



Department of Laboratory Medicine & Pathology

GRADUATE PROGRAM HANDBOOK

Revised October 2011

Dear Applicants, Graduate Students, Faculty Members and Supervisors:

The Department of Laboratory Medicine & Pathology (LMP) graduate studies program is proud to offer its students a multidisciplinary research environment where collaborations between clinical and basic research faculty promotes creativity and a desire for excellence. This positive environment for scientific inquiry is supported by the modern research laboratories and state-of-the-art instrumentation and resources.

This Handbook brings together guidelines and forms to assist both current and prospective students as well as supervisors with the planning and management of graduate training in Laboratory Medicine & Pathology. Please note that the forms supplied here are samples only. The current version of all forms are available from the LMP graduate studies website: <http://lmp.med.ualberta.ca/Education/graduate/Pages/Forms-Cabinet.aspx>

I hope the Handbook will serve as a valuable resource for you, but please do not hesitate to contact the LMP graduate studies office directly at any time should you have concerns or questions.

Sincerely,

Jonathan W Martin, PhD
Associate Professor
Graduate Studies Coordinator
Laboratory Medicine & Pathology

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Documents and Forms

[Approval of Supervisor – Master’s](#)

[Approval of Supervisor and Supervisory Committee - Doctoral](#)

[Departmental Acceptance of Doctoral Thesis](#)

[Departmental Acceptance of Master`s Thesis](#)

[Graduate Student Supervisory Committee Meeting Report](#)

[Instructions to Candidacy Examination Committee](#)

[LMP Thesis Defense Report](#)

[MSGP PhD Proposal Form](#)

[Notice and Approval of a Master’s Final Oral Examining Committee](#)

[Notice and Approval of Doctoral Candidacy Examining Committee](#)

[Notice and Approval of Doctoral Final Oral Examining Committee](#)

[Report of Completion of Candidacy Examination](#)

[Request for Funds for External Examiner Travel](#)

[Request to Invite External Reader or Examiner](#)

[Thesis Approval / Program Completion](#)

1 ADMISSION REQUIREMENTS

The Graduate Studies Committee has approved the following program requirements for the graduate programs offered by the Department of Laboratory Medicine & Pathology. These requirements exceed the minimum requirements of the Faculty of Graduate Studies and Research and the Medical Sciences Graduate Program in order to ensure that the best candidates are accepted into the Department of Laboratory Medicine & Pathology and that the excellence of the program is maintained.

1.1 Application and Supporting Documents

Applicants are required to submit all material to the Graduate Studies Coordinator to support their application to the program. Failure to provide this material will result in applications not being considered. This material includes:

1. Completed electronic or paper application;
2. A current curriculum vitae;
3. Three letters of reference;
4. Original transcripts, or marksheets and degree certificates, from all post-secondary institutions;
5. Officially issued results of an appropriate test of English proficiency (see below); and
6. A completed Research Interests form.

The submitted material must be original documentation or official copies issued by the institution. Photocopies or notarized copies will not be accepted.

1.2 Academic Requirements

Candidates must hold a four-year baccalaureate or its academic equivalent from an academic institution recognized by the University of Alberta to enter this program.

The Department generally does not accept students with an overall grade point average of less than 3.0 on the last 2 years of academic study (normally the last 60 units of course weight).

1.3 Language Requirement

- The Department of Laboratory Medicine & Pathology requires proficiency in English prior to acceptance in the program.
- International applicants must submit a TOEFL, IETLS (Academic), PTE (Academic), MELAB or CAEL original score report to the Graduate Studies Coordinator with all application documents.
- The Graduate Student must have a minimum TOEFL score of 570 (paper-based) or the internet-based TOEFL score equivalent of 95 with at least 20 per section; a minimum IELTS (Academic) score of 7.0 with at least 6 on each band; a minimum PTE (Academic) score of 65; a minimum MELAB score of 91; or, a minimum CAEL score of 70 with at least 70 on each subtest.
- If the Graduate Studies Coordinator and Supervisor agree that the Graduate Student be accepted with a TOEFL score between 550 and 570 (or equivalent), it is understood that a remedial English course will be taken.

For complete details on Graduate Program Requirements, see the *FGSR Graduate Program Manual Section 5: Admissions* (<http://www.gradstudies.ualberta.ca/gradmanual/five.htm>)

2 GUIDELINES & RESPONSIBILITIES

2.1 Guidelines for Graduate Students

2.1.1 Graduate Student Guidelines

Graduate students are ultimately responsible for their own programs. They are expected to read the Calendar and any other relevant documents to become familiar with all regulations and deadlines relating to their program.

The student's fundamental responsibilities include:

- ensuring their registration is accurate and does not lapse;
- submitting appropriate forms to the department for signature and processing; and
- paying all fees required by the deadline dates set out in the Calendar.

2.1.2 Graduate Student Responsibilities

Graduate students should:

- make themselves aware of the contents of the Graduate portions of the University calendar and take responsibility for their own programs as set out in the Calendar for the various programs;
- maintain open communication with their Supervisor and the Graduate Studies Coordinator concerning any problem either real or perceived;
- inform the Supervisor regularly about progress, and provide the Supervisor with an annual report for distribution to the Supervisory Committee;
- make research results accessible (beyond their appearance in a thesis) to an appropriate audience;
- be aware of deadlines for possible scholarship applications, and seek advice and assistance from the department in making applications, etc.;
- follow and meet the regulations and requirements of the Faculty of Graduate Studies and Research, (FGSR) and the Medical Sciences Graduate Program Committee (MSGPC). This includes interdisciplinary students whose home department is not in the Medical Sciences Graduate Program.

2.2 Guidelines for Graduate Student Supervisors

By undertaking supervision of a Graduate Student you are agreeing to abide by the principles outlined in this document.

2.2.1 Qualifications of Graduate Student Supervisor

In the Department of Laboratory Medicine & Pathology, the Graduate Studies Coordinator recommends to the Medical Sciences Graduate Program Committee:

- the suitability of individual Faculty members to act as Graduate Student Supervisors; and
- the suitability of individual Faculty members to sit on Supervisory Committees.

The following are general guidelines for the qualification of Graduate Student Supervisors, which complement the FGSR Guidelines, presented in the *FGSR Graduate Program Manual*. The prospective Supervisor:

- should have a successful record of graduate supervision;
- must have adequate time to supervise each prospective Graduate Student;
- must be capable of supervising the number of Graduate Students proposed;
- should normally have adequate research funding for the proposed project, of a type that ensures the academic freedom of Graduate Students;
- must have the necessary facilities and resources available for Graduate Student research and provide an appropriate academic environment.

2.2.2 Co-supervision

Co-Supervision for New Supervisors

For prospective Supervisors lacking experience in graduate supervision, it is the policy of the Department of Laboratory Medicine & Pathology that an experienced faculty member is required to co-supervise the Graduate Student. The Supervisor is required to identify the Co-supervisor within the graduate student's first term and to notify the LMP Graduate Program Office. The Graduate Coordinator or Department Chair must approve the choice.

- A co-supervisor must be appointed for any faculty member supervising his or her first graduate student for the duration of that student's program.
- A co-supervisor must also be appointed for any faculty member supervising his or her first PhD student for the duration of that student's program.
- The appointed co-supervisor must have graduated a student from the University of Alberta.
- The role of this senior co-supervisor is dual. The co-supervisor acts to assist, or to mentor, the new Supervisor when needed, and also acts as a secondary source of support to the student.
- It is advantageous if the co-supervisor is familiar with the area of research to be conducted by the student, however the co-supervisor's role is not necessarily to direct the research. In that regard, it should be noted that a co-supervisor is not automatically a co-author on publications associated with the co-supervised Graduate Student. As for all publications, co-authorship should reflect a significant intellectual contribution to the manuscript.

Co-Supervision for Supervisors who are Adjunct to LMP

For Faculty members who are adjunct to our department and who are supervising a student in our department for the first time, it is the policy of the Department of Laboratory Medicine & Pathology that a Co-supervisor be appointed for the duration of that Graduate Student's program. For any subsequent students supervised in this department, requirement of a co-supervisor is subject to the discretion of the Graduate Studies Coordinator or Department Chair.

The Supervisor is required to identify the Co-supervisor within the graduate student's first term and to notify the LMP Graduate Program Office.

- This Co-supervisor must be primarily appointed to Laboratory Medicine & Pathology and must have graduated a student in the Department of Laboratory Medicine & Pathology at the University of Alberta.

- The purpose of the co-supervisor is primarily to ensure that the student's program proceeds according to Departmental policies, which may not be familiar to the adjunct supervisor.
- It is advantageous if the co-supervisor is familiar with the area of research to be conducted by the student, however the co-supervisor's role is not necessarily to direct the research. In that regard, it should be noted that a co-supervisor is not automatically a co-author on publications associated with the co-supervised Graduate Student. As for all publications, co-authorship should reflect a significant intellectual contribution to the manuscript.

2.2.3 Graduate Student Supervisor Responsibilities

The Supervisor is directly responsible for the supervision of the Graduate Student's program. In this capacity, the Supervisor assists the Graduate Student in planning a program, ensures that the Graduate Student is aware of all program requirements, degree regulations, and general regulations of the department, the Medical Sciences Graduate Program and the Faculty of Graduate Studies and Research (FGSR), provides counsel on all aspects of the program, and stays informed about the student's research activities and progress.

The Supervisor is also charged with ensuring that Graduate Students conduct their research in a manner that is as effective, safe, and productive as is possible.

The Supervisor must prepare a program of studies for the Graduate Student, arrange for and attend all supervisory committee meetings and examinations, ensuring that these are scheduled and held in accordance with FGSR regulations, and must review the thesis both in draft and in final form.

Once a year, the Graduate Coordinator will present an information session for supervisors. It is *mandatory* that Supervisors attend this session at least once every 2 years. Attendance will be forwarded to the Chair of the Department for consideration at the time of annual reviews.

Specifically, it is the responsibility of the Graduate Student Supervisor to:

- evaluate the Graduate Student's previous academic experience, and recommend courses the Graduate Student should take to ensure a solid and appropriate academic background is in place for the research to be undertaken.
- provide an environment for the Graduate Student that is conducive to research, and in which the Graduate Student can grow intellectually.
- ensure that appropriate financial support for the Graduate Student's stipend is in place, or that sources of funding are available for the Graduate Student to apply for where applicable. (See Section 2.2.4 Graduate Student Financial Support)
- ensure that there are sufficient financial resources and materials for the research program of each Graduate Student being supervised.
- ensure that the Graduate Student is aware of his/her responsibilities (as listed previously) and, when necessary, assist the Graduate Student in meeting them.
- provide appropriate guidance to the Graduate Student on the nature of the research and on the standards expected.
- be accessible to give direction, advice and constructive criticism.
- establish, with the Graduate Student, a realistic timetable for completion of various phases of the program.

- establish, with input from the Graduate Student, a Supervisory Committee within one year of the Graduate Student starting the graduate program.
- ensure that the Supervisory Committee maintains contact and formally meets with the Graduate Student at least once a year.
- inform and communicate to the Graduate Studies Coordinator, Student and Supervisory Committee members regarding all meetings, examinations and any circumstances that arise with regard to the Student's graduate program.
- set up Committee meetings and examinations in consultation with the Graduate Student, and with the Graduate Student's full knowledge.
- complete all relevant forms, including signatures, and submit them to the Graduate Studies Coordinator.
- if going on leave or absent for an extended period, advise the Graduate Studies Coordinator and Medical Sciences Graduate Program Committee (MSGPC) which member of the Supervisory Committee will be the Acting Supervisor.
- if a PhD proposal is not submitted within the recommended time frame (normally by the end of the second year of the PhD program), forward a written explanation and timeline for submission to the Graduate Coordinator and the Chair of the MSGPC. This includes interdisciplinary students whose home department is not in the Medical Sciences Graduate Program.
- ensure, in consultation with the Graduate Studies Coordinator and the Chair of the MSGPC as required, that the subject matter of the student's PhD proposal falls within the broad context of the Medical Sciences Graduate program.
- ensure that all members of the Supervisory Committee have signed off and approved the PhD research proposal.
- ensure that all a signed a statement approving the suitability of the thesis for examination is submitted to the Graduate Studies Coordinator prior to submission of the final oral examination form.

2.2.4 Graduate Student Financial Support

All Supervisors are responsible for the financial support of Graduate Students under their supervision.

- After a Graduate Student chooses a research Supervisor, financial support will be provided from either an operating grant, an independent award to the Graduate Student, the department budget, or a combination of these.
- The Graduate Studies Committee recognizes a need to maintain a competitive level of funding for our graduate students (~\$19,000/a). Supervisors are encouraged to follow these approved Departmental guidelines for funding and the awarding of major and minor awards:
 1. The supervisor must ensure that the student receive a minimum stipend of \$17,500 per year (or the equivalent of the Tricouncil Canada Graduate Scholarship Master's award).

For students earning a major award:

2. Major awards are administered according to the rules of the awarding agency. However, if the student earns **major awards of less than \$19,000**, the supervisor must ensure that the student receives a stipend in an amount which

ensures annual funding of at least \$19,000 (or the equivalent of the Tricouncil CGS Master's award + \$1500) for the duration of the major award.

For students earning a major award and minor awards:

3. The rules as written in (2) still apply, and the supervisor may not scale back the balance of the base stipend when minor awards are earned by the student.

For students without a major award, but earning one or more minor award:

4. If the student earns **minor awards totalling \$1500 or less per year**: the supervisor may not reduce the student's base stipend by any amount.
5. If the student earns **minor awards totalling more than \$1500 per year**: the supervisor, at his/her discretion, may reduce the base stipend by some fraction of the scholarship amount exceeding \$1500. The department suggests a 50% fraction so as to encourage students to apply for awards while also recognizing the needs of supervisors to fund laboratory activities in support of the student's research.

e.g. Student receives a base stipend of \$17,500. After receiving two minor awards of \$1000 and \$1500 (total \$2500), the supervisor at his/her discretion may reduce the student's stipend by some fraction of \$2500- $\$1500=\1000 . Assuming 50%, the student's base stipend would then be \$17,000; along with the \$2,500 in awards, the student would be receiving a total of \$19,500.

- It is the Graduate Student's responsibility to apply for appropriate external funding, and it is the Supervisor's responsibility to facilitate those applications in a timely fashion. For further information regarding student awards, please see Section 4 Student Awards and Scholarships.
- On the rare occasion that a Supervisor has to let a Graduate Student go because of financial exigency, they are not permitted to take on a new Graduate Student for at least one calendar year. Supervisors must make students aware of their financial situation and their ability to support the Graduate Student for their graduate career.

2.2.5 Equality and Respect

Supervisors should be reminded that Graduate Students are fellow academics and should be treated with respect.

Graduate Students should not be viewed as "a pair of hands" and supervised only on the technical aspects of their project.

Graduate Students need time to study for courses, prepare for candidacy exams, write papers and read the literature; and

Graduate Students should also be encouraged to participate in activities that enhance their academic experience such as attending seminars, meeting with seminar speakers, participating in the Graduate Student organizations, attending conferences, and developing their skills and experience in teaching and mentoring.

2.2.6 Student / Supervisor Conflicts

Unfortunately, there can be situations where Graduate Students and Supervisors have conflicts. If a conflict arises:

- The first step is for the supervisor to sit down with the Graduate Student and try to identify the source of the problem and create a solution.

- If this cannot be done, then a Supervisory Committee meeting must be called and the committee should try to resolve the conflict.
- If no resolution is met, then the situation is brought before the Graduate Studies Coordinator for appropriate action.
- At any time, contact the [Student OmbudService](#)

2.3 Guidelines for Graduate Student Supervisory Committee

2.3.1 Composition and Qualification of Supervisory Committee Members

As minimum criteria, Supervisors and Supervisory Committee members must:

- normally be full-time faculty;
- be active in the general area of the Graduate Student's research;
- have a tenured (or tenure track) faculty appointment (including soft tenure track faculty appointments such as University Research Fellows and Heritage Scholars) in a department relevant to the field;
- hold a degree equivalent to or higher than that for which the student is a candidate (this would always be the case for newly appointed faculty, but certain recognized and well-established exceptions will be respected);
- demonstrate continuing scholarly or creative activity of an original nature.

The determination of "scholarly or creative activity" assumes a continuing peer review process that, at least indirectly, is included annually at the appropriate Faculty Salaries and Promotions Committee. The following list summarizes criteria used by various faculties to describe scholarly or creative activity:

- publication of research papers in refereed journals;
- publication of research papers in journals acceptable to the discipline;
- publication of books and/or monographs;
- publication of research findings in conference proceedings;
- peer recognition of outstanding professional practice;
- invitations to speak at conferences or at other institutions;
- editorial or refereeing responsibilities for journals;
- invitations to serve as external examiner for the PhD;
- presentations at professional society meetings or workshops;
- invitations to review grant proposals or manuscripts; or
- invitations to referee requests for promotions to full professor in recognized institutions.

Relationships between Graduate Studies Coordinators and the staff and Graduate Students in their program(s) should be academic. Any personal relationships that alter or affect this academic relationship may constitute a conflict of interest (e.g., familial or intimate relationship, business relationship). In accord with General Faculty Council policy, any possible conflict of interest should be disclosed. Persons may not act as Supervisor, Supervisory Committee member or Graduate Studies Coordinator for matters in which they have a conflict of interest.

2.3.2 Graduate Student Supervisory Committee Responsibilities

- Is accessible to the Graduate Student for consultation;
- Provides guidance and advice to the Graduate Student based on their area of expertise;
- Participates in regular committee meetings;
- Recommends and approves courses for the Graduate Student;
- Approves the Graduate Student's research proposal before submission to the Graduate Studies Coordinator;
- Signs a statement approving the suitability of a doctoral thesis for examination prior to submission of the final oral examination; and
- Participates in candidacy and/or final oral examinations.

2.4 Graduate Studies Committee Roles and Responsibilities

The role of the Graduate Studies Committee is to:

- promote and enhance graduate studies;
- set policy as defined in the LMP *Graduate Program Handbook*;
- review and make decisions as necessary regarding admissions, graduate student supervisors, and student awards;
- assist in monitoring graduate student progress; and
- assist in the informal appeals or grievance processes.

The graduate program in Laboratory Medicine & Pathology is administered by the Graduate Studies Committee which normally consists of the Department Chair, the Graduate Studies Coordinator, the Department APO, 4 additional faculty members (where at least 2 must be actively supervising graduate students), and 1 graduate student representative. All members of the Graduate Studies Committee are appointed by the Department Chair for a defined term of service.

2.5 Medical Sciences Graduate Program Committee

The Department of Laboratory Medicine & Pathology is a member department of the Medical Sciences Graduate Program. The Medical Sciences Graduate Program Committee (MSGPC) responsibilities are to:

- enhance the quality of graduate studies within member departments by facilitating excellence in all aspects of graduate education;
- act as the official graduate program representative for member departments to the FGSR;
- set policy for graduate programs in member departments;
- establish and update strategic plans for continued improvement of the Medical Sciences Graduate Program;
- assess the quality and appropriateness of the Students' graduate programs;

- ensure that the minimum admission requirements, course requirements, residency requirements, and length of program requirements are met;
- maximize the opportunities for the Graduate Students to succeed;
- assess PhD program packages with one of the following outcomes: approval; approval with conditions; resubmission after revision or presentation to the MSGPC; rejection;

The Chair of the MSGPC:

- is accessible for consultation with Graduate Students, Supervisors and Graduate Studies Coordinators;
- is a member of FGSR Council;
- communicates relevant information from FGSR to Committee Members;
- approves applications for graduate studies before forwarding to FGSR;
- may attend candidacy and final oral examinations as an observer;
- approves the appointment of Supervisors, Supervisory Committees and examining committees before submission to FGSR;
- informs the Associate Dean (Research) on the status of the Medical Sciences Graduate Program, and on issues related to graduate studies.

3 GRADUATE PROGRAM

3.1 Program Requirements

3.1.1 Academic Standing and Grades

- The normal passing grade for graduate courses is C+ (2.3); as a minimum, Graduate Students must also maintain a cumulative program grade point average of 2.7 throughout their program.
- If the cumulative grade point average falls between 2.3 and 2.7, departments may recommend termination of program or continuation in the program for a specified probationary period.
- Notwithstanding the above, a Graduate Student whose academic standing falls below a grade point average of 2.7 may be required to withdraw at any time.

3.1.2 Residency Requirements

The objective of the residency requirement is to allow Graduate Student interactions in an academic setting:

- to facilitate frequent and close interactions with their Supervisor and Supervisory Committee;
- to provide opportunities for Graduate Students to present and defend their ideas in appropriate forums;
- to develop a 'culture' of contribution, analysis, and interpretation;
- for progressive development of their research program;
- for easy access to lectures, presentations and seminars that increase the student's understanding in general and specific areas; and
- to broaden their interactions within the University community.

Master's Program

- The Master's program has a one academic year full-time residency requirement (where an academic year is defined as the eight month period from September through April).

Doctoral Program

- The residency requirement for the PhD programs is two academic years full-time (where an academic year is defined as the eight month period from September through April).

Where a Graduate Student's research projects are conducted off-campus, or where, for other reasons, the Graduate Student does not have a fulltime presence on campus for these opportunities, the Supervisor, Supervisory Committee and the Graduate Studies Committee must resolve how the residency objectives will be met during the student's graduate program. Additionally, the PhD proposal package submitted to the MSGPC must explicitly state how these objectives will be met during the student's PhD program.

Note that students who are admitted to any thesis-based degree program and who initially register as full-time students in these programs must register full-time for the remainder of their program.

3.1.3 *Time Limits for Completing Programs*

Graduate Students are required to complete their degree requirements within a set time frame.

Master's Program

- The minimum length of the MSc program is a minimum of 24 units of course weight including thesis registration, to a maximum of four years, depending on the research undertaken.

Doctoral Program

- The minimum length of the PhD program is a minimum of 36 units of course weight including thesis registration, to a maximum of six years, depending on the research undertaken.

Note: Master's students who are reclassified as doctoral program must complete all degree requirements within six (6) years from their first term of registration as a Master's student. Any time spent as a qualifying Graduate Student is not counted in the time limit for completion.

3.1.4 *Thesis Requirement and Preparation*

All candidates in the MSc and PhD program must present a thesis embodying the results of their research and the topic must be approved by the candidate's Supervisor and Supervisory Committee.

- A Master's Thesis should reveal that the candidate is able to work in a scholarly manner and is acquainted with the printed works published on the subject of the thesis. As far as possible, it should be an original contribution.
- A Doctoral Thesis must embody the results of original investigations and analyses and be of such quality as to merit publication; furthermore, it must constitute a substantial contribution to the knowledge of the candidate's field of study.

For further information on Thesis Preparation please see the Guidelines for the Final Examination and Thesis in Section 7.1 of this handbook or visit Thesis Requirement & Preparation (<http://www.gradstudies.ualberta.ca/degreesuperv/thesis/index.htm>) at the Faculty of Graduate Studies and Research website.

For those students whose programs began **prior** to September 2011, **Thesis 919** was established to ease tuition costs for full-time, continuing doctoral and master's thesis students in the latter years of their program. Thesis 919 is a reduced fee thesis course with a flat-rate instructional fee. To be eligible, Graduate Students must be in a non-cost recovery doctoral or master's thesis program, have been registered as a full-time student in their program for a minimum of four (for PhD) or two (for MSc) Fall and/or Winter terms and have been assessed at least 18 units of fee index in each of those terms.

Upon completion of their program, both Master's and Doctoral students must supply the Department of Laboratory Medicine & Pathology with an unbound copy of their thesis. The department will arrange for and incur the cost of the binding. A hard copy of the final thesis document must accompany the signed "Thesis Approval / Program Completion" form when it is submitted to the department's Graduate Program office. Without the hard copy, the form will not be forwarded to the Medical Sciences Graduate Program or the Faculty of Graduate Studies and Research.

3.1.5 Ethics and Academic Integrity Training Requirement

As of September 1, 2004, Ethics and Academic Integrity Training is mandatory for all newly-admitted University of Alberta Graduate Students. Eight hours of training is required.

The Department of Laboratory Medicine & Pathology (LMP) Graduate Studies Committee has determined that the Ethics and Scientific Integrity (ESI) Day offered by the Faculty of Medicine and Dentistry is a mandatory component of this training for LMP students. The ESI Day supplies 5 hours training.

For students whose program began in Winter 2009 or later, the remaining three hours of training is completed by the successful conclusion of the mandatory course LABMP 530.

For students whose program began prior to Winter 2009, the remaining three hours of training may be obtained by completing any one of the following:

- Graduate Ethics Training (GET) via webCT
(See <http://www.gradstudies.ualberta.ca/degreesuperv/ethics/index.htm>)
- LABMP 530 or LABMP 535
- Another graduate level university ethics course or course with ethics components (PHS 543, PHIL 550, MED 650, INT D 670, INT D 570 or others as approved by the LMP Graduate Studies Committee)
- Submission of a completed ethics review application to an established Human or Animals Research Ethics board.
- HSLAS (Health Sciences Laboratory Animal Services) training course
- Tri-Council ethics tutorial: <http://www.pre.ethics.gc.ca/english/tutorial/welcome.cfm>

It is the responsibility of the Graduate Student to register for these sessions and to submit documentation of completion of these sessions to the Graduate Coordinator.

3.1.6 Required Coursework

The minimum required coursework for Graduate Students registered in the Department of Laboratory Medicine & Pathology are the following:

- PhD students are required to take 12 units of course weight (credits) of graded, graduate-level courses, or approved equivalent. For Graduate Students entering the PhD program after completing a MSc degree, the minimum course requirement is 6 credits of graded graduate-level courses.
- MSc students are required to take 9 units of course weight (credits) of graded, graduate-level courses, or approved equivalent.

The Supervisor and the Supervisory Committee will establish the required courses that a Graduate Student must complete during their program. Graduate Students may be required to take more than the minimum number of courses in order to address deficiencies in their prior training, or to provide background training that is essential for the completion of their degree programs.

Approved courses for the Medical Sciences MSc and PhD programs are listed on the MSGP webpage at <http://www.med.ualberta.ca/Home/Education/MScPhD/MSGP/courses.cfm> . If you have any questions regarding courses not on this list, please contact the LMP Graduate Studies Coordinator.

In addition to the above mentioned graded, graduate-level courses, all students (MSc and PhD) are required to take a mandatory course (either LABMP 520 or LABMP 530) along with

presentation and/or seminar requirements. The track followed is determined by the student's start date.

Students whose program began in Fall 2007 or earlier must follow the LABMP 520 Track.

Students whose program began in any term of 2008, by agreement of the LMP Graduate Studies Committee, may follow either the LABMP 520 Track or LABMP 530 Track.

Students whose program began in Winter 2009 or later must follow the LABMP 530 Track.

LABMP 520 Track

Students must register in LABMP 520 in their first full year. To receive credit, students must attend 80% of the department Rounds during the Fall/Winter terms and must make a 30 minute presentation at Rounds on a topic related to their thesis work. Students can either present their own data, a review on the topic of their thesis work, a summary of their thesis proposal, or a combination of these three.

In addition to the rounds presentation required for LABMP 520, PhD students are required to make one other oral presentation either at LMP Rounds or at Macgregor Research Day. Student LMP Rounds presentations are scheduled for half an hour, generally a 25 minute presentation followed by a short question period. Students are expected to present their own research data.

LABMP 530 Track

In addition to taking the mandatory course LABMP 530 in their first full year, students must also (1) make one or more oral presentations as specified by the Department, and (2) attend specified seminars:

- (1) Master's students are required to make one oral presentation to the department at LMP Rounds. PhD students, in addition to the public presentation which is part of their final exam, must make two oral presentations to the department during the course of their program: one of these presentations must be at LMP Rounds and the other at either LMP Rounds or at Macgregor Research Day. Student LMP Rounds presentations are scheduled for half an hour, generally a 25 minute presentation followed by a short question period. Students are expected to present their own research data.
- (2) Students are also expected to attend all LMP Rounds presentations. Attendance at 50% of Rounds presentations each year of the student's career in LMP is required to ensure continuation in his or her program. To record their attendance, students are responsible for signing the log book that will be found in the seminar room. Failure to sign the logbook will not be accepted as a reason for failing to meet the attendance requirement.

3.1.7 Professional Development

FGSR has recognized that "Professional Development (PD) for graduate students is becoming an increasingly important factor to funding agencies and future employers. They are looking for graduate students who display great communication and interpersonal skills, creativity and imagination, teaching competence and leadership abilities." (*Professional Development Record Book*, FGSR)

To facilitate professional development in our students, Laboratory Medicine & Pathology has decided to include PD as an important part of its program. It was agreed that, because students have varied backgrounds and needs, PD should not be made a formal element of the program. However, a PD section will be added to the Supervisory Committee meeting report form for students enrolled as of 2008 and it is expected that a professional development plan will be developed by each student. This plan will be reviewed annually as part of the supervisory committee meeting process.

Professional Development activities include but are not limited to:

- Attendance at professional development sessions
- Development and maintenance of a CV or resume
- Development of a Research Dossier
- Development of a Teaching Dossier
- Participation in community service and volunteer activities
- Exploring and tracking career opportunities
- Compilation of reference letters or a reference contact list

The mandatory course LABMP 530 contains a module on professional development that will introduce the students to methods of tracking their activities beyond the traditional CV. Each student will be required to develop a PD plan that will support their career goals.

3.2 Supervisory Committee Meetings

It is ultimately the responsibility of the Supervisor to ensure that the Graduate Student has annual supervisory committee meetings.

Annual meetings are considered to be minimal and if possible, more frequent meetings are encouraged.

Supervisory committee meetings are to be chaired by the Supervisor; however, a request can be made to the LMP Graduate Studies Coordinator to select a Chairperson for the Supervisory Committee Meeting other than the Supervisor.

Requests can be made by the Graduate Student, Graduate Studies Coordinator, Supervisor, Supervisory Committee members, or the Chair of the Department of LMP. It shall be at the discretion of the Graduate Studies Coordinator if this request is to be granted after consultation with the necessary individuals.

Supervisors must record the events of the meeting using the departmental form "[LMP Graduate Student Supervisory Committee Meeting Report](#)".

Once the form is complete and signed by the Supervisor, it should be read and signed by the Graduate Student and the other committee members. This will ensure that both the Supervisor and the Graduate Student have the same interpretation of the events of the meeting.

Submit the completed meeting form, along with a copy of the student's report to the committee and the student's current CV, to the Graduate Studies Coordinator within 7 days after the meeting.

The Report is particularly important when decisions such as when to write the thesis are made. Filling out the form can save the Supervisor and Graduate Student from potential conflicts later.

The Graduate Student should be made aware at each supervisory committee meeting whether they are making satisfactory or unsatisfactory progress.

3.2.1 Recommended Format

- A. Seven days prior to the meeting the student will provide all members of the supervisory committee with a short Progress Report. This report should be approximately four pages in length and deal succinctly with the following issues:
 - Background
 - Project objective

- Hypotheses being tested since the last meeting
- Summary of research progress
- Difficulties or issues that have impeded progress (if any)
- Hypotheses to be tested in next 6-12 months
- Append list of courses taken (or being taken with grade attained)
- Copies of title page and abstract of any published papers, submitted manuscripts or abstracts written since last meeting.

B. The meeting format should generally follow the format described below:

- Brief overview of Graduate Student's progress by the Supervisor (~5 minutes)
- Graduate Student's presentation of research results (~20 minutes)
- Questions and answers
- Graduate Student presentation of hypothesis to be tested in the following 6-12 months
- Discussion of the objectives and proposed approaches
- Graduate Student presentation of proposed difficulties
- Discussion of how best to deal with the issues raised above.

C. The objectives of the meeting are:

- Keep committee members apprised of progress
- Assess the project results and progress
- Define problems in the project and, in a positive fashion, find creative solutions
- Review the project objectives and focus.

3.3 Teaching

To replace the now defunct University Teaching Program, the Faculty of Graduate Studies and Research (FGSR) has reintroduced a series of teaching workshops prior to the start of the Fall and Winter term.

A Faculty of Medicine and Dentistry (FoMD) initiative has also moved ahead offering a number of teaching workshops, open to both students and faculty. Currently, students will track their attendance at FoMD workshops on a formal record sheet that is signed off after the session. A letter will be provided to the participating students to indicate what type of training sessions they have attended, which will be helpful if the student wishes to obtain a teaching position.

Efforts are ongoing to try to coordinate an integrated program with FGSR, where some sessions are offered by FGSR, and other complementary sessions (such as microteaching) are offered within FoMD.

4 Student Awards and Scholarships

4.1 Faculty of Graduate Studies and Research

For information on Graduate Student Awards and Scholarships, please see FGSR's Awards and Funding website at <http://www.gradstudies.ualberta.ca/awardsfunding/index.htm>.

4.2 Bell McLeod Educational Fund Travel Award

The Bell McLeod Educational Fund Travel Award is available exclusively for Laboratory Medicine & Pathology (LMP) graduate students. Travel for educational purposes will be funded once per master's degree and twice per doctoral degree to a maximum of \$800 per event. To be eligible for the award, the student must be making an oral or poster presentation at an event, participating in field work, or visiting a major archive where information critical to their thesis research is lodged or where resident experts can be consulted.

- If the student is attending a conference, proof must be submitted with the application that a submitted oral or poster paper has been accepted for presentation by the conference organizers.
- If applicable, attach a copy of the Conference Registration Form outlining the cost of registration and what is included (meals, accommodation, etc.).
- If the student is requesting travel funds for field work or research purposes, a compelling statement from his or her supervisor explaining why the proposed travel is crucial to the student's program must be appended.

Applications may be submitted at any time.

4.3 DynaLIFE_{dx} Graduate Research Prize

- **\$5000** per year allocated
- **Possibly two \$2500** awards presented annually to MSc or PhD students.
- A recent peer-reviewed publication by the student would be the focus, but the student's whole CV will be considered in the adjudication.
- The research prize would be awarded publically, either at the annual research day, or the mid-winter party.

Applications: Applications will normally be due August 31. Any student who is/was in our program during the previous year (September 1 – August 31) is eligible for this award. The paper must have been accepted for publication during the previous 12 months (September 1 – August 31)

4.4 DynaLIFE_{DX} Major Incentive Award

- To encourage more applications for major studentships (Tri-Council, and Alberta Innovates), **\$5000** will be earmarked annually to distribute among students that meet all requirements for a major studentship, but whose applications were declined.

No separate application is required. A call will be issued annually for copies of declined applications and the official decision letter from the funding agency, with documents due at the department Graduate Program office on August 31. If the application was declined at the University level rather than by the funding agency, then the student is asked to supply a supplemental paragraph (150 words maximum) telling us why they believe they meet the minimum requirements of the scholarship.

4.5 Graduate Research Fund Assistantship (GRAF)

LMP graduate students may also apply for the Graduate Research Fund Assistantship (GRAF). Students will be invited to submit applications once per year.

The Graduate Research Assistantship funds available to Laboratory Medicine & Pathology will be divided equally amongst all graduate students who do not receive any direct tuition support from any internal or external source (e.g. Walter H. Johns, President's Doctoral Prize of Distinction, etc.)

"Direct tuition support" is defined as support whose intended purpose is payment of tuition. External support does not include such things as funds from parents, benefit plans, RESPs, savings, student loans, etc.

Students will be requested to apply for the award based on the stated eligibility requirements. The award application form will require the student to sign a statement indicating that they receive no direct tuition support.

The funds will be divided equally among all eligible applicants once per year.

4.6 Other Awards

For information about other awards, please see the LMP Awards & Funding webpage at <http://lmp.med.ualberta.ca/Education/graduate/Pages/Awards-and-Funding.aspx>

5 PHD PROPOSAL

5.1 PhD Proposal Requirements

The Medical Sciences Graduate Program strives for excellence in graduate studies, where Graduate Students are highly motivated to make original contributions in science and to complete their PhD program with peer-reviewed publications. As a member department of the Medical Sciences Graduate Program, the Department of Laboratory Medicine & Pathology utilizes the expertise of this body to review and approve all proposals from PhD students registered in our program.

PhD students must submit a PhD Proposal package to the MSGPC following the completion of the majority of their course work and within the first 2 years of the start of their program. If the proposal is not submitted within this timeframe, a written explanation and timeline for submission should be forwarded to the Graduate Coordinator and the Chair of the MSGPC from the Supervisor. (This includes interdisciplinary students whose home department is not in the Medical Sciences Graduate Program).

5.2 PhD Proposal

The proposal will contain:

- a review of the pertinent literature,
- the research hypothesis,
- the specific objectives of the research,
- a review of the relevant work done previously by the student or the research group on the subject,
- a detailed presentation of the planned experimental approach, and
- the significance of the anticipated results.

The planned experimental approach will present the actual work proposed by the student and will not contain work or anticipated work that will not be conducted by the student.

The thesis proposal is to be written by the student. The thesis proposal must be entirely the student's own creation, although she/he can utilize the supervisor's guidance and/or the expertise in the department or on campus to explore ideas and obtain specific background or technical information. Individuals external to the Supervisory Committee may also review the draft of the thesis proposal.

5.3 The PhD Proposal Package

The Medical Sciences Graduate Program Committee (MSGPC) requests the proposal package consist of the following information, in the following order:

1. Student's academic record, both U of A transcripts and other institutions if applicable.
2. The [proposal form](#) must be completed, stating
 - Supervisory Committee Members
 - Project Title
 - Student's completed and proposed coursework
 - Project's source of funding, including the name, duration and amount.
 - Supervisor's source of funding, including the name, duration and amount.
 - Student Publications

- Student Honours and Awards
 - Timeline of the PhD program, indicating supervisory committee meetings, proposed month of the candidacy examination and final oral examination
3. A statement (maximum 200 words), written by the supervisor, outlining the potential contribution to science of the student's PhD project.
 4. A proposal outlining the scope of the proposed research, using the following guidelines and including:
 - A written proposal which does not exceed four (4) pages, single spaced, size 12 Times New Roman font, and 1" or 2.5 cm margins. The proposal,
 - Must be written independently by the student
 - Must clearly and precisely illustrate the students role in the proposed research
 - Appendices - should be restricted to figures, legends, references, questionnaires and tables
 - A sign-off page with the Supervisor's, Supervisory Committee members' and Departmental Graduate Coordinator's signatures approving the proposal.

Please Note: Anything exceeding these guidelines will not be included for review
 5. Curriculum vitae forms for the supervisor and/or co-supervisor must be submitted with a maximum of 6 pages.

Proposals submitted must be accompanied by a **list of 5 potential reviewers outside the student's department in a sealed envelope**. This information is to be supplied by the Department Graduate Coordinator and will not be accepted if brought by the student unless it is in a sealed envelope signed by the Graduate Coordinator.

The original proposal package is submitted to the MSGPC, Office of Research, Faculty of Medicine and Dentistry.

If the Committee approves the proposal, the Graduate Coordinator, Supervisor and Student are notified in writing. If the Committee has concerns about any aspect of the proposal package, further clarification will be requested.

5.4 Assessment of the PhD Proposal Package

To ensure the quality of a Student's graduate program, the Medical Sciences Graduate Program Committee will assess all PhD students using the following four key attributes of a successful graduate program:

- The Graduate Student's background and readiness.
- The Supervisor and research environment.
- The Supervisory Committee and their contributions to the development of the Graduate Student.
- The scope, rigor and quality of the research project.

These four attributes are addressed in the PhD proposal package that the Graduate Student submits to MSGPC.

The Medical Sciences Graduate Programs Committee reviews the curriculum vitae information of the Supervisor and/or Co-Supervisor, and assesses whether they are appropriate to support the Graduate Student and his/her research, based on the recommendation of the Graduate Studies Coordinator of that Department.

The Supervisor is also assessed carefully, giving special consideration to the research environment, funding, accessibility and all other aspects mentioned in *Graduate Student Supervisor Responsibilities* (Section 2.2.3).

An expert Subcommittee reviews the Graduate Student's PhD proposal, and assesses the quality, scope and its potential contribution to the advancement of knowledge in that area of research. This Subcommittee will consist of a member of the MSGPC and at least one external member with appropriate expertise.

6 CANDIDACY EXAMINATIONS

6.1 Purpose of Candidacy Examination

The candidacy examination is comprehensive and addresses the qualifications of the Doctoral Graduate Student in terms of his/her ability to pursue and complete original research at an advanced level. The purpose of the exam is to assess the breadth of the candidate's knowledge in her/his general field of research, the candidate's knowledge of the technical aspects of the proposed thesis research and the candidate's reasoning and critical thinking abilities.

6.2 Candidacy Exam Document

To provide a foundation from which the Candidacy Examination Committee can frame their questions during the candidacy exam, the graduate student will prepare a written summary of his/ her proposed thesis research. The Candidacy Examination Committee is to consider the thesis proposal as a starting point for the examination. The candidacy examination is not a defense of the thesis proposal, however the student's understanding of the proposed research and experimental methods will be assessed (refer to Section 6.4).

The PhD proposal submitted to the MSGPC may be used as the basis for the candidacy examination thesis proposal. It is expected that the students will utilize the comments made during the external review of their MSGPC PhD Proposal to refine the thesis proposal that they will submit to the Candidacy Examination Committee. The main body of the document is to be no more than 5 pages (4 page MSGPC PhD Proposal plus 1 page to address comments from the MSGPC review) at single spacing (12 point Times New Roman font) with 1" margins. The student may include appendices containing questionnaires, legends, references, figures or tables. As per the guidelines in Section 5 (PhD Proposal), the proposal will contain:

- a review of the pertinent literature,
- the research hypothesis,
- the specific objectives of the research,
- a review of the relevant work done previously by the student or the research group on the subject,
- a detailed presentation of the planned experimental approach, and
- the significance of the anticipated results.

The planned experimental approach will present the actual work proposed by the student and will not contain work or anticipated work that will not be conducted by the student.

The Candidacy Examination thesis proposal is to be written by the student. This proposal must be entirely the student's own creation, although she/he can utilize the supervisor's guidance and/or the expertise in the department or on campus to explore ideas and obtain specific background or technical information. Individuals external to the Supervisory and Candidacy Examination Committees may also review the draft of the thesis proposal.

6.3 Format of Examination

The candidacy examination will normally last 2 to 4 hours, after which the voting members of the Candidacy Examination Committee will make a decision. The recommended protocol for the Candidacy Examination is included in Section 6.8. Students will be given 20 minutes at the start of the examination to give an oral presentation that summarizes the thesis proposal. The oral presentation will be followed by questions from the Candidacy Examination Committee. Each

member of the Candidacy Examination Committee should assess the student's performance against the evaluation criteria in Section 6.4.

6.4 Evaluation Criteria

FGSR stipulates that the graduate students must demonstrate "an adequate knowledge of the discipline and of the subject matter relevant to the thesis; and, the ability to pursue and complete original research at an advanced level." Members of the Candidacy Examination Committee will evaluate the graduate student against the following four general criteria:

- a. The graduate student has demonstrated effective written and verbal communication skills;
For example,
 - The graduate student answered questions with confidence and authority;
- b. The graduate student demonstrated an adequate knowledge of the scientific and technical concepts and principles in areas relevant to the proposed thesis;
- c. The graduate student demonstrated the critical thinking skills required to conduct original research;
For example,
 - The graduate student demonstrated understanding of how experimental design can be used to test hypotheses;
 - The graduate student demonstrated good problem-solving/reasoning skills;
- d. The graduate student demonstrated an understanding of the significance and relevance of their proposed research.

6.5 Timelines

Graduate Students are eligible to take the candidacy examination after the Medical Sciences Graduate Committee approves their PhD Proposals. Doctoral students must submit their proposals to the MSGPC following the completion of the majority of their course work and within the first 2 years of their program (see Section 5 – PhD Proposal).

Graduate students must complete the candidacy examination within 6 months of their PhD proposals being approved by the MSGPC. If the proposal is not submitted within this timeframe, a written explanation and timeline for submission should be forwarded to the Graduate Coordinator. Normally, the candidacy examination will occur within the first 30 months of the student's graduate program. Pursuant to FGSR policy, graduate students must complete the candidacy examination 6 months before their expected oral final examination.

Once the schedule for the examination is agreed upon by the supervisory committee, the following steps will need to be taken:

- a. A Candidacy Examination Committee and the Candidacy Examination Chair is recommended to the Graduate Program Coordinator by the supervisory committee;
- b. The completed [Notice and Approval of Doctoral Candidacy Examining Committee](#) form must be submitted to the graduate program office **at least 4 weeks** prior to the proposed examination date. If you wish the assistance of the LMP Graduate Program office in preparing the forms, please allow sufficient extra time. This form is sent to MSGP and FGSR for approval;

- c. A copy of [Instructions To Candidacy Examination Committee](#) will be provided to all members of the Candidacy Examination Committee;
- d. The Candidacy Exam document must be submitted to the Candidacy Examination Committee **at least 2 weeks** before the scheduled examination to allow for circulation to all committee members, including the examiner(s) external to the department; and
- e. One week prior to the candidacy examination, it is the graduate student's responsibility to meet with the Examination Chair to review the logistics of the examination.

The Chair of the Examination Committee will submit the completed [Report of Completion of Candidacy Examination](#) form and his/her minutes of the examination to the Graduate Program office within 7 days of the completion of the Candidacy Examination.

6.6 Composition of the Candidacy Examination Committee

The Candidacy Examination Committee will consist of a minimum of five faculty members meeting the following requirements. Roles of members (except the chair) can be in any combination.

- The Supervisory Committee and normally the addition of two other faculty members
- At least one member must be from outside the Department of Laboratory Medicine & Pathology (i.e. have no adjunct affiliation or cross-appointment)
- There must be a minimum of two arm's length members who are not members of the student's Supervisory Committee
- Must be chaired by a faculty member in the Department of Laboratory Medicine & Pathology who is not the supervisor (or co-supervisor)

All members must attend the examination.

The Graduate Studies Coordinator will consider the recommendation of the student's Supervisory Committee when appointing the extra-supervisory committee members of the Candidacy Examination.

The Examination Chair's role is to moderate discussion, keep minutes of the examination, ensure that a fair examination occurs and file the necessary report concerning the outcome of the examination. If the chair is not a member of the examining committee (FGSR encourages this arrangement), the chair does not vote.

The Chair of the Department of Laboratory Medicine & Pathology and/or the Chair of the Medical Sciences Graduate Program Committee, if not already members of the Candidacy Examination Committee, are invited to participate in the exam as non-voting members. The Dean or Associate Dean of FGSR or the Dean's designate may attend and participate fully in the examination. Any other persons must have permission of the Dean to attend the examination.

6.7 Candidacy Examination Outcomes

Upon completion of the Candidacy Examination, the Committee must recommend one of the following outcomes:

- a. **Pass:** If the student passes the candidacy examination, the department shall complete the [Report of Completion of Candidacy Examination](#) form and submit it to FGSR. The date of completion of the candidacy examination will be recorded as the date that the student completed the exam.
- b. **Conditional Pass:** If the Candidacy Examination Committee agrees to a conditional pass for the student, the Chair of the Examining Committee shall provide in writing to the Associate Dean, FGSR and the student:
 - i. The reasons for the recommendation;
 - ii. Details of the conditions;
 - iii. Timeframe for the student to meet the conditions;
 - iv. The approval mechanism for meeting the condition, i.e. approval of the committee chair or supervisor, or approval of the entire examination committee, or select members of the committee;
 - v. The supervision and assistance the student can be expected to receive from the examination committee members.

Once the Candidacy Examination Committee has agreed that the conditions have been met, the department shall complete the [Report of Completion of Candidacy Examination](#) form and submit it to FGSR. The date of completion shall be the date that all conditions were met by the student.

- c. **Fail:** If the Candidacy Examination Committee agrees that the student has failed the examination, the Committee Chair shall provide the reasons for this recommendation and the department's recommendation for the student's program in writing to the Associate Dean, FGSR and to the student. For failed candidacy examinations, the Associate Dean, FGSR, normally arranges to meet with the student and with the department representatives before acting upon any department recommendation. A decision of FGSR which affects a student's academic standing (i.e. required to withdraw or transfer to a Master's program) is appealable.

The following options are to be considered by the examination committee when the outcome of a student's candidacy examination is "fail":

- i. **Repeat the Candidacy Examination:** If the student's performance on the candidacy examination was inadequate but the student's performance and work completed to date indicate that the student has the potential to perform at the doctoral level then a recommendation to repeat the candidacy examination should be considered.
- ii. **Change of Category to a Master's Program:** If the student's performance on the candidacy examination was inadequate and the student's performance and work completed to date indicates that the student has the potential to complete a Master's program then this should be considered.
- iii. **Termination of the Doctoral Program:** If the student's candidacy examination performance was inadequate and the work completed during the program was considered inadequate then termination should be considered.

6.8 Candidacy Exam Protocol

The Department recommends the Examining Committee use the following protocol for the Candidacy Exam:

1. At the beginning of the exam, the Chair introduces the Graduate Student and the Candidacy Examination Committee members.
2. The candidate will then be asked to leave the room and the committee will review his/her undergraduate background and graduate coursework. The Supervisor needs to supply all copies of all transcripts to all committee members to allow the committee to review the Graduate Student's academic record.

Note: There is no substantial input from the Supervisor at this time, although the Graduate Student and Supervisor will need to supply a 1-2 page CV for the student. The discussion of the Graduate Student's research and progress to date will occur at the conclusion of the exam.

3. The Candidacy Examination Committee discusses and agrees upon how the exam will be run, specifying the sequence of the events including:
 - a. The number of rounds of questioning (normally two),
 - b. The order of questioning: Normally,
 - i. The external Candidacy Examination Committee member;
 - ii. The departmental Candidacy Examination Committee member who is not a member of the Supervisory Committee;
 - iii. The Supervisory Committee members; and
 - iv. The graduate student's Supervisor.
 - c. The length of time of each examiner has for each questioning in each round (normally 15-20 minutes).
4. The Graduate Student is then asked to rejoin the committee, the exam format decided on in Step 3 is explained to the student, and the examination begins. The Graduate Student delivers his/her 20 minute presentation.
5. The agreed upon number of rounds of questioning (step 3) follows, after which the student is asked to leave the room.
6. The Chair poses two rounds of questions to the Examination Committee, the first being their opinion on the performance of the student during the examination and the quality of the written material (as per Section 6.4), and the second their recommendation for the outcome (as per Section 6.7).
7. A general discussion ensues with the Chair recording observations that would be of help to the student.
8. A formal vote is conducted as to the outcome of the examination. The possible outcomes are Pass, Conditional Pass, or Fail (as per Section 6.7). In the event that all but one member of the committee agree on a decision, the vote of the majority holds. If two or more dissenting votes are recorded, the matter is referred to the Associate Dean, FGSR, who will determine an appropriate course of action.
9. The Graduate Student is recalled and the decision explained and feedback given.
10. The Chair completes the required paperwork and submits it to the Graduate Program Office within 7 days of the examination.

7 FINAL EXAMINATIONS

7.1 Guidelines for the Final Examination and Thesis

When a Graduate Student has completed the research project and has developed a body of publishable data, the Graduate Student should, after explicit approval by the Supervisory Committee, begin writing the thesis.

Doctoral Students are strongly encouraged to have at least three publications before completion of their degree. At a minimum, one of these publications should be a first author paper in press prior to the final examination. Publication of thesis work is not a requirement for graduation.

Specifications for thesis formats (structure of the thesis, paper, margins, etc.) are available online from the Faculty of Graduate Studies and Research (see <http://www.gradstudies.ualberta.ca/degreesuperv/thesis/prepare.htm>). There are two general formats available: the traditional and the paper format.

The Department strongly encourages publications but recommends the traditional thesis format for a number of reasons

- If written in this way, scientists from outside the Department will know that the writing is that of the student;
- Reformatting the published papers to fit the thesis format and integrating them together in a way that creates a cohesive document is often more difficult than writing it in the traditional thesis format;
- This format allows examiners outside of the specialized area to more easily evaluate the work.

The following should be noted regarding a Graduate Student's thesis:

- Only work done by the Graduate Student can be included in the thesis.
- Since many papers have multiple authors, the Graduate Student's contribution to each paper must be delineated.
- All collaborative efforts and technical assistance must be acknowledged in the thesis.

7.2 Master's Final Examination

7.2.1 MSc Exam Timelines

The timeline for convening the final examination committee meeting of thesis defense is long and it is important to consider the following points:

- Before the thesis is forwarded to the Examination Committee:
 1. the supervisor is required to sign the [LMP Departmental Acceptance of Master's Thesis](#) form; and
 2. there must be an indication in the student's most recent Supervisory Committee Meeting Report that the student is ready to defend.
- At that point then examination committee should be appointed. The [Notice and Approval of Master's Final Oral Examining Committee](#) must be submitted to the LMP graduate program office **at least 4 weeks** prior to the proposed examination date. If you wish the assistance of the LMP Graduate Program office in preparing the forms, please allow sufficient extra time. This form is sent to MSGP and FGSR for approval.

- The Examination Committee must receive the thesis 4 weeks prior to the examination.
- The Graduate Student should be aware of deadlines to be met for submitting the final document to the Faculty of Graduate Studies and Research for spring or fall convocations.

7.2.2 MSc Final Examination Committee

In Laboratory Medicine & Pathology, the MSc Examination Committee has a minimum of four examiners who must all attend the examination, and normally consists of the Graduate Student's Supervisory Committee plus an additional examiner.

- There is no External Reader or Examiner for a MSc thesis.
- At least one member must be from another department, and one must be at "arm's length" from the thesis project (i.e. not part of the Supervisory Committee) and the Supervisor's projects. This can be the same person.
- Must be chaired by a faculty member from inside the department.

7.2.3 MSc Final Exam Guidelines

- The MSc final exam (thesis defense) normally involves an initial 20-30 minute presentation by the Graduate Student of their thesis work followed by two rounds of questions.
- The role of the Chair of Examination Committee is to:
 - Moderate the proceedings;
 - Ensure that a fair examination occurs; and
 - Report the results to the Graduate Studies Committee.
- If the chair is not a member of the examining committee, the chair does not vote.
- Exam questions usually are concerned with the thesis, but not exclusively so.
- The questions are set to enable the Examining Committee to form an opinion on the quality of the candidate's thesis work as well as his/her capability to comprehend its significance in the context of the field.
- Thus, both the document and the candidate are being examined.
- The Chair of the Department and the Chair of the Medical Sciences Graduate Program Committee, if not already members of the Candidacy Examination Committee, may attend the final exam as observers.
- Except for the Dean, FGSR (or Associate Dean or pro dean), who may participate fully in the examination, persons other than the examiners may attend only with the approval of the Dean, FGSR, or the chair of the committee. Visitors may not participate in the committee's discussion concerning its decision on the student's performance and must withdraw before such discussion commences.

7.3 PhD Final Examination

7.3.1 PhD Exam Timelines

The timeline for convening the final examination committee meeting of thesis defense is long and it is important to consider the following points:

- After the completion of an acceptable draft of the thesis (normally determined by the Graduate Student's Supervisor but in exceptional circumstances by the Chair of the Department of Laboratory Medicine & Pathology or the Dean of the Faculty of Graduate Studies and Research), the thesis is then submitted to the other members of the Supervisory Committee for their review (normally allow 1 to 2 weeks for the review of the thesis).
- The Supervisor and all members of the Supervisory Committee must then certify in writing that they believe that the thesis is of sufficient quality to proceed to a thesis examination (the Faculty of Graduate Studies and Research requires this certification and in the Department, all committee members must sign the [LMP Departmental Acceptance of Doctoral Thesis](#) before an external examiner or reader can be selected or a date for the defense can be set).
 - The interpretation endorsed by the Department of Laboratory Medicine & Pathology is that the thesis is of a textual quality equivalent to that of a manuscript being submitted for publication to a high quality journal and that the committee members are comfortable with the scientific content of the thesis.
 - If the committee does not unanimously approve the thesis, the Graduate Student may appeal that decision to the department's Graduate Studies Committee.
- Once the thesis has been approved by the Supervisory Committee, an External Examiner or Reader can be identified.
 - The External Examiner or Reader is initially identified by the Graduate Student and Supervisor, the Supervisor then contacts the potential examiner to determine whether they would be prepared to act as an examiner for this thesis and determine approximate dates for the thesis defense.
 - It is important that there is no direct contact between the Graduate Student and External Examiner or Reader between the time that the External is identified and the defense.
 - The External Examiner or Reader is nominated by submitting the [Request to Invite External Reader or Examiner](#). You may request the assistance of the LMP Graduate Program office in preparing the form. The Medical Sciences Graduate Program and FGSR approve the nomination. The nomination requires the potential examiner's CV that documents and examines research competence and experience in supervising graduate students at the PhD level.
 - **A lead-time of two months** before the exam date should be allowed for the Faculty of Graduate Studies and Research to approve a prospective External Reader or Examiner.
- The [Notice of Approval of Doctoral Final Oral Examination Committee](#) form must be submitted to the graduate program office **at least 4 weeks** prior to the proposed examination date. If you wish the assistance of the LMP Graduate Program office in preparing the forms, please allow sufficient extra time. This form is sent to MSGP and FGSR for approval.
- The Graduate Student should be aware of deadlines to be met for submitting the final document to the Faculty of Graduate Studies and Research for spring or fall convocations.

7.3.2 PhD Final Examination Committee

According to FGSR policy, the PhD final examination committee will consist of the Supervisory

Committee, to which at least two non-Supervisory Committee members are added, for a minimum of five. Of these five (or more) examiners:

- Two must be from outside the Department of Laboratory Medicine & Pathology.
- One must be an External Examiner (a member from outside the University who attends the exam) or an External Reader (an external examiner from outside the University who does not attend the exam but submits comments to the Exam committee).
- If an External Reader is chosen, an additional Faculty member approved by the Faculty of Graduate Studies and Research must attend the exam.
- The final exam is chaired by a faculty member who is not the supervisor (or co-supervisor) but is a member of the student's home department. If this chair is not a member of the examining committee (FGSR encourages this arrangement), the chair does not vote.
- Roles of members (except the chair) can be in almost any combination.
- The [Notice of Approval of Doctoral Final Oral Examination Committee](#) form must be submitted to the graduate program office **at least 4 weeks** prior to the proposed examination date. If you wish the assistance of the LMP Graduate Program office in preparing the forms, please allow sufficient extra time. This form is subsequently sent to MSGP and FGSR for approval.

7.3.3 PhD Thesis Defense Guidelines

- A candidate is required to present a public seminar based on the thesis, usually just prior to the final exam.
 - Members of the examining committee must attend the public seminar and any member of the University community is free to attend the seminar and question the candidate on any aspect of the presented research during the question period following the seminar.
 - The Chair of the examination will moderate the question period so that it does not result in the discussion of material that is more appropriate for the examination.
 - The presentation plus questions is generally approximately one hour long.
 - Members of the examining committee (including the Supervisor) must refrain from questions and comments during the presentation and question period.
 - Immediately after the seminar, the Examining Committee convenes for the examination, which normally lasts 2 hours.
- Exam questions usually are concerned with the thesis but do not need to deal exclusively with the thesis.
 - The questions are set to enable the committee to form an opinion on the quality of the candidate's thesis work as well as his/her capability to comprehend its significance in the context of the field;
 - Thus, both the document and the candidate are being examined.
- The role of the Chair of Examination Committee is to
 - Moderate the proceedings;
 - Ensure that a fair examination occurs; and
 - Report the results to the Graduate Studies Committee.

- The Chair of the Department and the Chair of the Medical Sciences Graduate Program Committee, if not already members of the Candidacy Examination Committee, may attend the final exam as observers.
- Faculty members of the student's major department as well as members of FGSR Council (or their alternates) have the right to attend doctoral examinations but should notify the chair of the examining committee. Other persons may attend the defense only with special permission of the Dean, FGSR, or the chair of the examining committee. Except for the Dean, FGSR, (or Associate Dean or pro dean) who may participate fully in the examination, persons who are not members of the examining committee: (a) may participate in the questioning only by permission of the chair of the committee; (b) are not permitted to participate in the discussion of the student's performance and must withdraw before such discussion commences

7.4 Teleconferencing and Attendance of Examiners at Thesis Defense

- All Examiners must be present at the thesis defense (for both the MSc and PhD defenses)
- If they are unable to attend the defense, the defense cannot proceed and must be deferred until such time as the examiners can be present.
- The presence of all Examiners “in person” is, however, not necessary if prior arrangements are made to allow an examiner (frequently the External Examiner in the case of PhD defenses) to participate in the defense through teleconferencing, recognizing that the teleconferencing examiner does not have the opportunity to visually inspect diagrams or documents that are produced during the examination.
- However, it is generally recognized that the active participation of an Examiner during the thesis defense is preferable to the function of an External Reader and the ability to be more flexible in scheduling defense dates can be a significant factor.

7.5 Results of MSc and PhD Final Examinations

- The examination committee can recommend the following outcomes:
 - Pass,
 - Pass with minor revisions,
 - Adjourn the defense to a later date; or
 - Fail the thesis and defense.
- The thesis defense is adjourned in the case where:
 - The required revisions to a thesis are major (more research is required or a major re-structuring or restating of the thesis is required),
 - The committee is dissatisfied with the candidate's oral presentation and defense (even if the thesis is acceptable with or without minor revisions); or
 - There are exceptional circumstances such as a medical emergency during the examination.
- In the event that the defense is adjourned the examination must be reconvened within 6 months and a final decision made by the Examination Committee.
- If the thesis is failed, the Chair will provide the reasons in writing to the candidate, the

Graduate Studies Committee, the Chair of the Department of Laboratory Medicine & Pathology, and to the Faculty of Graduate Studies and Research.

- The guidelines established by the Faculty of Graduate Studies and Research are then followed.
- In all cases where the candidate encounters significant difficulties in the thesis defense, the situation will be reviewed closely by the Faculty of Graduate Studies and Research.
- The Faculty of Graduate Studies and Research will consult with the Department of Laboratory Medicine & Pathology and the candidate before a final outcome is determined by the Faculty of Graduate Studies and Research.
- The final decision can be appealed through Faculty of Graduate Studies and Research procedures.

7.6 Thesis Defense Protocol: Responsibilities of the Chair

The Department suggests the Examining Committee Chair uses the following protocol for the final exam:

1. Welcome and introduce everyone. Offer refreshments (provided by the supervisor).
2. Explain the process of the oral exam to the student:
 - a) The student will leave the room, after which the Chair will review the composition of the Committee, the student's progress (academic record, awards, publications, etc.), and establish specifics of the oral exam process.
 - b) The student will return to the room and the exam will begin. For Master's thesis examinations, students first give a brief presentation of their research. For PhD thesis examinations, a public presentation has already preceded the exam. A minimum of two rounds of questions follow; there will be a brief break (5-10 min) after the first round of questions. (There is an option for additional round of questions.)
 - c) If there are no further questions, the student will be asked if they have any questions, comments or clarifications that they would like to make to the Examination Committee. The student will then leave the room for a second time.
 - d) Feedback is collected from the Examination Committee and a decision is made, after which the student is brought back into the room and informed of the outcome.
3. At the appointed time, ask the student to leave the room, but to remain nearby.
4. The Committee establishes:
 - a) that the exam should take place, based on the composition of the Committee (i.e. all members in attendance) and the student's progress (academic records, awards, publications, etc.)
 - b) the specifics of the examination process:
 - i. Number of rounds and length per round: Usually 2 rounds of questions, with 15 minutes for the first round and 5 minutes for the second round. (Additional rounds of questions are optional.)
 - ii. Will interruptions be permitted? If a pertinent point comes up, another examiner may interrupt with a question/brief comment.
 - iii. Agree on an order of questioners: Usual order is the most to least external, followed by the Supervisor and Chair. The Supervisor does not normally ask questions except

- for purpose of clarification. The Chair serves primarily to moderate the examination process, but may ask questions as well.
- iv. If there are no further questions, the student will be asked if they have any questions, comments or clarifications that they would like to make to the exam committee. The student will then leave the room for a second time so that feedback can be collect from the Examination Committee members.
5. Invite the student back in and explain the process the Committee agreed to follow for the examination.
 - i. MSc students then give their research presentation (20-30 min) to the Examination Committee. The start of the examination is recorded at the start of the presentation.
 - ii. For PhD Students, questioning begins immediately following the Committee's explanation of the process.
 6. Keep a record of the questions asked during the defense. This will be submitted to the Supervisor with the [LMP Thesis Defense Report](#) for debriefing the student sometime after the defense examination.
 7. Gently oversee the examination.
 - a) Watch the time allotted for each examiner to ensure the exam runs as scheduled.
 - b) If an examiner has not finished his questions during their allotted time, ask them to limit to one final question for the round.
 - c) As chair you may ask questions if you like.
 8. When the rounds of questions are completed, or when the questions slow, draw the exam to a close, and ask the student if they have any questions, comments or clarifications regarding the examination.
 9. Ask the student to leave the room and to remain nearby.
 10. Collect two rounds of feedback from Examination Committee and summarize in the [LMP Thesis Defense Report](#). Go through the Examiners in the same order, or in reverse order, or by going around the table. In all cases, the Supervisor should have a chance to speak last.
 - a) The first round of feedback includes an impression (strengths and weaknesses) regarding the quality of the:
 - i. thesis
 - ii. oral presentation
 - iii. defense
 - b) The second round of feedback is a statement of outcome of the thesis defense. If the chair is not a member of the committee, the chair does not vote. There are four possible outcomes of the final oral exam:
 - i. Pass
 - ii. Pass subject to revisions *
 - iii. Adjourned
 - iv. Fail
- * There is NO provision for *pass subject to major revisions*. As a result, in practice the category *pass subject to revisions* covers everything from fixing typos to redrafting a faulty chapter.

- c) Indicate any unusual circumstances that may have impacted student performance.
 - d) Obtain consensus from the Committee on the summary of the Committee discussions and record this on the [LMP Thesis Defense Report](#).
11. Invite the candidate back into the room and offer congratulations if appropriate. Read the summary of Committee discussions to the student, and let the candidate know that the supervisor will debrief sometime soon following the examination.
12. Based on the defense outcome, Committee members sign the [Thesis Approval / Program Completion](#) form only if the student passed the exam and the thesis is accepted. If the outcome is:
- a) **Pass** – all committee members sign the Thesis Approval / Program Completion form.
 - b) **Pass subject to revisions** – all committee members except the supervisor sign the Thesis Approval / Program Completion form, on the understanding that the student will make the changes in time to submit the thesis to the FGSR on or before the deadline for the next convocation.
 - i. These changes should be checked and approved by the supervisor, who does not sign the thesis signature page until the required changes are satisfactorily completed.
 - ii. Other committee members may withhold their signature until they can verify that their required revisions have been made to their satisfaction, though in practice most are happy to sign.
 - c) **Adjourned:** The final oral examination is adjourned only in very rare circumstances when:
 - i. There are substantial revisions to the thesis such that the committee should not propose that the student has passed.
 - ii. The committee is dissatisfied with the student's oral presentation and defense of the thesis even if the thesis itself was approved.
 - iii. There are exceptions circumstances such as a medical emergency during the examination.

Include a detailed description of the nature of the deficiencies and what is required of the student.

The advice of the Associate Dean FGSR should be sought at once. *A final decision must be made within six months of the initial examination.*
 - d) **Fail:** Extremely rare.
 - i. The Examination Chair shall inform the Associate Dean FGSR and the student in writing of the reasons for the rejection and make recommendations on the suitability of the candidate continuing in the program.
 - ii. The LMP GSC shall meet to consider the situation and formalize the Department's recommendation.
 - iii. The Associate Dean FGSR will meet with the student and Departmental representatives before acting on any departmental recommendation.
 - iv. *A decision of FGSR which affects the student's academic standing (i.e. required to withdraw) can be appealed.*
13. Thank the Examination Committee members and return signature pages and copies of

thesis to student.

14. Ensure copies of LMP Thesis Defense Report and examination questions are sent to the student. The original copy will stay on file with the LMP Graduate Studies Office.
15. Ensure the Thesis Approval / Program Completion is completed and sent to FGSR as soon as all signatures are obtained. A copy will stay on file with the LMP Graduate Studies Office.

8 MASTER'S PROGRAM OVERVIEW

SUPERVISOR	
<i>Event / Forms</i>	<i>Department Timeline</i>
Nominate supervisor on Approval of Supervisor – Master's form	<ul style="list-style-type: none"> • Supervisor identified prior to offer of admission • Submit form after student has registered
SUPERVISORY COMMITTEE	
<i>Event / Forms</i>	<i>Department Timeline</i>
Nominates Supervisory Committee members via memo to MSGP	<ul style="list-style-type: none"> • No later than the end of the first year
Supervisory Committee meets with student to review program and progress; submits Graduate Student Supervisory Committee Meeting Report	<ul style="list-style-type: none"> • Annually, or more often as deemed appropriate by the supervisor
ETHICS AND ACADEMIC INTEGRITY TRAINING	
<i>Event / Forms</i>	<i>Department Timeline</i>
Student must complete the equivalent of at least eight hours of structured academic activity	<ul style="list-style-type: none"> • Prior to program completion
FINAL ORAL EXAMINATION	
<i>Event / Forms</i>	<i>Department Timeline</i>
<ol style="list-style-type: none"> 1. Supervisor signs and submits the LMP Departmental Acceptance of Master's Thesis; and 2. There must be an indication in the student's most recent Supervisory Committee Meeting Report that the student is ready to defend. 	<ul style="list-style-type: none"> • Prior to setting examination date and before the thesis is sent to the examiners
Recommends Examining Committee using a Notice and Approval of a Master's Final Oral Examination Committee form; copy of the Notice is sent to examiners and student	<ul style="list-style-type: none"> • Submit at least four weeks prior to examination
Thesis is submitted to the Examining Committee	<ul style="list-style-type: none"> • At least four weeks prior to examination
If required, submit Request to Restrict Access to a Thesis form	<ul style="list-style-type: none"> • Submit at the same time as the Notice and Approval of a Master's Final Oral Examination Committee (at least four weeks prior to examination)
Report examining committee's decision on Thesis Approval / Program Completion form	<ul style="list-style-type: none"> • Submit immediately after all signatures are obtained and within six months of the exam
Student must submit either three unbound hard copies of the thesis to FGSR or one electronic copy to FGSR and one bound hard copy to the Dept of Laboratory Medicine & Pathology.	<ul style="list-style-type: none"> • Within six months of examination

NOTE: All forms are to be submitted to the LMP Graduate Program office in accordance with the indicated timelines. If you wish the assistance of the LMP Graduate Program office in preparing the forms, please allow sufficient extra time. Forms are sent first to MSGP and then to FGSR for approval.

8.1 Program Checklist for MSc Students

Name	
ID	
Start date	
Completion Deadline	
Supervisor(s)	
Supervisory Committee [within first year]	
Required Coursework:	
LABMP 520 or 530	
Course #1	
Course #2	
Course #3	
Other courses	
Academic Integrity and Ethics Training:	
ESI Day	
Other	
LMP Rounds Presentation	
LMP Rounds Attendance (≥ 50% each year)	
Supervisory Committee Meeting #1 [within first year]	
Supervisory Committee Meeting #2 [within second year]	
Supervisory Committee Meeting #3 [within third year]	
Supervisory Committee Meeting #4 [within fourth year]	
Final Oral Examination	
Examination Committee Members	
Awards	
Bell McLeod Travel	
Other	
Notes	
Convocation Date	

9 DOCTORAL PROGRAM OVERVIEW

SUPERVISOR	
<i>Event / Forms</i>	<i>Department Timeline</i>
Nominate supervisor on Approval of Supervisor and Supervisory Committee - Doctoral form	<ul style="list-style-type: none"> • Supervisor identified prior to offer of admission • Submit form after student has registered
SUPERVISORY COMMITTEE	
<i>Event / Forms</i>	<i>Department Timeline</i>
Nominate supervisory committee on Approval of Supervisor and Supervisory Committee – Doctoral form	<ul style="list-style-type: none"> • No later than the end of the first year
Supervisory Committee meets with student to review program and progress; submits Graduate Student Supervisory Committee Meeting Report	<ul style="list-style-type: none"> • Annually, or more often as deemed appropriate by the supervisor
ETHICS AND ACADEMIC INTEGRITY TRAINING	
<i>Event / Forms</i>	<i>Department Timeline</i>
Student must complete the equivalent of at least eight hours of structured academic activity	<ul style="list-style-type: none"> • Prior to program completion
PhD PROPOSAL TO MSGPC	
<i>Event / Forms</i>	<i>Department Timeline</i>
Student must submit a PhD proposal application to the MSGP	<ul style="list-style-type: none"> • Within the first 2 years
CANDIDACY EXAMINATION	
<i>Event / Forms</i>	<i>Department Timeline</i>
Set date for candidacy examination	<ul style="list-style-type: none"> • Department recommends a date within 6 months of MSGP acceptance of the PhD proposal. • Must be not less than six months prior to final examination.
Submit Notice and Approval of Doctoral Candidacy Examination Committee form; copy of the Notice and Instructions to Candidacy Examination Committee is sent to examiners and student	<ul style="list-style-type: none"> • Submit at least four weeks prior to exam
Submit Candidacy Exam document (i.e. the MSGP proposal with any revisions) to the Examining Committee	<ul style="list-style-type: none"> • At least two weeks prior to the exam
After successful examination, submit Report of Completion of Candidacy Examination form	<ul style="list-style-type: none"> • Within 7 days
After an unsuccessful examination, department recommends course of action in writing to MSGPC / FGSR	<ul style="list-style-type: none"> • Within 7 days

FINAL ORAL EXAMINATION	
Event / Forms	Department Timeline
All Supervisory Committee members declare in writing that the thesis is adequate to proceed to the final oral examination by signing the LMP Departmental Acceptance of Doctoral Thesis form	<ul style="list-style-type: none"> • Submit prior to setting examination date and before the thesis is sent to the external examiners
Supervisor should make contact with a potential External Examiner to gauge willingness to participate and determine availability. Tentative date(s) should be established and agreed upon by the external and the supervisory committee. Thought should be given to the composition of the rest of the examining committee, and their availability also established	<ul style="list-style-type: none"> • Approximately three months prior to examination
Department nominates external examiner and completes a Request to Invite External Examiner form. FGSR invites external examiner.	<ul style="list-style-type: none"> • Submit form at least 10 weeks prior to exam
Supervisor can apply to FGSR for funds to support External Examiner's travel (Request for Funds for External Examiner Travel)	<ul style="list-style-type: none"> • Normally at least two months prior to examination
Department recommends Examining Committee using a Notice and Approval of Doctoral Final Oral Examination Committee form; copy of the Notice is sent to examiners and student	<ul style="list-style-type: none"> • Submit Notice at least four weeks prior to examination
Ensure that the External Examiner or Reader and Examining Committee receives the thesis	<ul style="list-style-type: none"> • At least four weeks prior to examination
If required, submit Request to Restrict Access to a Thesis form	<ul style="list-style-type: none"> • Submit form at the same time as the Notice and Approval of Doctoral Final Oral Examination Committee (at least four weeks prior to examination)
Report examining committee's decision on Thesis Approval / Program Completion form	<ul style="list-style-type: none"> • Submit form immediately after all signatures are obtained and within six months of the exam
Student must submit either three unbound hard copies of the thesis to FGSR or one electronic copy to FGSR and one bound hard copy to the Department of Laboratory Medicine & Pathology.	<ul style="list-style-type: none"> • Within six months of examination

NOTE: All forms are to be submitted to the LMP Graduate Program office in accordance with the indicated timelines. If you wish the assistance of the LMP Graduate Program office in preparing the forms, please allow sufficient extra time. Forms are sent first to MSGP and then to FGSR for approval.

9.1 Program Checklist for PhD Students

Name	
ID	
Start date	
Completion Deadline	
Supervisor(s)	
Supervisory Committee [within first year]	
Required Coursework:	
LABMP 520 or 530	
Course #1	
Course #2	
Course #3	
Course #4	
Other courses	
Academic Integrity and Ethics Training:	
ESI Day	
Other	
LMP Rounds Presentation #1	
Presentation #2	
LMP Rounds Attendance (≥ 50% each year)	
Supervisory Committee Meeting #1 [within first year]	
Supervisory Committee Meeting #2 [within second year]	
Supervisory Committee Meeting #3 [within third year]	
Supervisory Committee Meeting #4 [within fourth year]	
Supervisory Committee Meeting #5 [within fifth year]	
PhD Proposal to MSGPC [within 24 months]	
Candidacy Exam [within 24-30 months]	
Candidacy Exam Committee Members	
Final Oral Examination	
Examination Committee Members	
Awards	
Bell McLeod Travel	
Bell McLeod Travel	
Other	
Notes	
Convocation Date	