 members: the Chair, the supervisor (or co-supervisors), the 2 advisors from the Advisory Committee (normally one drawn from each University), and 1 other Member of the OCIB who is not on the student's Advisory Committee.

### 4.4. Scheduling

The student and supervisor(s) consult the Advisory Committee and agree upon a date, time and place suitable to all.

At least four weeks before the scheduled date, the student notifies the Graduate Administrator of the agreed upon date, time and place, and of the names of the examining committee board members. A pdf (electronic copy) of the Research Proposal is submitted to the Graduate Administrator at this time.

### 4.5. Format of Examination

- a. The candidate will introduce the proposed research with a brief presentation (15 minutes or less) based on the research proposal and focusing on the significance and the logic of the investigation.
- b. The individual examiners will conduct a series of dialogues with the candidate which, taken together, will constitute an organized assessment with equal emphasis on the two main goals of the examination (see Section 4.2 of this document).

The examination normally will last no more than 3 hours.

### 4.6. The Chair's responsibilities

- a. Collecting the student's file from the Graduate Administrator.
- b. Conducting the examination within the guidelines.
- c. Ensuring completion of requirements of the department, the Institute, and FGPA.
- d. Ensuring the thoroughness of the assessment of the candidate according to the Purpose of the examination (see Section 4.2 of this document).
- e. Providing a written report of the examination for the candidate's file, using the forms provided.

In the best judgement of the Chair, these assessments are to be:

- i. Performed in a strictly professional manner.
- ii. Performed at an intellectual level which is appropriate to a Ph.D. program.

It is within the mandate of the Chair to:

- i. Participate as an examiner.
- ii. Recess or postpone and reconvene the examination for purposes of attaining an appropriate level of questioning;
- iii. Intervene in the questioning if needed to maintain the appropriate level or conduct of the examination;
- iv. Intervene in the discussion and assessment by examiners if the vote or consensus is not, in the Chair's opinion, accurately reflecting the results of the questioning during the examination;
- v. Deny the privilege of voting or forming consensus to any member of the board who was absent from any part of the examination considered significant by the Chair;
- vi. Recess or postpone and reconvene the examination if conditions under which it must be conducted are inappropriate;
- vii. Report in writing to the Graduate Chair any unusual conditions or actions taken in the conduct of the examination.

## 4.7. Performance

A candidate's performance on the qualifying examination will be placed in one of two categories:

**Satisfactory:** the candidate has fulfilled the qualifying requirements of the Ph.D. program, as described under Purpose above (see Section 4.2), to the satisfaction of the examining Committee. The Committee may recommend additional coursework or literature research to improve the candidate's knowledge in specific areas relevant to the research proposal.

**Unsatisfactory:** the candidate's performance was unacceptable and he/she must resign from the Ph.D. program. If the candidate has not had a re-examination (see below), this designation can be suspended and the candidate may request one to be taken within 6 months of the first examination. If no re-examination is requested within 30 days of the first examination or if the re-examination is failed, the candidate must resign from the Ph.D. program.

Under exceptional circumstances the examining Committee may specify a Deferred judgement with major conditions; this means that the board has identified important flaws in the candidate's qualifications and will recommend corrective measures. Assignments and their time deadlines will be transmitted to the



candidate in writing and must be met before the assessments of the qualifying exam can be completed. Normally, the same examining board will judge the candidate's success in meeting these conditions and in order to make that judgement, may ask for a re-examination within 6 months of the first examination. If the re-examination is failed, the candidate must resign from the Ph.D. program.

## 5. M.Sc. and Ph.D. Thesis Defenses

Please read the section in the Graduate Calendar entitled [Thesis Requirements](#), especially the convocation deadlines and the thesis specifications. Please refer to Biology Graduate [Thesis Defense Procedures](#) for additional information.

### Abstract

M.Sc. thesis abstracts are limited to 150 words; Ph.D. abstracts to 350 words.

### Integrated Thesis

The Institute allows theses to be organized in the form of chapters that represent published or publishable papers (“integrated theses”); however these chapters should be preceded by an introductory overview and literature review of the topic, and followed by a concluding chapter. An effort should also be made to avoid unnecessary repetition that may result from using the publishable paper format. References should be contained in one section at the end of the thesis. Appendices are acceptable. University thesis [templates](#) and [information](#) can be found online.

### Deadlines

The defense will be formally announced at least two weeks in advance of the M.Sc. defense, and four weeks in advance of the Ph.D. defense. These times are University regulations, which cannot be waived.

Notify the supervisor at least two weeks in advance of the date that you expect to finish writing the last draft of the thesis. At this time the student and supervisor should consult with the advisory Committee and agree to a suitable date, time and place for the thesis defense.

**At least four weeks (for M.Sc. theses), or six weeks (for Ph.D. theses)** before the defense date the student must upload an examinable copy (electronic pdf copy) to Carleton Central that will be accessed by the examination Committee. Students will also complete an Academic Integrity Form online.

The [Thesis Scheduling Form](#) must be submitted to the Graduate Administrator **before** the examinable copy of the thesis can be uploaded to Carleton Central. The Thesis Scheduling Form must indicate:

- i. the name of the student and the thesis title.
- ii. the proposed date, time and place of the defense.
- iii. the Advisory Committee members, who should have all agreed to the thesis submission.

**Don't forget to apply to graduate!** Applications must be made via Carleton Central. Deadlines can be found in the [Graduate Calendar](#).

## Committee Members

The following is a brief guide to **Examining Committee** structures:

	M.Sc. Defense	Ph.D. Defense	Qualifying Exam
Supervisor (co-supervisors)	X	X	X
Advisor (Carleton)	X	X	X
Advisor (U. of Ottawa)	X	X	X
Member of the OCIB	X		X
Member of the University*		X	
External Examiner		X	
Chair**	X	X	X

\* an examiner from a department other than (and not cross-appointed to) that of the candidate

\*\* in the case of a Ph.D. Defense exam only, the chair should be from another department. This chair is selected by the supervisor. The Graduate Administrator can provide a list of potential Ph.D. Defense exam chairs upon request.

### Ph.D. External Examiners

The External Examiner should be identified early in the preparations for the defense. The External Examiner should be contacted informally by the supervisor (not the student) and asked to participate in the defense. The External Examiner is a key person on the defense Committee and should be chosen for their expertise and impartiality, and as a recognized authority on the subject of the thesis. The External Examiner must be from outside of the University. It is wise to have another examiner in mind as a replacement should this be necessary. FGPA does not pay for the External Examiner's travel and accommodation. If teleconferencing is required, arrangements can be made to schedule the defense in a designated room.

### Defense Format

The thesis defense is conducted according to [FGPA guidelines](#) and these should be consulted.

In brief, the Chair will ask the student to withdraw while the members of the examining Committee review the report of the External Examiner (for Ph.D. defenses) and discuss the order and the nature of the questioning. The student will then be asked to present a brief (15 minute or less) overview of the major findings of the research. The Chair will then instruct the Committee to proceed with the examination.

Observers may attend the examination provided they have obtained the permission of the candidate and the Chair of the examination board. Observers are not permitted to ask questions during the examination or participate in any other way and may not leave the examination without permission of the Chair.

## 5.1. Performance

### 5.1.1. M.Sc. Thesis Defense

The examining Committee assesses both the acceptability of the thesis and the defense. The categories

for the thesis are:

- a. Accepted
- b. Acceptable after minor revisions
- c. Acceptable after major modifications
- d. Rejected

If category c) is indicated, the examining Committee or a subCommittee as designated by the Chair must assess the modifications made to the thesis before it can be submitted to FGPA.

A thesis grade is assigned one of the following categories:

- a. Satisfactory
- b. Unsatisfactory

The oral defense is likewise assessed as:

- a. Satisfactory
- b. Unsatisfactory

### 5.1.2. Ph.D. Thesis Defense

The examining Committee assesses both the acceptability of the thesis and the defense.

The categories for the thesis are:

- a. Accepted
- b. Acceptable after minor revisions
- c. Acceptable after major modifications
- d. Rejected

If category c) is indicated, the examining Committee or a subCommittee as designated by the Chair must assess the modifications made to the thesis before it can be submitted to FGPA.

A thesis grade is assigned under one of the following categories:

- a. Satisfactory
- b. Unsatisfactory

The oral defense is likewise assessed as:

- a. Satisfactory
- b. Unsatisfactory

Remember to have the External Examiner sign the original copy of the [thesis acceptance page](#) before they leave the University.

Recommendations for Senate and University Medals should be made at the time of the defense, as these recommendations require supporting letters from the Chair of the Examining Board and the Member of the Institute (for M.Sc. defenses), or the External Examiner (for Ph.D. defenses).

Nominees for Senate and University medals will also be considered independently by the Graduate Committee for a Department of Biology Outstanding Thesis Award (OTA). OTAs (normally one awarded at M.Sc. and one at Ph.D. level) are announced annually by the Graduate Chair.

## 5.2. Submission of the Final Thesis Copies

After the defense is completed successfully, the Graduate Administrator will authorize an electronic thesis upload. The student will receive an email (Carleton Email Account ONLY) with instructions on how to upload of the final revised thesis through Carleton Central. Once the upload is completed by the student the Thesis Supervisor will receive an email to authorize the corrections in Carleton Central. This will be the final step for the thesis deposit from the department.

Consult the Academic Schedule section of the Calendar for specific deadlines on submitting the final thesis copies. These deadlines must be met to avoid an additional term of registration in the program, and they also determine the date of the convocation for your graduation.

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