



Schulich
MEDICINE & DENTISTRY



Western

Department of Biochemistry
The University of Western Ontario
Graduate Student Handbook

Department of Biochemistry
<http://www.schulich.uwo.ca/biochem/>

The School of Graduate and Postdoctoral Studies (SGPS)
<http://grad.uwo.ca/>

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Enrolment in the Department of Biochemistry Graduate Program implies compliance with a set of rules and criteria that are legislated by the Department and The School of Graduate and Postdoctoral Studies (referred to as SGPS from this point on). Specific requirements are listed on the following pages. Continued enrolment also requires a level of productivity that will enable completion of the program in the time frame outlined by the SGPS. While the level of productivity will differ from student to student the minimum expected workload is 40 hours per week of lab, or lab related, work. Students should also be aware that regulations of stipend support allow two weeks (10 days) of vacation per annum.

International Students

International students must show original study permits to The School of Graduate and Postdoctoral Studies and the Department Graduate Administrator as soon as they arrive at Western. Students will also have to apply for a Social Insurance Number (SIN). Application for a SIN is made through the London Human Resources Centre of Canada, located at 120 Queens Ave., London.

You will need your Study permit/Student authorization and a “Contract of Employment for International Students at the University of Western Ontario” provided by the Graduate Administrator. The Graduate Administrator should be notified as soon as the SIN is received.

Compensation (Stipend) Information

The Department of Biochemistry has set compensation rates for graduate student stipends. Compensation rates vary and academic averages (as calculated by the Department and SGPS) and external/internal funding will decide how your compensation rate is set. Please consult with your Faculty Supervisor or the Graduate Administrator if you have any questions on the makeup of your rate. Your compensation rate will be indicated in the initial offer letter and in the Minimum Financial Package Letter after you start your program.

For students who register in the program on or after September 1, 2006, the following policy limiting the length of time a Faculty Supervisor is obligated to provide compensation to a graduate student will be in place:

1. After two years (6 terms) from initial date of registration in the MSc program a Faculty Supervisor is not obligated to pay a stipend.
2. For students who have transferred from the MSc: After five years (15 terms) from initial date of registration, with an additional half year for exceptional circumstances, a Faculty Supervisor is not obligated to pay a stipend.
3. For students who enter the PhD program after having completed an MSc: After four years (12 terms) from initial date of registration, a Faculty Supervisor is not obligated to pay a stipend.
4. For students who enter the PhD program directly from the BSc: After five years (15 terms) from initial date of registration a Faculty Supervisor is not obligated to pay a stipend.

Graduate Students with Disabilities

The University accommodates students with disabilities, subject to not compromising the academic integrity of the course or program. The student informs the Graduate Chair of his/her disability after receiving a written "Offer of Admission". The Student Development Centre's Services for Students with Disabilities office (SSD) assesses the disability and special needs and advises the Graduate Chair on the appropriate remedy. Where the recommended relief entails an extraordinary expense or special equipment, students who are eligible for OSAP may receive support from an Ontario Ministry Bursary Fund that is administered by SSD and the University's Student Financial Services. If there is still need, SSD should contact the program. If the program cannot provide the relief, SSD should contact The School of Graduate and Postdoctoral Studies who will review the case with all interested parties to seek remedy.

Health and Wellness

As part of a successful graduate student experience at Western, we encourage students to make their health and wellness a priority. Western provides several on campus health-related services to help you achieve optimum health and engage in healthy living while pursuing your graduate degree. For example, to support physical activity, all students, as part of their registration, receive membership in Western's Campus Recreation Centre. Numerous cultural events are offered throughout the year. Please check out the [Faculty of Music webpage](#) and our own [McIntosh Gallery](#).

Information regarding health - and wellness-related services available to students may be found [here](#).

Students seeking help regarding mental health concerns are advised to speak to someone they feel comfortable confiding in, such as their faculty supervisor, their program director (graduate chair), or Advisory Committee members. Campus mental health resources and support can be found [here](#).

Western has developed an interactive mental health learning module, that is 30 minutes in length and provides participants with a basic understanding of mental health issues and of available campus and community resources. Topics include stress, anxiety, depression, suicide and eating disorders. After successful completion of the module, participants receive a certificate confirming their participation.

[Mental Health e-Learning Module](#)

Leaves of Absence

The Vice-Provost, SGPS, may grant a leave of absence for pregnancy/parental, medical or compassionate grounds normally to a maximum of three terms or 12 months, on the recommendation of the Graduate Program.

While on leave, students are expected to be away from normal activities as graduate students (e.g. attending classes, conducting research). However, students and supervisors may negotiate ongoing communication during this period.

The start and finish of the leave may begin or end at any point in the term; normally the leave 5 will coincide with the start and end of terms. Students are advised to consult with their graduate program to make special arrangements especially if taking courses during this period. The date for degree completion and funding of the degree program will be extended by the duration of the time taken on leave, i.e. one, two or three terms as appropriate.

Withdrawal and Readmission after Withdrawal

Withdrawal from a program can occur in two ways. A student can voluntarily withdraw, following formal notification to the program. Alternatively, the program or SGPS can withdraw a student for failure to meet admission conditions, progression requirements, specified deadlines for completion, or failure to pay fees. Once withdrawn from a program and SGPS, the person withdrawn is no longer a student and may not attend classes, receive supervision, or have access to any resources of the University.

Students who have voluntarily withdrawn or who have been withdrawn and wish to complete their program must formally re-apply for admission. Credit for previous work completed must be approved by the program and SGPS.

Students who are withdrawn for non-payment of fees will be considered for admission under the following payment conditions:

- Any student who has withdrawn or has been withdrawn may be required to pay fees for the terms in which registration has lapsed if admitted.
- Payment of all fees owing at the time of withdrawal including all penalty fees incurred as a result of the default
- Prepayment of full fees for the term in which admission is sought
- These payments must be money order, cash, direct debit, or certified cheque

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- Prepayment of full fees for the term in which admission is sought
- These payments must be money order, cash, direct debit, or certified cheque

Transferring from MSc to PhD

Programs may allow students to transfer their registration from the Master's to the Doctoral degree within the same program, without completion of the Master's degree. The Provost, SGPS, will consider such requests on the recommendation of the student's program.

Transfers from the Master's to the Doctoral program must take place before the sixth term of Master's registration, unless the program's OCGS-approved provisions state otherwise. See "Qualifying Exam" Section, for Department requirements.

Part-Time Status in a Full-Time Program

Part-time registration in full-time programs may be granted in exceptional circumstances and only with the approval of the Graduate Program and the Vice-Provost, SGPS. Examples of such circumstances are: admission to another full-time university program or medical or compassionate circumstances that make it impossible for the student to continue to devote full-time attention to his or program of study.

Supporting documentation must be submitted with the request for part-time status.

Part-time status is not to be used as a means for reducing or avoiding tuition fees. Being beyond the funding eligibility period will not, by itself, constitute grounds for a change from full-time to part-time status. Part-time status may be granted for up to a cumulative total of three terms.

Students registered part-time may take no more than two courses in a term. Undergraduate courses taken as extra courses or as degree requirements are to be included in the totals above.

The School of Graduate and Postdoctoral Studies Requirements

The following information is from the [SGPS web site](#) which has the most up-to-date information.
[Complete list of Regulations](#)

1. Must maintain a cumulative average of at least 70% calculated each term over all courses taken for credit, with no grade less than 60%.
2. May be absent from the University while visiting libraries, attending a graduate course at another institute, doing field work and the like. If such periods exceed four weeks in any term formal approval is required from both the program Graduate Chair and the Dean of Graduate Studies.
3. To be registered, graduate students **must pay or make arrangements to pay** all fees by the established deadline each term (see the Office of the Registrar's website for exact deadline). Failure to pay fees will result in deregistration. See **Withdrawal and Readmission after Withdrawal** process.
4. Graduate students must maintain continuous registration in The School of Graduate and Postdoctoral Studies in each successive term from initial registration until the end of the term in which all requirements for the degree are completed.
5. All degree programs must be completed within a period not exceeding, in the case of the Master's degree, three calendar years from initial registration and, in the case of a Doctoral degree, six calendar years from initial registration. For students who transfer from a Master's program to a Doctoral program without completing the Master's program, a maximum of seven calendar years from the initial registration in the Master's program will be given to complete the Doctoral degree.
6. To be registered as a full-time student according to the Ontario Ministry of Training, Colleges and Universities, a student must meet the following criteria:
 - be pursuing graduate studies as a full-time occupation.
 - be geographically available and visit the campus regularly (subject to exceptions listed in point 2 above).
 - must not be employed by the University for more than an average of ten hours per week in any term.
 - be considered a full-time graduate student by the graduate program.
must have paid, or have made arrangements to pay, full-time tuition fees.
 - must identify himself or herself as a full-time graduate student in a degree program.

Department of Biochemistry Requirements

Department of Biochemistry Web Site

1. Student must form an advisory committee during their first term of registration.
2. Students are required to have a minimum of one advisory committee meeting per year. These meetings must be reported to the [Graduate Administrator](#). (Appendix A – sample of report form – form is available on the [Biochemistry Administrative Forms webpage](#).)
3. They must have an admission average of 70% or above to be eligible for WGRS support. Students must then maintain a minimum 80% average to retain funding.
4. Students are required to attend departmental graduate program seminar/poster sessions. Students may absent themselves from a session if they are ill, or if there is a conflict with a scientific conference or event. Attendance will be monitored and if a student is absent from more than one session without a valid reason, the student will forfeit the 0.25 graduate seminar course credit.
5. Students should obtain written approval from their advisory committee to commence writing their thesis. Written approval must be filed in the student's file.
6. Maintain a level of productivity that will enable completion of the program in the time frame established by SGPS.
7. Observe all safety regulations and policies established by the University.

See specific sections (i.e., Qualifying Exam – Transfer Exam) for more detailed requirements.

Roles and Responsibilities

The Program (Department):

1. The program should implement and follow the policies of SGPS.
2. Programs should provide sufficient information in the letter of offer of admission to new graduate students. This would include, for example, details about means of support (e.g., TA, scholarship, supervisor funding), amount of funding, time of funding, and any initial program expectations. Information should also be provided regarding supervisor arrangements, including the assignment of supervisors, or availability of potential supervisors and their research areas.
3. Programs should provide orientation/information sessions for both new and continuing graduate students. Information conveyed in these sessions might include: overviews of program policies and requirements, areas of expertise of faculty members for research supervision, expected performance and time-lines for completion of degree requirements, intellectual property policies, publication and authorship issues, scholarship and funding

information, TA information (and for international students, information about visa requirements and employment regulations), information on policies regarding the proper conduct of research, sexual harassment and race relations, AIDS policies, information about safety and work place regulations, procedures for complaints and appeals, and information on help lines, advisory offices, and counseling services.

4. The program should ensure that each new graduate student has an identified supervisor (or interim supervisor/program consultant) as soon as possible after starting the program. The program should also ensure that the advisory committee is in place at the appropriate point in time.
5. The program shall ensure that arrangements are made for an alternate supervisor if the regular supervisor either departs or is absent for an extended period.
6. The program should provide students with written guidelines of program policies and notification of any changes.
7. The program should assess and review each student's academic and research progress, at least on an annual basis. This review would include such factors as performance on course work and Ph.D. comprehensive examinations, and thesis progress. The program should provide feedback which may include specific goals and time-lines for completion of various components of degree requirements. Feedback may also take the form of a written contract of expectations. Areas of concern and lack of progress must be clearly identified for the student.
8. The program should identify paths/resources available to students for assistance, and if they wish to raise concerns about their program, supervisor, etc.
9. The program should encourage open communication and feedback between students and supervisors on all issues, including supervisory practices.
10. The program should strive to maintain an atmosphere conducive to scholarly work by graduate students, and help enhance their creativity and productivity.
11. The program should provide mechanisms for monitoring/resolving problems which may arise between graduate students, supervisors, and members of the advisory committee, and do so in a timely fashion. Programs should further ensure that these mechanisms are congruent with established appeals policies and procedures.
12. The program should ensure a safe working environment for students, and inform them of all relevant safety and work regulations.
13. The program should ensure that a supervisor takes on only as many graduate students as he/she can properly supervise.
14. The program should ensure students are aware of evaluation criteria for all work before work commences.

The Supervisor:

1. The supervisor should make and maintain a strong commitment to devote the required time and energy needed to successfully engage in graduate student supervision. As part of this commitment, the supervisor should display the highest ethical standards of behavior at all times.
2. Potential supervisors should have sufficient familiarity with the field of research to provide appropriate guidance and supervision, or indicate a willingness to gain that familiarity before agreeing to act as supervisor.
3. The supervisor should discuss with the student any expectations and the relevant policies concerning authorship on publications, and issues surrounding ownership of intellectual property (this may include patents/licenses). This may result in written agreements or contracts between the supervisor and student covering these issues.
4. The supervisor should make the student aware of program requirements and deadlines, various sources of funding, policies covering the conduct of research, and any relevant safety and/or work place regulations. The nature of any financial support provided by the supervisor should be communicated clearly to the student, in writing, including such details as the amount of financial support, the length of time of such support, and any specific conditions pertaining to this financial support.
5. The supervisor should discuss and formulate with the student a plan of study for completion of degree requirements and thesis work, with clear milestones denoting progress. This would include, for example, assisting the student in selecting and planning a suitable and manageable research project, as well as setting a viable time schedule and adhering to it for thesis progress and completion.
6. The supervisor should be available for regular consultation with the student. The supervisor and student should discuss and agree on an appropriate schedule for supervision meetings, and the supervisor should provide constructive and timely feedback to the student. More generally, the supervisor should maintain open communication and feedback with the student on all issues, including supervisory practices.
7. The supervisor should provide regular evaluations and assessments of the student's progress and academic performance. This would include a review with the student and advisory committee, at least on an annual basis, of progress on thesis research and any other relevant degree requirements. The supervisor should then provide input to the program regarding the student's progress.
8. The supervisor should make reasonable arrangements to ensure that adequate and appropriate research resources are available for the student's Thesis project. The supervisor should help ensure that the research environment is safe, healthy, free from harassment, discrimination, and conflict. To this end, the supervisor should be aware of all pertinent regulations and policies covering these issues.
9. The supervisor should provide guidance, instruction, and encouragement regarding the research activities of student. The supervisor should help ensure that the student has access

to intellectual resources and research opportunities, and should also encourage the dissemination of research results by publications and conferences.

10. The supervisor should monitor any major discrepancies in advice given to the student by members of the advisory committee and/or supervisor, and attempt to achieve resolution and consensus on the issue(s) involved.
11. Supervisors should make satisfactory alternative supervisor arrangements if away for a 10 prolonged period of time.
12. Supervisors should inform the program (i.e., graduate chair or chair), in a timely fashion, of any serious difficulties which may arise in supervision. These might include major professional academic disagreements, interpersonal conflicts, or potential conflict of interest situations.

The Advisory Committee:

1. In conjunction with the supervisor, the advisory committee should help the student develop a program of study, and also report on the progress of the student's work. Members of the advisory committee thus serve to broaden and deepen the range of expertise and experience available for providing advice and for assessment of the student. As such, membership on this committee should be determined by consultation between the supervisor, student, and program if questions arise (e.g., graduate chair). The advisory committee can include faculty from other departments in addition to biochemistry faculty; the final composition must include 50% biochemistry faculty.
2. The advisory committee assists the supervisor with the monitoring process. This includes a report and meeting between the student, supervisor, and advisory committee, at least once per year, to review progress on degree requirements. Details on reports and advisory committee meetings are provided in the section "Advisory Committee Meeting and Reports".
3. Members of the advisory committee may provide additional guidance and advice on the student's thesis research project, thus complementing the expertise of the supervisor. The advisory committee members should be available to provide other sources of information to the student, and also provide constructive criticism and discussion of the student's ideas as they develop.
4. Members of the advisory committee should be reasonably accessible to the student when called upon for discussion of the student's academic progress, consultation on issues related to the thesis research project, and for general guidance. Advisory committee members should be reasonably available to meet at the request of the student or supervisor.

The Student:

1. The student should make and maintain a strong commitment to devote the required time and energy needed to engage successfully in graduate work and research, write a thesis, and contribute fully to the scholarly and intellectual life of the University. The student should show dedicated effort to gain the background knowledge and skills needed to pursue graduate work successfully and adhere to the highest standards of ethical behavior to assure academic integrity and professionalism.
2. The student should discuss with the supervisor and expectations concerning authorship on publications, and issues surrounding ownership of intellectual property (this may include patents/licenses). This may result in written agreements or contracts between the student and supervisor covering these issues. In this regard, the students should become familiar with relevant policies in these domains.
3. The student should become aware of all program requirements and deadlines, information about various sources of funding, and university policies covering the proper conduct of research, race relations, sexual harassment, AIDs, appeals, and any other relevant safety and/or work place policies and regulations.
4. The student should discuss and formulate with their supervisor a plan of study for completion of degree requirements and thesis work, with clear milestones denoting progress. This would include, for example, setting a viable time schedule and adhering to it for all graduate work, including thesis progress and completion. Any variations to this schedule, including prolonged absences by the student, should be discussed. More generally, the student should maintain open communication and feedback with the supervisor on all issues, including super advisory practices.
5. The student and supervisor should discuss and agree on an appropriate schedule for supervision meetings. This discussion should also include agreement regarding appropriate time-frames for the submission of student materials to be reviewed by the supervisor, and the supervisor providing feedback. The student should be reasonably available to meet with the supervisor and advisory committee when requested, and be able to report fully and regularly on thesis progress and results.
6. The student should give serious consideration and response to comments and advice from the supervisor and committee members.
7. The student should maintain registration throughout the program and ensure, that where required, visas and employment authorization documents are kept up to date. The student should be aware of and conform to program, SGPS, and University requirements relating to deadlines, thesis style, and award applications.
8. The student should pay due attention to the need to maintain a workplace which is safe, tidy, and healthy. The student should respect the work and equipment of others, and show tolerance and respect for others sharing the same facilities. This would include, for example,

cleaning up work space when finished, and complying with all safety and work regulations of the program/university.

9. The student should be thoughtful and reasonably frugal in using resources, and assist in obtaining resources for the research of other group members, when applicable.
10. Where applicable, the student should comply with all ethical policies and procedures governing human or animal research.
11. The student should meet agreed performance standards and deadlines of funding organizations, to the extent possible, when financing has been provided under a contract or grant. This would include adherence to any contractual terms under which the thesis research is conducted.
12. The student should meet the terms and conditions of any financial contractual agreements, such as a TA position.
13. The student should inform the program (i.e., graduate chair or chair), in a timely fashion, of any serious difficulties which may arise in supervision. These might include major professional academic disagreements, interpersonal conflicts, or potential conflict of interest situations.
14. Set up a minimum of one advisory committee meeting annually.

Qualifying Exam- Transfer Exam

I. INTRODUCTION

This exam is mandatory for all PhD students, in which case it is called qualifying exam. This exam is a requirement for MSc students who wish to transfer from the MSc to the PhD program, in which case it is called transfer exam.

The qualifying exam is designed to provide standardized criteria for entrance into the Ph.D. program. The main component of the exam will be a written summary of the project that includes the background, rationale, hypothesis and methods of the project. This format will encourage students to read rigorously the scientific literature in their field(s) and to think creatively and critically about their project. It is expected that this format will improve the quality of our student projects and will ultimately improve the quality of our graduates. The qualifying exam will make efficient use of student time in our graduate program, and will allow students to complete their degree requirements in less time. Finally, the qualifying exam will place the responsibility for writing the exam on the students. Failure to write the exam within the allotted time frame will exclude a student from the Ph.D. program.

3. Two other faculty members at least one of which is from the Department of Biochemistry (not to include the remaining member(s) of student's supervisory Committee).
4. The supervisor. The supervisor will not ask questions and will not vote. The supervisor will be allowed to address the examination board prior to the vote on the student's performance. No supervisor that is named as a co-supervisor will be allowed to examine the student.
5. Examiners should not discuss the proposal with other examiners before the examination

Examiners will complete an evaluation form and deliver it to the graduate secretary at least 24 hours prior to the exam.

Format of the Written Presentation:

The written proposal and subsequent oral exam will test a student's ability to put forward a hypothesis and defend the rationale for testing the hypothesis. The qualifying exam process is a test of the student's ability to describe his/her own research project, and will test the student's capacity for independent thought and general knowledge about all concepts described in the proposal, including background, understanding of methods, techniques and experimental approaches. The framework for the written proposal should include the following sections:

1. Title page / Abstract
 2. Introduction
 3. Hypothesis / Research Objectives
 4. Research Progress to Date
 5. Detailed Research Plan
 6. Concluding paragraph
1. An abstract of 200 words or less (word count should be inserted after the abstract). The abstract should provide a brief introduction to the research area, succinctly state the hypothesis and principal objectives, and briefly summarize the anticipated results and relevance/novelty of the research. The abstract should not include methodological details.
 2. An introduction of 4 pages or less that should start with a short but comprehensive review of the literature. It is critical that you spend as much time as possible reading the relevant background literature before writing the proposal. By this point in your graduate career, you should be intimately familiar with papers directly related to your research area. Reading papers outside your direct research area will help you understand the relevance of your research in a broader context, and will help you write an introduction that addresses these key questions: what is the problem you are studying? why it is important? what solution do you propose? (i.e. your research objective). The introduction can also be used to introduce the laboratory work and results you have generated to date, especially if this information is essential to develop the proposal.

3. The hypothesis and specific objectives should be stated as simply and directly as possible. Before writing this section, you should think carefully about your research hypothesis, specific aims, and research objectives. A properly formulated hypothesis is critical, and should be a logical continuation of your research introduction and research area. Most importantly, your hypothesis should be a testable hypothesis. The experimental tests of your hypothesis should be stated in the specific aims/objectives section that follows the hypothesis statement.
4. A Research Progress section. If previous work is not included in the introduction, a separate section entitled Research Progress must be included to inform the reader of results generated to date. The Research Progress section should be an overview of data generated to date, the significance of the data, and how the data is relevant to your proposed research. Methodological details are appropriate only if they are necessary for the reader to understand the data. It is also appropriate to include figures and/or tables to summarize research results generated to date. If research completed to date is not relevant to the research proposal, a brief description of the research questions, experiment approaches, and results is required.
5. A detailed research plan of 3 pages or less: the proposed research must be realistic for one person to accomplish in 3 years. Each specific aim/objective should be elaborated in a detailed research plan section. It is often useful to divide this section into sub-sections that describe the research plan for each specific objective/aim. When writing the research plan, keep in mind that this section is not just a list of experimental techniques or equipment you plan to use. You should include the rationale for why this experiment is necessary to test the hypothesis, what is the goal of the experiment, why is this approach valid, what are the anticipated results, and are there any alternative approaches you can take if your first attempts are not successful? Only include detailed methodology if it is critical for the reader to understand the experiments you are proposing.
6. The concluding paragraph is not a summary of the proposal, and should focus the significance of your work in a broader context by reinforcing statements made in the introduction regarding the importance of your proposed project.

Margins must be at least 1 inch; the type size should be no smaller than 12 point and pages should be numbered. **Maximum number of characters, including spaces, is 24,500** (character count should be shown at the bottom of last page). **This character count does not include the abstract, references or figures/tables.** Students should normally include no more than one figure or table per page of text (7 figures or tables). Figures and tables should clarify, but may not serve as a place for additional text. The textual component of the proposal should be interpretable without reference to the figures or tables

Submission of Written Proposal:

The written proposal must be submitted by the dates outlined under "Timing of the Exam" (Section II), namely by March 1, July 1, or November 1, depending on the anticipated PhD start date.

The exams will be graded on the standard scale used by CIHR, from 0 to 5.

The submitted proposals will undergo a preliminary evaluation by the examiners. If in the opinion of an examiner the written component deserves less than 3.5, the examiner should return the proposal for revision along with appropriate comments and suggested revisions. This must be done within 1 week of receiving the proposal.

Revisions will be requested of the student if **ANY** examiner rates it below 3.5. Students will be given two weeks to revise their proposal.

If a student is requested to revise their proposal, an exam will go forward after the revised proposal is submitted. **If the proposal is still not at a satisfactory level, examiners may, at the exam, mark the proposal lower than 3.5.**

If the written proposal was not returned to the student after the preliminary evaluation, then the examiners must grade it at ≥ 3.5 after the exam.

Format of the Oral Presentation:

At his or her option, the student may give a brief oral presentation of the hypothesis and the rationale for testing the hypothesis. This presentation may be no longer than 5 minutes, and include no more than 3 overheads. Presentations longer than 5 minutes will be cut off by the chair.

Format of the Questioning:

There will be one round of questioning of up to 15 minutes followed by a second round of up to 10 min. each from the three examiners. The Chair will not normally question the candidate. Questions must relate to the proposal, but can cover any aspect of the proposal, and the background to it.

We do not encourage students to use the projector during questioning but will allow up to 3 "slides" to be shown to facilitate the questioning portion of the exam.

IV. ASSESSMENT PROCEDURES

The exam is designed to assess whether the student will be able to complete the work and to write and defend a good quality Ph.D. thesis. The student's performance will be assessed on the following criteria:

1. The understanding of basic principles, including (but not limited to) principles behind methodology and background to the biological system.
2. The feasibility of the project and the approach chosen by the student
Accommodations will be made for the relative speed of various types of research.
3. The clarity of communication during the oral presentation and the questioning.

4. The adequacy of the introduction and the literature review.

Method of Assessment:

The student will be asked to leave immediately following the questioning and wait elsewhere (not outside the door). The supervisor will be invited to make comments on the student's performance and on the suitability of the direction of the questioning. The supervisor(s) will be asked to leave prior to the discussion of the student's performance. The committee will discuss the student's performance, considering the supervisors' comments.

For MSc students, the members of the committee will vote and the results of the vote will indicate if the student will be invited to write an M.Sc. thesis or to proceed directly to the Ph.D. program. For PhD students, the results of the vote will indicate whether or not the student will be recommended for continued enrolment in the program.

If the PhD student is not recommended to continue in the PhD program, their registration may be changed to the MSc, if recommended by the examining committee, and if they do not already hold a MSc from the Department of Biochemistry. The vote will be confidential.

An overall passing grade, by majority vote, is 3.5. The mark for the written proposal and the oral exam from each examiner will be averaged to get an overall mark. The three overall marks will then be averaged to get the total overall mark.

V. ROLE OF THE CHAIR

The chairperson has the following responsibilities:

1. To choose the committee members.
2. To note areas where the student excels or had difficulty, and the supervisor's comments.
3. To ensure the questioning remains on time and on track.
4. To count the votes of the final assessment.
5. To note the final result and to assess the students' performance relative to his/her peers.
6. To communicate the final result to the student, the supervisor and the graduate chair.

VI. APPEALS PROCEDURE

1. To appeal the result of a Qualifying Examination, the student must provide a written request to the Chair of Graduate Studies (or designate, if unavailable) stating the basis of the action within one week following the exam. Only in exceptional circumstances will an appeal based on arguments of scientific merit be considered. It is not the purpose of the appeals committee to re-do the exam.
2. The Graduate Chair will then form a three-member appeals committee to consider the request. This committee will be chosen from among the members of the Graduate Studies Committee who have no direct involvement with the student or other conflict of interest. If it is impossible to find three such individuals, other faculty from outside the committee may be asked to serve.
3. The appeals committee will receive a written report from the Chair of the examining committee as well as the request from the student. The student's supervisor may also elect to submit a letter to the committee. Any other relevant documentation must be submitted to the committee. At its discretion the committee may also interview the participants; first the examining committee, then the student and supervisor.
4. The appeals committee will meet within one week to arrive at a judgment. A brief report must be written dealing with the acceptability of the grounds for the appeal and whether the appeal is denied or approved.
5. A successful appeal will result in a repeat of the qualifying exam with the same examining board (if possible) unless specific circumstances dictate otherwise. The appeal committee report will be provided to all members of the examining committee, the appeals committee, the appellant and the Graduate Chair.
6. Further appeals must be directed to the Chair of the Department, then the Faculty of Graduate Studies.

Department Graduate Student Seminars

All students will give a seminar or poster presentation annually.

- 1st, 3rd and 5th year students will present their work in poster format: 1st year students at a combined research day with the undergraduate 4483 students (normally in January); 3rd year students at the London Health Research Day (normally held in March).

All other students will give seminars organized in either the fall or winter terms. The Department will schedule the presentations. Students who are scheduled for a seminar during a time they will be absent (at a meeting, for example) should contact the Graduate Chair/Associate Chair or Graduate Administrator to reschedule to another session.

Note that attendance at the presentations is mandatory for all graduate students, as detailed in the section entitled "Department of Biochemistry Requirements" on page 9.

The School of Graduate and Postdoctoral Studies Course Requirements

All courses added or dropped by the student must be approved by the Graduate Chair of the student's program and by the Graduate Chair of the department offering the course (if the course is not from the student's program). Courses may not normally be added and dropped after the specified deadline dates.

Deadline dates for adding or dropping a course will normally be calculated according to the table below. A course that has been dropped by the last date specified for adding a course shall be expunged from the records. A course that has been dropped after the last date specified for adding a course but before the last date specified for dropping a course without academic penalty shall be recorded as "WDN". A course that has not been dropped in accordance with the above regulations and that has not been completed satisfactorily by the student shall be recorded as "F", failures.

Weight of Course	Last Day to Add	Last Day to Drop
0.5, 1.0, 1.5 or 2.0	One month from the official beginning of the term in which the course begins	Two months from the beginning of term in which the course begins
0.25	10 Business days	50 of the way through the course

Auditing a Graduate Course

The student must declare an intention to audit a graduate course by the enrolment deadline for the term, using the Graduate Course Audit Form. The student must have the instructor's signed approval to audit the course, as well as approval from the Supervisor (if applicable) and Graduate Chair. An Audit requires regular attendance and any other obligations as stated by the course instructor in the Comments/Expectations section of the Graduate Course Audit Form. If these requirements are not met, the audit will be removed from the student's record at the instructor's request.

After the enrolment deadline, a student may not make a change from auditing a course to taking it for credit, or vice versa, within a given term. A student may, in a subsequent term, enroll in a given course for credit that has previously been audited.

Graduate courses delivered online may not be audited without special permission from the program. See the Graduate Administrator for the "Graduate Course Audit" form.

Incomplete Courses

When a student does not complete work for a one-term half course or a two-term full course by the grade submission deadline, a grade of INC appears on the transcript. The INC will be changed to a grade if the work is completed by the grade submission deadline for the term following the one in which the INC was awarded. If a grade is not submitted by this deadline, the INC becomes a Failure.

A numerical grade submitted for an INC grade, or an F grade resulting from an INC, is final. The School of Graduate and Postdoctoral Studies will not consider a subsequent revision of either grade except on documented medical or compassionate grounds.

The INC grade does not apply to full courses that are longer than two terms (in these courses the interim grade of IPR stands until the student completes the course).

With the approval of their program and SGPS, students registered at Western may take courses at other Ontario universities under the Ontario Visiting Graduate Student program, without additional tuition. Courses taken under this agreement must be required for the student's degree program and must be taken for credit. For students in course-based programs no more than two half- courses can be taken at another institution.

Program Course Requirements

Effective September 2013, Biochemistry Graduate courses will have a .25 credit weight. Graduate Students will also receive a .25 credit for participation in the Biochemistry Graduate Seminar Series.

Students in the MSc program must complete a total of 1 credit consisting of 0.25 credit for the seminar course + 3 other 0.25 credit courses. Courses should normally be from the 9000 level. These courses will normally be offered by the Biochemistry Department, but students can take courses outside of our program providing that they are relevant to their research (see below).

Students in the PhD program must complete a total of 1.5 credits consisting of 0.25 credits for the seminar course + 5 other 0.25 credit courses. Courses should normally be from the 9000 level. If a student has transferred from the MSc program they may include any courses taken while in the MSc.

Students can take courses outside our program with justification and approval by the Advisor/Advisory committee and the Graduate Chair. Students must take at least one Biochemistry graduate course (i.e. 0.25 credits, in addition to the seminar course) and may take other courses outside of Biochemistry. Requests for a substituted course should be made in writing (email) to the Graduate Administrator.

Students self-register in graduate courses and there are deadlines to be met. Students must be registered in Graduate courses (course numbers starting with "9") before the end of the first month of the term (i.e. Sept. 30; Jan 31 or May 31). See the School of Graduate and Postdoctoral Studies Course Requirements on page 21.

The Graduate Administrator will register students in the Seminar course, and file the Pass/Fail grade when students have permission to write their thesis.

Graduate Students required to take a senior undergraduate level course (course numbers start with "4") must register during the normal undergraduate add/drop period (roughly Sept. 15 and Jan. 18 - see Graduate Administrator for exact dates). Students must complete a special form (available from the Graduate Administrator) and will not be charged additional fees for the course if it is required for their program. If the course is not required, the University will charge the student additional fees for the course.

Students wishing to take "Extra" courses, not needed for their degree will be charged the per course rate, in addition to their tuition.

For an up-to-date list of courses offered by the Biochemistry program please see the website. Please note Graduate courses are normally offered on alternate years.

Advisory Committee Meetings and Reports

Regular Advisory Committee meetings are important for establishing and maintaining a productive research program and timely completion of the graduate degree. As outlined in greater detail in the “Roles and Responsibilities” of the Advisory Committee (p. 12), the committee is there to help both the student and supervisor establish and maintain a solid record of research accomplishments and help to overcome difficulties and roadblocks by offering advice and expertise.

Composition

Students and their supervisor are responsible for recruiting Advisory Committee members, which can include faculty outside of the Department of Biochemistry. The advisory committee is composed of the supervisor and 2 or more others; 50% or more of the committee must be from Biochemistry.

Timing

There should be two meetings in the first year of the MSc or direct-entry PhD program: one meeting held sometime within the first term and second meeting held within one month of completing the third term. These initial meetings should be followed by at least annual meetings. For each Advisory Committee meeting, the student is responsible for composing a 3 to 4-page report, not to exceed 8,000 characters that:

1. Introduces the thesis project emphasizing the key hypothesis to be tested.
2. Describes relevant background literature. This should constitute one-third to one-half of
3. report (about 1.5 pages).
4. Describes and evaluates procedures being used in the studies.
5. Where possible presents relevant results.
6. Indicates the research directions.

For the first term report, the student may not have sufficient research results to present, and so the report should be more focused on the research plan.

To provide the Supervisory committee sufficient time to review the report, the student should submit the report to committee members at least one week before the scheduled meeting of the Supervisory committee. The student is responsible for setting up the committee meeting.

Evaluation

The report will be evaluated by the student's Supervisory committee. No formal grade will be assigned. The student will be expected to answer questions relevant to the report. A short summary of the strengths and weaknesses of the proposal should be provided to the student by each committee member. These summaries and a copy of the report will be kept in the student's file. If the

Supervisory committee believes the report to be unacceptable the student should be clearly informed that significant improvement would be necessary for the qualifying exam and the principal supervisor should guide the student in upgrading the report to an acceptable level.

Relationship to the Qualifying Exam

The first-year reports are not meant to replace the qualifying exam but to aid the student in his/her preparation. The scope of the reports is significantly less than the qualifying exam but after appropriate updating and revising, much of the reports could be included as part of the qualifying exam.

Second and Subsequent Advisory Committee Meetings

Advisory committee meetings must be held at least annually, and can be held more frequently if research progress warrants it, for example, if there is a change in research direction, or challenges are encountered such that timely completion of the graduate degree is in jeopardy. Annual reports provide an opportunity for the student to summarize research progress and help the advisory committee members to evaluate the strengths, weaknesses, and possible alternatives to the research plan. A report should be provided to the committee at each annual meeting. As the committee becomes more familiar with the project, the report can focus to a greater degree on progress rather than background and plans.

Thesis Information

For the most up-to-date information guide please see the SGPS website.

[Thesis Guide](#)

Timing

Thesis exams can be held at any time during the term. Students wishing to avoid paying tuition or who want to receive a refund should check the SGPS website for: submission timelines and Thesis Defense Only status; The Office of the Registrar's website for information on refund schedules. SGPS allows no more than two weeks to make corrections. Students must ensure they check final submission deadline dates on the sites noted above.

If completing by the end of a term is not a priority tuition can be prorated by the fee's office ([see registrar's web site](#))

When the thesis is thought to meet recognized scholarly standards for the discipline and degree and is ready for examination, the Faculty supervisor takes the following steps:

For MSc Students

1. The supervisor submits the “Proposed Departmental and University Examiners Form” form (Appendix B) to the Graduate Administrator at least 6 weeks before the exam date.
2. Upon return of the approved “[Proposed Departmental and University Examiners Form](#)” the supervisor contacts examiners for willingness and date/time availability.
3. A completed “[Master’s Thesis Examination Request Form](#)” (Appendix C) is submitted at least 5 weeks before the exam date.
4. The MSc thesis is submitted electronically (by the student) at least 4 weeks before the exam date.
[Thesis Guidelines](#)

For PhD Students

1. The supervisor submits the “[Proposed Departmental and University Examiners Form](#)” (Appendix B) to the Graduate Administrator at least 8 weeks before the exam date.
2. Upon return of the approved “Proposed Department and University Examiners Form” the supervisor contracts examiners for willingness and date/time availability.
3. A completed “[Doctoral Thesis Examination Request Form](#)” (Appendix D) is submitted at least 7 weeks before the exam date to the Graduate Administrator.
4. PhD candidates must submit their thesis electronically at least 6 weeks before the exam date.
[Thesis Guidelines](#)
5. Arrangements for the exam: The External Examiner must arrange for their own travel and accommodation for the examination. The External Examiner will submit their expenses to SGPS and the first \$500 will be covered. Any expenses above \$500 are the responsibility of the Supervisor except in the case where the External Examiner is giving a seminar (Menten etc.). If the external examiner will be not be travelling to Western (i.e. attending remotely), arrangements must be made so that the external examiner can hear and view the candidates public lecture and participate in the exam. SGPS guidelines for this can be found in section 8.4.1, subsection 8.4.1.1, on the following web page:
<https://grad.uwo.ca/administration/regulations/8.html>
The Schulich technical support personnel can help to set up cameras and microphone in MSB 384; participation in the exam can usually be done with a laptop, although a backup plan (using a phone, for example) should also be made.

The Department does not have a specific recommended reference style. We suggest you use the style of a journal you submit to on a regular basis. SGPS does have other specific requirements such as the spine title being less than 60 characters, including spaces. A spine title must be included if your full title is more than 60 characters including spaces.

MSc and PhD: Submission of Final Revised Thesis and Application of a Thesis Embargo

After a successful thesis examination and oral defense, the examiners, supervisors, and chair will sign the examination form testifying that the thesis was successfully defended. However, the thesis will typically require some revisions. The revision process will normally be overseen by the student's supervisor, following the specific revisions requested by the examiners. One of the examiners will withhold their signature on the thesis defense until she or he has verified that the requested revisions have been made. Once the revisions have been made and all signatures obtained, the final version of the thesis is ready for submission.

It is important to remember that the final version of the thesis is the intellectual property of the student, and it is a copyrighted document that will be electronically published by Western Libraries so that it is available to individuals outside of the university. Since the thesis may contain information that the student and/or the student's supervisor(s) does not want to be made immediately available to the public, it is critical that the student and supervisor discuss whether they wish to embargo the thesis. By putting an embargo on the thesis, the final version will be withheld from the public for up to 2 years. An embargo is useful if, for example, the thesis contains information that the student and/or supervisor are planning to publish as a manuscript and wish to withhold this information from competing research groups until the manuscript is completed and published. It is the student's responsibility to choose whether or not to embargo the thesis during the final submission process. That is, in the current system, the student is asked whether they want to embargo the thesis, and the length of the embargo, when they are submitting the final version of the thesis.

Thesis Defense Only

If you have completed all degree requirements (including thesis submission by the appropriate deadline) but have not defended your thesis prior to the end of the current term, you are eligible to continue your registration into the next term in Thesis Defense Only (TDO) status. This additional term makes the completion of your thesis possible while not requiring you to pay full tuition fees (ancillary fees still apply, and UHIP where applicable). This status may apply for a maximum of one term.

In order to be considered for TDO, Doctoral and Masters students must submit their thesis for examination, by the deadline set by The School of Graduate and Postdoctoral Studies. The specific deadline date used by SGPS is "**Final Date for Candidate to Submit Thesis for Examination to SGPS**". TDO status will be granted to those students who have not been able to secure an examination board and/or examination date that falls before the end of the term.

[Thesis Deadlines](#)

Students who meet all TDO criteria do not need to apply for a change of status; SGPS will contact these students and their Graduate Program individually.

The Thesis Examination Board and Conflicts of Interest

SGPS guidelines for the selection of the thesis examination board can be found in sections 8.4.2/8.4.2.1 (PhD) and 8.5.2/8.5.2.1 (MSc) in the [SGPS thesis regulations](#).

Examination committees for MSc and PhD defenses are chosen by the supervisor for approval by the graduate program committee. While there are no “hard-and-fast” rules, obvious conflicts of interest, such as a situation where a student and an examiner have published a manuscript together, must be avoided; similarly, examiners with close current collaborations with the supervisor (shared grant funding and/or recent publications) should also be avoided. When selecting examiners, the supervisor, possibly in consultation with the student, should consider the following points:

- is the examiner a personal friend or a relative of the student or of the supervisor?
- is the examiner intending to submit or has the examiner already submitted a proposal for funding on a topic area that is directly or indirectly related to the thesis topic?
- is the examiner directly involved in the work that the student has carried out?
- is the examiner directly involved in the work that the student proposes to carry out?
- has the examiner assisted the student with any aspect of their work, whether published or unpublished?
- has the examiner collaborated on a research project, or worked closely, with the student in the last five years?
- has the examiner collaborated on a research project, or worked closely, with the supervisor in the last five years?
- has the examiner been the PhD or PDF Supervisor for the supervisor in the past 5 years
- does the examiner have a vested interest in the research?
- has the examiner been approached and agreed to be a member of a committee connected with the research project?
- has the examiner been approached to write a letter of recommendation for the student or supervisor?
- has the examiner ever been a supervisor of the student for undergraduate or graduate research work?
- has the examiner had a professional or personal conflict with the student or supervisor?

Miscellaneous Items

Awards

Each year students (who are eligible) should apply for external awards (CIHR, NSERC, OGS, QEII, etc.). Exact deadlines change yearly, however an idea of the timing is listed below. Check with the Graduate Administrator to see if the Department has any internal deadlines.

CIHR deadlines and the application process for PhD awards can be found on their web site (<http://www.cihr-irsc.gc.ca/e/193.html>).

NSERC PhD applications are submitted through the Department, and then The School of Graduate and Postdoctoral Studies. The School of Graduate and Postdoctoral Studies forwards information to the Departments. Normally this award is applied for in the early Fall (late Sept. or early Oct.).

OGS/QEII online application through the School of Graduate and Postdoctoral Studies (usually has a February 1 deadline). You must be a current student or have submitted a graduate application to apply for these awards.

The harmonized CIHR/NSERC MSc competition is applied for through a link from the School of Graduate and Postdoctoral Studies. The deadline will usually be in early January.

There are Fellowships (Nellie Farthing Fellowship, Madge & Charles Macklin Fellowship) etc. which students may apply for. Application deadlines are subject to change but usually are in April of each year.

Contact Information

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Society of Graduate Studies

University Community Centre
Room 260
<https://sogs.ca/>

Office of the Registrar

Room 1120 Western Student Services
Building
<http://www.registrar.uwo.ca/index.html>

Campus Recreation

Western Student Recreation Centre
Telephone: 661-3090

Computer Store and Services	Lower level University Community Centre in Rm 36B Telephone: 661-3520; Fax: 661-3989 http://www.uwo.ca/ccstore/
ITS Help Desk	Main Floor Support Services Building (SSB) Telephone: 661-3800, Ext. 83800 https://wts.uwo.ca/get_help/index.html
Schulich School of Medicine and Dentistry Information Services (IS)	Help Desk: Ext. 81377 http://www.schulich.uwo.ca/IS/
Student Health Services	Room 11, Lower level, University Community Centre Telephone: 661-3030, Ext. 83030 http://www.shs.uwo.ca/
Office of the Ombudsperson	Room 251 University Community Centre Monday - Friday: 8:30 am - 4:30 pm Telephone: 661-3573 Fax: 661-3924 http://www.uwo.ca/ombuds/
Student Development Centre Services for Students with Disabilities	Room 210 University Community Centre Telephone: 661-3031 or 661-3559 Fax: 661-3949 http://www.sdc.uwo.ca/
International Student Advising the International and Exchange Student Centre	Room 2120, Western Student Services Building Telephone: 519-661-2111 ext. 85908 https://iesc.uwo.ca/
Parking	Rm. 4150 Support Services Building (SSB) Telephone: 661-3973 Fax: 850-2330 https://www.uwo.ca/parking/index.html