Translational Medicine Graduate

Program Handbook

Department of Medicine

Faculty of Health Sciences

Queen’s University

Kingston, Ontario, Canada

(December 2018)
Table of Contents

Program Overview .................................................................................................................. 3

Fees and Registration ........................................................................................................... 4

Admission Requirements ...................................................................................................... 5

Program Requirements & Timelines ...................................................................................... 6

Mini-Master’s ...................................................................................................................... 7

PhD Comprehensive Exam ................................................................................................. 9

Funding, Awards and Bursaries .......................................................................................... 11

TMED Course Descriptions ............................................................................................... 12

TMED Course Syllabus ....................................................................................................... 15

Academic Integrity ............................................................................................................... 31

Changes in Registration, Status and Course Work ............................................................... 31

Graduate Student Supervision ............................................................................................ 32

Thesis Supervisory Committees .......................................................................................... 33

Thesis Examinations ............................................................................................................ 34

Housing ............................................................................................................................... 43

Student Resources and Contacts on Campus ..................................................................... 44

Acknowledgements ............................................................................................................. 47

Appendices .......................................................................................................................... 48
Program Overview

Translational Medicine is driven by our patients and their diseases. Guided by this primary focus, translational research spans across the spectrum from molecular and cell biology to preclinical models to patient studies and back again. Within the context of the proposed Translational Institute of Medicine (TIME), a confederation of existing research groups within the Faculty of Health Sciences, the Department of Medicine has established two new and unique programs: **Master of Science (MSc) and Doctor of Philosophy (PhD) in Translational Medicine**. These programs aim to train the next generation of researchers to be effective translators of biomedical discovery. The graduates of the programs will operate at the intersection of clinical and related sciences and will have the expertise to generate and lead discovery through an integrated process, increasing the efficiency of translating science knowledge into health improvement.

The new and innovative MSc and PhD in Translational Medicine are unique research-based graduate programs focused on translational medicine at both master’s and doctoral levels in Canada. The programs are innovative, offering a curriculum interweaving graduate level research with authentic clinical experiences in a multidisciplinary environment across departments at Queen’s University.

As one of the first of its kind, the programs link graduate level research skills with a variety of clinical experiences including patient interactions, clinical observerships and medical rounds to enhance professional thinking and action. This unique curriculum will offer important foundation work for future careers in the biomedical field, and will provide critical skills for pursuing careers that include clinician scientists, biomedical researchers, leaders in industry and public health and/or health policy.

Both the MSc and PhD in Translational Medicine are research-based programs, which requires the completion of 12-credit courses, including three new mandatory core courses in translational medicine and 3 credits of elective course(s) chosen from students’ area of interests, and thesis research. PhD students also have the requirement of a comprehensive exam.
Fees and Registration

Tuition
The tuition of our MSc and PhD in Translational Medicine is the same as other research graduate programs at Queen’s, which is set at $6,414.45 (domestic rate) for the 2017-18 academic year. Please visit the Office of the University Registrar for more details on tuition and fees: http://www.queensu.ca/registrar/financials/tuition-fees.

Net ID
Your NetID is your network identity at Queen's. It will be the "User ID" you need to sign on to the applications and services that are operated by ITServices, such as email, Moodle course management system, SOLUS Student Center, MyQueensU Portal, QShare, Wiki, etc. The login is called your "NetID", and instructions on how to generate them can be found at: http://www.queensu.ca/its/netid

You will need your Queen's student number to go through these processes. If you don't have your Student number, please call the School of Graduate Studies (SGS) office at 613-533-6100. We cannot provide you with your student number by email, due to confidentiality requirements.

Registration
For registering for course to the full time Translational Medicine program (once accepted into the program), complete the SGS Registration form and submit to tmed@queensu.ca. For registering for individual TMED courses, please contact tmed@queensu.ca for more information.
Admission Requirements

Please note we are not accepting international students for the upcoming academic year; however, this is a consideration for future years.

In order to be considered for admission, applicants for the MSc in Translational Medicine program need to hold an undergraduate honours degree with a minimum of a B+ average in the last two years of their program, and applicants for the PhD program need to hold a master’s degree with a minimum of an A- average.

Applications for admission are completed and submitted on the School of Graduate Studies website (https://eservices.queensu.ca/apps/sgsapp/), including an online application form and specific instructions regarding how to submit the following documents:

- A Statement of Interest about how applicants’ background experiences and career aspirations make them ideally suited for the program (up to 4000 characters in the online application);
- Transcripts for all postsecondary education;
- Two references from individuals familiar with the applicant’s academic performance.

In addition to the online application and the above required documents, applicants are required to submit an electronic resumé/curriculum vitae to tmed@queensu.ca.

Note: Referees are notified that you want them to provide a reference for you by email after you have submitted your online application, so please submit your application at least two weeks before the application deadline and be sure to include the correct email addresses of your referees on your online application. Applications will not be deemed complete and will not be reviewed by the admissions committee until all listed references are received.

Language Requirements

In cases where English is not the first language, nor was the language of instruction in undergraduate studies, applicants must demonstrate English language proficiency. Those applicants will need to provide proof of English language proficiency through one of the following:

1. International English Language Testing System (Academic module) with a minimum score of 7 in each component, or
2. TOEFL iBT with a passing score of 93 including a minimum score of 24 on the speaking section.

Please note that these requirements are higher than the minimum standards set by the School of Graduate Studies. Students will be involved in observing the clinical care of patients, and hence a thorough understanding and ability to communicate in English is essential.
However, if in the 12-month period prior to the month of application, an applicant has studied for at least one complete year at a post-secondary institution where English is the official language of instruction, a request to be exempted from the English language proficiency test requirement may be made to the Director of Admissions, School of Graduate Studies.

Program Requirements & Timelines

The Master of Science (MSc) in Translational Medicine requires, at minimum, the completion of 12 credit units, including three new core courses in translational medicine (TMED 800, 801, & 802) and 3-credits in elective course(s) chosen from students’ area of interests, and a thesis research project.

MSc in Translational Medicine (duration: 24 months)

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Year 2</th>
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<tbody>
<tr>
<td><strong>Fall</strong></td>
<td><strong>Winter</strong></td>
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<tr>
<td>TMED 801</td>
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<tr>
<td>TMED 802</td>
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<tr>
<td>Research Commences</td>
<td></td>
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</tbody>
</table>

The Doctor of Philosophy (PhD) in Translational has the same coursework requirements such that students who have completed the MSc in Translational Medicine will be granted advanced standing and have no further coursework to complete thus providing an accelerated route to PhD completion. The PhD program also requires completion of a comprehensive exam and thesis research.

PhD in Translational Medicine (duration: 48 months)

<table>
<thead>
<tr>
<th>Year 1</th>
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<th>Year 4</th>
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<tr>
<td><strong>Fall</strong></td>
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<td><strong>Fall</strong></td>
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<td>TMED 801</td>
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<td>TMED 802</td>
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<tr>
<td>Research Commences</td>
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</tbody>
</table>

Guided by the Faculty of Health Sciences Graduate Council (FHSGC) Manual, students registered in the MSc in Translational Medicine with first-class standing (a minimum A-average, equivalent to 3.7 or 80%), and who show exceptional promise in their research may be considered for promotion to the PhD in Translational Medicine, without completion of the MSc. Promotion to a doctoral program requires the recommendation of the Program, the approval of the FHSGC, and the approval of the School of Graduate Studies. Normally, students will apply to the program following 3 terms of enrolment (12 months) and prior to the end of the fifth term of study (20 months). All requirements for completion of the Mini-Master’s must be satisfied by the end of the sixth term (24 months). Students who choose the Mini-Master’s route and are successfully promoted to the PhD program are expected to complete within 3 additional years.

For more information, please visit Queen’s Grad Maps and search for Translational Medicine.
Mini-Master’s

Students registered in a Master's program at Queen's University, with first-class standing, and who show exceptional promise in their research may be considered for promotion to a doctoral program in the same Program, without completion of the Master's degree. Promotion to a doctoral program requires the recommendation of the Program, the approval of Faculty of Health Sciences Grad Council and the approval of the School of Graduate Studies.

NOTE: Students admitted to a doctoral program by the mini-master’s route may revert to the master's program within the same department/program in exceptional circumstances and with the approval of the supervisor(s), the department/program and the School of Graduate Studies. Promotion into a doctoral program without completing the Master's thesis is reserved for students who meet the following criteria:

1. Must have completed at least one term, full time, and have completed at least two graduate courses, or equivalent.
2. Must complete all course requirements for both the Master’s and Doctoral degree prior to graduation.
3. Should have an undergraduate honours degree with a minimum upper second class standing or equivalent.
4. Must have an overall first class average in graduate courses completed.
5. Must meet Program criteria for demonstrating promise and ability at research. This may take the form of oral or written presentation as well as letters of support from faculty familiar with the student’s progress.
6. Must apply to Council following one term of enrolment (4 months) and prior to the end of the fifth term of study (20 months). All requirements for completion of the mini-master’s must be satisfied by the end of the sixth term.

1. Procedure for Application and Approval:
The student will meet with the supervisor, the supervisory committee and the Graduate Program Director or delegate to agree upon whether he or she should apply to the Ph.D. program without completing the Master's thesis. During this meeting the ramifications of the transfer to the doctoral program are to be clearly defined for the student.

The following documents are required for submission to the SGS:
- Updated transcript (internal transcript acceptable)
- A brief justification outlining the student's qualifications for admission (to be completed by the Graduate Program Director or delegate)
- Letter of support from the supervisor
- Outline of student’s current and proposed research
- Completed application package for admittance to the doctoral program, including a decision sheet for acceptance into the Ph.D. program, “pending successful completion of the mini-master’s”.

The application will be forwarded to the Chair of Council c/o the School of Graduate Studies. When the mini-master’s candidate is in the same department/program as the Chair of Council, the application shall be forwarded to the Associate Chair of Council c/o the School of Graduate Studies.
Studies. The Chair or Associate Chair will either approve the application, thereby accepting the student into the Ph.D. program pending successful completion of the mini-master’s examination, or, in the case where he/she queries the qualifications of the student, have the application forwarded to Council for discussion. Both the Graduate Coordinator/Graduate Program Director (or delegate) in the student’s Program, and the supervisor must attend the Council meeting when the application is discussed.

No later than 40 working days after the approval to proceed via the mini-master’s route has been confirmed in writing by the SGS, the mini-master’s candidate will defend a written research report and proposal in an oral examination to an examining committee.

2. Procedure for Examination of the Research Proposal of the candidate for the Mini-Master’s:

The candidate must prepare a written report that normally should not exceed 20 pages in length, double spaced (excluding Figures, Tables and References), clearly delineating the background of the research project, the work done to date, and the proposal for development of the research into a doctoral thesis. This report will be submitted to an examining committee composed of the following members:

- Head/Director or Delegate as Chairperson
- Supervisor
- Two faculty members (cross-appointees or the supervisory committee may be used)

The Mini-Master’s Oral Examination Form will contain a signature line for the candidate indicating that the candidate has been informed of the make-up of the Committee and that there are no conflicts.

An oral examination will be held normally no later than 2 weeks (10 working days) after submission of the written report to the members of the examining committee. At the examination, the candidate will present for 20 minutes on the research report. This presentation will be followed by an oral examination that consists of two rounds of questions. Questioning or comments of the examining committee will primarily relate to the background of the project, what the student has accomplished, and the basis for expanding the project. This should normally last no longer than 90 minutes.

At the end of the examination, the candidate will be asked to leave the room while the examining committee members discuss the performance of the candidate. The examining committee will decide if the student will be recommended for promotion to the Ph.D. program or not. Two or more negative votes by the examining committee will result in failure of the mini-master’s examination. The decision of the examining committee shall be forwarded to the SGS.

Students who pass their mini-master’s examination will be allowed to transfer to the doctoral program in the following September, January or May. For these students, the mini-master’s examination will also count as the PhD Comprehensive Exam; a separate exam is not required. The Chair and/or Associate Chair of Council shall report any promotions to the Graduate
Council at the next meeting. Students who do not pass the mini-masters examination will be allowed to complete the M.Sc. thesis, according to SGS regulations.

**PhD Comprehensive Exam**

The goal of the PhD comprehensive exam is to assess the student’s knowledge of their field and scholarly qualifications that should be exhibited by a doctoral candidate. The exam will assess the student’s ability to explore and comprehend the fundamental knowledge in their field of specialization and to use the knowledge to inform ongoing research approaches ultimately ensuring a solid foundation which will allow students to progress towards being considered an expert.

Students entering the PhD program directly after completing an MSc will be required to complete a comprehensive exam within 24 months of registration in the program. For students who have transferred into the PhD program following a Mini-Master’s defence, the Mini-Master’s oral exam will serve as the oral comprehensive exam; a separate exam is not required.

Approximately 8 weeks before the planned exam, you should confer with your supervisor to come up with a list of examiners. Your supervisor is expected to contact potential examiners to confirm their willingness to participate. Once confirmed, and at least 6 weeks prior to the exam, their names should be submitted to the Graduate Program Assistant. Then, the Graduate Program Assistant will work with them to schedule the exam.

Members of the examining committee will be:

- Chairperson (chosen by the Graduate Program Director)
- Supervisor
- Two faculty members (cross-appointees or the supervisory committee may be used)

At least 10 working days before the exam, the student will submit a written report based on the PhD thesis project to all examiners. The report should not normally exceed 20 pages in length, double spaced (excluding Figures, Tables and References) clearly delineating the background of the research project, the work done to date, and the future directions of the project.

An Evaluation Form available from the Graduate Program Assistant, should be completed and returned to the Graduate Program Assistant at least 3 working days prior to the defence date by any member of the examining committee who feels that the defence should NOT go ahead. If two or more negative reports are submitted, the student and supervisor will be notified by the Chair of the Examining Committee or the Graduate Program Director to determine if they want to proceed with the PhD comprehensive exam. The SGS will also be notified. The decision of whether to proceed or not lies with the student. If the decision is made to postpone, the Chair must communicate to the supervisor and student the required revisions to the written report and that the student has the right to submit the revised report within one month. Following the subsequent submission of the revised report, the oral examination must take place. The SGS will be informed when an oral thesis examination is postponed due to negative reports.
During the oral exam, the student will present for 20 minutes on the research report. This presentation will be followed by two rounds of questions from the examining committee focused on the proposal and oral presentation, as well as questions that probe the student’s understanding of the background and related literature. This should normally last no longer than 90 minutes.

At the end of the exam, the student will be asked to leave the room while the exam committee discusses the performance and evaluation. Two or more negative votes will result in failure of the examination. You will be informed of the result immediately after the exam and the decision forwarded to the SGS. Failure at the first attempt at the comprehensive exam will be followed by a re-examination within three months. Normally, failure at the re-examination results in a recommendation to the SGS that the student withdraws from the program.
Funding, Awards and Bursaries

Students enrolled in the programs will receive funding packages to assist with living expenses and coverage of tuition: MSc – minimum $21,000 per year for 2 years; PhD – minimum $23,000 per year for 4 years.

The Translational Medicine Graduate Program Bursary offers $5000 to each MSc student towards research related activities and two times during a student’s PhD. There is no need to apply for this funding as it is provided to each student in the program.

Travel Grants are also available to a maximum of $1500 to each student to be used for travelling to present at conferences. Students must submit a letter of request to the Graduate Program Assistant indicating their project, title of presentation (poster or oral) and the name, location and dates of the conference.

The School of Graduate students offers internal awards such as the Arthur B. MacDonald Prize for Academic Excellence and the Queen’s Tri-Agency Recipient Recognition Awards.

For more information, visit their website at: https://www.queensu.ca/sgs/prospective-students/applying-scholarships
**TMED Course Descriptions**

**Core courses**
The flagship course entitled *Translational Medicine* will include faculty lectures, interactive patient sessions, and clinical observerships. In the experiential course, *Profession of Medicine*, students will attend weekly Medical Grand Rounds becoming immersed in the professional environment of medicine. The third course, *Research Success Skills*, will educate students about study design, as well as ethical and regulatory requirements for biomedical research.

* = courses that are one term in length. Courses are 3 credits unless otherwise stated

**TMED* 800 Translational Medicine**
Students will be educated in the translation of medical knowledge from a variety of medical disciplines. Classroom sessions will be divided into a traditional lecture, followed by an interactive discussion and a 3-minute student presentation. Clinical observerships will involve direct placement within various clinics. Students will be expected to write a review article on the topic of their thesis research.

**TMED 801 Profession of Medicine**
This course will immerse students in the professional learning environment of Medicine. Course content will consist of attendance at a minimum number of weekly Medical Grand Rounds, followed by facilitated small group discussions. Student seminars will be held during the winter term for presentation of thesis research proposals.

**TMED 802 Research Success Skills**
This course will provide the students with essential skills required to be a successful researcher. Instruction on study design, ethical and regulatory requirements for biomedical research will be provided through completion of online modules. A Library session will be included to teach strategies to search biomedical literature. Students will be expected to write a CIHR Canada Graduate Scholarship application and laboratory/research skills related to their thesis research will be evaluated.

**Electives**

**TMED 811 Next Generation Sequencing (1 credit)**
This one-credit course will teach students the theoretical and practical basis of high-throughput genomics and transcriptomics. The course is a combination of classroom lectures, practical bench science and practical computing. Students will learn to design, implement and analyze an experiment using next generation sequencing technology and be expected to demonstrate these skills in the course assignments.

**BMED 862 Cellular Techniques (1 credit)**
This one-credit course is part of a suite of methodology courses being developed for the graduate program in Biomedical and Molecular Sciences intended to familiarize graduate students with the principles and practice of cutting edge technologies used in biomedical and molecular sciences research. The objective of this course is to familiarize graduate students with the principles and practice of cutting edge technologies used for protein and peptide analysis involved in biomedical research.
BMED 865 Imaging Analysis (1 credit)
This one-credit course is part of a suite of methodology courses being developed for the graduate program in Biomedical and Molecular Sciences intended to familiarize graduate students with the principals and practice of cutting edge technologies used for imaging analysis involved in biomedical and molecular sciences research. This particular course will introduce students to wide field epifluorescence microscopy, confocal microscopy, immunohistochemistry, imaging of live cells and fluorescence recovery after photobleaching.

BMED 869 Reproduction (1 credit)
The objective of this course is to familiarize graduate students with the principles and practice of cutting edge technologies used in reproductive and developmental biology involved in biomedical and molecular sciences research. This specific offering of the course will focus on methods to study developmental toxicity. This unit will include an introductory lecture, hands on laboratory experience and a take home assignment.

BMED 809* Principles and Drug Discovery and Development
This is a problem-based course focusing on and consisting of discussions of receptor theory, mechanisms of drug action, drug metabolism, pharmacokinetics, pharmacogenetics and pharmacogenomics, and drug transport. The course comprises lectures, problem-solving discussions and seminars, based on recent literature.

BMED 811* Advanced Molecular Biology
This course concentrates on the molecular biology of mammalian models particularly mechanisms involved in human diseases. The human genome project, forensic analysis, DNA diagnostics of human diseases, models of transcriptional and growth regulation and cancer, DNA repair, RNA processing and translation are all discussed. Emphasis on recent findings and course materials will be drawn from current reviews.

NSCI 844* Controversies in Neuroscience
As insight regarding the human brain expands, so do issues such as what constitutes personhood, what drives the criminal mind, intelligence-enhancing drugs and end-of-life decisions, to name a few. Lead by experts who deal daily with such concerns, this course will focus weekly on a particular topic in neuroscience which impacts on society.

EPID 803* Public Health System in Canada
This course provides an overview of the public health system in Canada including the provision of health care services. The first section of the course provides a history and overview of the Canadian public health care system, including how health services are organized and financed, as well as an introduction to health policy. The second section of the course highlights health care delivery, focusing on federal and provincial health care delivery, and both major and specialized health care delivery systems.

EPID 810* Controlled Clinical Trials
This course will cover material relevant to the design and conduct of controlled clinical trials. Design topics will include methods used to achieve unbiased results with improved precision, such as adequate sample size, randomization, blinding, pre- and post-stratification, cross-over
designs, placebos and the counting of relevant events. Attention will be given to the problem of conducting multi-centre clinical trials. Topics covered will include drafting of protocols, design of data forms, logistics of data flow, methods of follow-up, data management and quality control, periodic reporting, final data analysis and the production of final reports. Ethical issues and the role of randomized trials in clinical investigation will be discussed.

**PATH 822* Experimental Cancer Therapeutics**
The aim of this course is to introduce and discuss essential questions on the basic science of experimental therapeutics for the treatment of cancer. Topics will include discussions on: new drug development; molecular and signaling pathways involved in tumour genesis; challenges with existing cancer therapeutics; molecular approaches to profiling human cancer signatures; drug discovery and delivery; imaging, preclinical and clinical testing of novel therapies to assess efficacy and validate drug targets; and clinical trial results and the molecular basis for variability in tumour responses. A general theme for the course will be how to identify an experimental target or novel therapeutic, and translate the results into an improved therapy for the treatment of cancer.

**PATH 826* The Molecular Basis of Disease**
This course covers several diseases and integrates the genetic, biochemical, physiologic, anatomic, and general etiologic factors which play a role in the progression of each disease from its inception to death or recovery. The perspective will demonstrate that each disease is the result of an evolving interplay of genetic and environmental factors.

*Additional existing courses may be approved by the Program Director and students’ supervisor, depending on the research interests of the students.*
**TMED Course Syllabus**

**TMED-800 Translational Medicine**

**Course Coordinator:** Dr. Paula D James and Dr. Mark L. Ormiston

**Time:** Fall Term, Tuesdays, 8:30-10:30 am

**Location:** Queen’s Cardiopulmonary Unit main conference room

**Office Hours:** By appointment

**Contact:**
- Dr. James: Internal Phone #: 36329; Email: jamesp@queensu.ca
- Dr. Ormiston: Internal Phone #: 36241; Email: mark.ormiston@queensu.ca

**Course Description:**

This course is a 3-month (1-term) graduate course in which students will be educated in the translation of medical knowledge using examples from a variety of medical disciplines. Course content will consist of weekly, 2-hour classroom sessions, as well as monthly, 4-hour clinical observerships. Classroom sessions will be divided into a traditional 1-hour lecture by a member of Faculty from the Department of Medicine or the Faculty of Health Sciences, followed by an hour of interactive discussion and a 3-minute student presentation. Clinical observerships will involve direct placement of the graduate students within various clinics at KGH or Hotel Dieu Hospital. Students will have the opportunity to interact with clinicians and patients in a clinical setting.

**Course Objectives:**

This course will provide students with an understanding of the mechanisms involved in translating biomedical research into the clinic. At the end of the course, students will:

1. Be familiar with current issues in translational medicine across a range of disciplines.
2. Be able to critically assess current biomedical and health sciences research, with a particular focus on how this work can be translated into new therapies or clinical practices.
3. Have an appreciation and understanding for the clinical environment, principles of patient privacy, as well as the impact of their research on patient outcomes.
4. Possess a basic understanding of legal and ethical principles associated with the translation of biomedical research into medical practice, including interactions with industry partners.
5. Have experience in the clear communication (written and oral) of scientific concepts relating to translational medicine to a range of target audiences, including patients, clinicians and basic scientists.
6. Understand the requirements to merit authorship on peer reviewed articles.
Instructional Strategies:

This course consists of 1-hour weekly lectures, followed immediately by 1-hour interactive learning sessions that are directly relevant to the previous hour’s lectures. Interactive sessions can include, but are not limited to, discussions with patients or Q&A sessions with industry experts, such as industry-academic liaisons or lawyers specializing in biomedical patent cases. At the end of the interactive session, the students will be given 3 minutes to work as a group to identify a key point from the session. Then, one student will give a 3-minute presentation describing the key point. In-class sessions will be complemented by monthly clinical observerships, which will include clinic and/or ward-based experiences and patient interactions.

Prerequisites:

Admission to the MSc or PhD stream of the Translational Medicine Graduate Program. Graduate students enrolled in other MSc or PhD programs within the Queen’s University Faculty of Health Sciences can also take the course if space is available.

Course Outline

This course will allow students to apply the knowledge of basic science that they have gained through their undergraduate degrees to the practice of translational medicine. Weekly lectures will introduce students to examples of knowledge translation across a range of medical disciplines and will gain an appreciation for the major obstacles that currently hinder the successful translation of basic biomedical discoveries into new clinical practices. These lectures will be followed by weekly interactive sessions, where students will have the opportunity to liaise directly with patients, as well as industry and academic professionals with direct, real-world understanding of the practice of translational medicine. Students will also demonstrate their understanding and learning through a 3-minute presentation. In-class activities will be complemented by monthly clinical observerships that will allow students to better understand the impact of knowledge translation on clinical practice.

Course activities:

1) Lectures on Translational Medicine: (1 hour/week)

The first hour of the weekly, 2-hour in-class sessions will consist of a traditional lecture on issues that are relevant to translational medicine in a specific medical specialty or sub-specialty. A table of proposed lecturers for the initial course offering is included below.

2) Practical Interactive Sessions: (1 hour/week)

The second hour of the 2-hour weekly sessions will be dedicated to interactive exercises that are directly relevant to the previous hour’s lecture. These sessions will include discussions with patients, as well as industry experts in fields that are directly relevant to translational medicine, such as technology transfer, patent law and academic-industry partnerships. At the end of this
session, students will work as a group to identify a key point, and then one student will give a 3-minute oral presentation. Each student will be expected to give two presentations during the course.

Schedule of the 2018-2019 Academic Year

<table>
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<tr>
<th>Date</th>
<th>Presenter</th>
<th>1st Hour</th>
<th>2nd Hour</th>
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<tbody>
<tr>
<td>September 11</td>
<td>Jenna Healey</td>
<td>History of Translational Medicine</td>
<td>TBA</td>
</tr>
<tr>
<td>September 18</td>
<td>Stephen Archer</td>
<td>Development of Sildenafil and Dichloroacetate in PAH</td>
<td>Patient session</td>
</tr>
<tr>
<td>September 25</td>
<td>Gord Boyd</td>
<td>Cognitive Recovery after ICU Admission</td>
<td>Patient session</td>
</tr>
<tr>
<td>October 2</td>
<td>David Lillicrap</td>
<td>Hemophilia</td>
<td>Patient session</td>
</tr>
<tr>
<td>October 9</td>
<td>Anne Ellis</td>
<td>Conducting Clinical Trials</td>
<td>Patient/research participant session</td>
</tr>
<tr>
<td>October 16</td>
<td>Stephen Vanner</td>
<td>GI Motility Disorders</td>
<td>Patient session</td>
</tr>
<tr>
<td>October 23</td>
<td>Paula James</td>
<td>VWD/VWF</td>
<td>Patient session</td>
</tr>
<tr>
<td>October 30</td>
<td>Mark Ormiston</td>
<td>DNA Damage and Repair in Cancer Treatment</td>
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### Clinical Observerships: (4 hours every month)

Students will work with their supervisors and arrange to rotate through three, 4-hour experiences on different medical teams, one for each month during the term. Each student will participate in a variety of experiences which will vary with the structure of the specific rotation. Clinical observerships will include, but will not be limited to, attendance at outpatient clinics and/or ward rounding with a team. Students will have an opportunity to observe case discussion to improve their understanding of clinical reasoning. CIP (Clinician Investigator Program) students are exempted from the clinical observerships.

### Grading:

1) **Observerships: (20%)**

Clinical preceptors will provide a mark for each clinic that the student attends, based on attendance and the demonstration of appropriate behaviours such as punctuality, professional interactions with team members, and respecting patient confidentiality.

2) **3-Minute Presentation (30%)**

Each student will be expected to give two 3-minute presentations at the end of the second hour of each session. The presentation will be informed by the group discussion immediately preceding it. Students will be evaluated on their ability to effectively communicate a key point raised.

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<tr>
<th>Date</th>
<th>Name</th>
<th>1st Hour</th>
<th>2nd Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>November  6</td>
<td>David Lee</td>
<td>1st Hour: Chronic Myeloid Leukemia</td>
<td>2nd Hour: Patient session</td>
</tr>
<tr>
<td>November 13</td>
<td>Amer Johri</td>
<td>1st Hour: POCUS for Vascular Disease</td>
<td>2nd Hour: Patient/demo session</td>
</tr>
<tr>
<td>November 20</td>
<td>Don Maurice</td>
<td>1st Hour: cAMP and cGMP Signalling</td>
<td>2nd Hour: Medicolegal Consulting</td>
</tr>
<tr>
<td>November 27</td>
<td>Ben Glover</td>
<td>1st Hour: Complex Cardiac Arrhythmias</td>
<td>2nd Hour: Patient session</td>
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</table>
during the session, and their demonstration of an understanding of the connections between the lecture, the patient experience and the discussion. Each student will give two presentations, with the highest graded presentation counting towards the student’s overall grade in the course. Marks are assigned by the lecturer and guests in the interactive sessions.

3) **Review article in Translational Medicine: (10% for the outline and reference list, 40% for the final submission)**

As a final assignment, students will produce a 5,000-word review article examining approaches in translational medicine that are directly relevant to their research project. Articles will be prepared in a manner that is suitable for publication in a journal that is relevant to the student’s research discipline, with the hope that this work will (i) contribute to the student’s graduate thesis and (ii) form the basis of a publication arising from the student’s graduate studies. A detailed (1000 word) outline plus reference list will be due 1 month prior to the final assignment (November 6th) and the students will receive feedback to consider for the final document. The final version will be due 1 week after the end of the course (December 4th). A plagiarism check will be conducted on the paper.
TMED-801 Profession of Medicine

Syllabus

Course Coordinator: Dr. Rachel Holden  
Time: Fall-Winter, Thursdays, 7:45-10:00 am  
Location: Etherington Hall Auditorium (first hour) & Etherington Hall, Room 3047 (second hour)  
Office Hours: By appointment  
Contact: Internal Phone #: 33134  
Email: rachel.holden@kingstonhsc.ca

Course Description:

This course is an 8 month (2-term) graduate course in which students will be immersed in the professional learning environment of Medicine. Course content will consist of attendance at a minimum number of Medical Grand Rounds, followed by facilitated small group discussions following selected Medical Grand Rounds. Students will be expected to lead at least two discussion sessions (once per term), in the presence of the Grand Round speaker. The lead student will then write a Critical Thinking Report which will be posted online to continue the discussion with their peers. Student seminars will be held during the winter term for presentation of thesis research projects.

Course Objectives:

This course will provide students with an understanding of professional behaviors and collegial interactions within the profession of medicine. They will be exposed to settings in which clinicians and scientists regularly interact for the purposes of continuing education and professional development. At the end of the course, the students will:

1. demonstrate a broad understanding of physiology and pathophysiology across systems, with particular emphasis on issues central to the focus of the thesis research project;
2. embrace a Bench to Bedside and Beside to Bench approach to biomedical research and clinical care;
3. efficiently translate fundamental and pre-clinical science knowledge into health improvement;
4. effectively communicate across settings, purposes, and audiences in oral and written form;
5. understand the importance of interactions with various forms of media to communicate scientific information clearly without hyperbole but with passion.
Instructional Strategies:

Over both terms, students will be expected to attend a minimum of 20 hours of Medical Grand Rounds (formal lectures typically from visiting faculty), followed by a 1-hour facilitated small group discussion session after selected Medical Grand Rounds. The discussion will focus on the presented work and its relationship with translational medicine, the perspectives from the general public and the career path of the speaker. Seminars will be held during the winter term, and each student enrolled in the course will be expected to present his/her thesis research project.

Prerequisites:

Admission to the MSc or PhD stream of the Translational Medicine Graduate Program. Graduate students enrolled in other MSc or PhD programs within the Queen’s University Faculty of Health Sciences can also take the course if space is available.

Course Outline

Course activities:

1) Medical Grand Rounds: (a minimum of 20 hours over 2 terms)

Students are expected to attend Medical Grand Rounds for a total of 20 hours over 2 terms to provide an understanding of the breadth of translational medicine and to assist in the development of their research ideas. The schedule of available rounds is set on an annual basis and will be provided to students at the start of the course in September. Examples of recent Medical Grand Rounds topics include: “Regenerative Therapies for Cardiovascular Disease: Of Tinctures and Mechanisms” presented by Dr. Jalees Rehman from the University of Illinois at Chicago, “The Gut, the Bugs and the Brain” presented by Dr. Presyl Bercik from McMaster University, Hamilton ON and “Screening for Occult Cancer in Patients with Thrombosis” presented by Dr. Marc Carrier from the University of Ottawa.

After selected rounds, a facilitated small group discussion will be held between the speaker and students. Students will be expected to lead at least two discussion sessions (once per term), in the presence of the Grand Round speaker. During this session, students will be asked to address the following questions: 1) How could the research benefit patients? 2) How has this research been represented in the lay press and is it accurate/appropriate? and 3) What training/career path did the presenter take and the pros/cons of following a similar route today? The lead student will then write a 500 word Critical Thinking Report which will be posted online to continue the discussion with their peers.
2) Seminars: (1 hour/week over the winter term)

During the winter term, student seminars will be scheduled, during which students will present their proposed research and research progress to other students within the program and faculty.

The planned date for all seminars is: Thursday, March 21st from 1:00 PM to 5:00 PM in the Burr 3 Conference Room. You will need you ID badge to access this conference room.

Grading

1) Attendance: (Pass/Fail)
Consistent with professional expectations in the workplace, students have a responsibility to attend the required educational sessions. Attendance will be taken and 2% will be deducted from the final grade per missed session. Students who miss more than 3 sessions will fail the course.

2) Facilitated Small Group Discussion: (60% of TMED overall)
Students will be expected to lead at least two discussion sessions (once per term), in the presence of the Grand Round speaker. For each session, the speaker will assess the lead students’ performance (10%). Formative feedback will also be collected from peers (10%). The lead students will then write a 500 word Critical Thinking Report which will be posted online to continue the discussion with their peers. The supervisor (20%) and one committee member (20%) of the lead student will assess the report.

3) Seminar Presentation: (40%)
In the winter term, each student will be expected to present his/her thesis research project. Peer review is an important component of biomedical research, therefore 10% of the course grade will be comprised of peer evaluations, and 30% from faculty evaluations of the presentation.

Selected Medical Grand Rounds Schedule for the 2018-2019 Academic Year

September 20th Allergy – (Dr. Anne Ellis)

September 27, 2018 – Infectious Diseases (Dr. Jorge Martinez-Cajas)

October 4th Rheumatology – (Dr. Janet Pope)

October 11th Dermatology (Dr. Yuka Asai)

October 18th GI (Dr. Mark Ropeleski)

October 25th Respirology – (Dr. Dennis O’Donnell)
November 1st – Neurology (Dr. Xavier Montalban (U of T))

November 8th – GIM Gemini project (Dr. Amol Verma & Dr. Fahad Razak)

November 15th – Nephrology (Dr. Michael Walsh, McMaster University)

November 22nd – Medical Oncology 2017 Balfour Mount Visiting Professorship Recipient (Dr. Deb Dudgeon and Dr. Irene J. Higginson, MD, PhD)

November 29th – Cardiology (John O. Parker Lectureship - Dr. Paul Ridker (Boston))

December 6th – Hematology (Dr. Michelle Sholzberg)

January 10th – Chief Resident

January 17th – Endocrinology (Dr. Stan Van um)

January 24th – Allergy (Dr. Rozita Borici Mazi)

January 31st – Gastronenterology (Dr. Jessica Noelting)

February 7th – TBD

February 14th – General Internal Medicine (Dr. Thiwanka Wijeratne)

February 21st – Geriatric Medicine (Dr. Joanne Ho)

February 28th – Nephrology (Dr. Christopher McIntyre)

March 7th – TBD

March 21st – Infectious Disease

March 28th – Chief Resident

April 4th – Respirology – Munt Lecture
TMED-802 Research Success Skills

Syllabus

Course Coordinator: Dr. Anne Ellis

Time: Fall-Winter, Mondays, 10:30-11:30 am (First Fall Term class on September 10 for course orientation in the KGH Watkins 1D Conference Room (Rm 4.1.401); First Winter Term class on January 7 in the same location). Other face-to-face classes will be scheduled as necessary throughout the course but will generally be Mondays at 10:30am in the same location. Location: KGH Watkins 1D Conference Room (Rm 4.1.401)

Office Hours: By appointment
Contact: Internal Phone #: 613-548-2336
Email: Anne.Ellis@Kingstonhsc.ca

Course Description:

This course is a 2-term graduate course designed to provide the students with essential skills required to be a successful researcher. Instruction on study design, ethical and regulatory requirements for biomedical researchers will be provided through completion of online modules including N2 Network of Networks CITI (Collaborative Institutional Training Initiative), the Canada Cancer Trials Group module on Clinical Trials, and the TPS2 (Tri-Council Policy Statement) CORE (Course on Research Ethics) online module. A Library session will be included to teach strategies to search biomedical literature. Students will be provided instruction on grant writing and will be expected to write a CIHR Canada Graduate Scholarship application. Additionally, laboratory/research skills related to their thesis research will be obtained and evaluated.

Course Objectives:
This course will provide students with essential skills required to be a successful researcher. At the end of the course, the students will:

1. have the ability to design fundamental, pre-clinical, and clinical research projects with the goal of optimizing their translational potential
2. explain the principles of good clinical trial design and good clinical practice (GCP) compliance
3. successfully navigate regulatory and quality control steps at all stages of health research including ethical and legal concerns such as patient privacy and interactions with industry partners
4. recognise knowledge gaps, formulate a relevant research question, efficiently search sources of medical literature and manage the retrieved citations.
5. acquire skills in writing and reviewing grant applications associated with translational research design, data collection, and data analysis
6. understand the importance of research collaboration including the responsibilities of various roles
**Instructional Strategies:**
Online modules will be utilized to teach ethical and regulatory requirements for biomedical researchers. These will be provided free of charge to our students through the Kingston General Health Research Institute, Kingston Health Science Centre – Kingston General Hospital Site. Additional modules will be provided by Queen’s University (TCPS2 CORE) and by the Canada Clinical Trials Group. The Medical Information Literacy sessions will be delivered via both online modules and applied sessions in the library. A one-day workshop on grant writing will occur at the beginning of the winter term.

**Prerequisites:**
Admission to the MSc or PhD stream of the Translational Medicine Graduate Program. Graduate students enrolled in other MSc or PhD programs within the Queen’s University Faculty of Health Sciences can also take the course if space is available.

**Course Outline**

Course activities:

1) **Completion of online modules including N2 CITI online modules (estimated 30 hours) OR the Canada Cancer Trials Group module (estimated 36 hours):**
Students will be expected to complete one of: 1) 4 online modules offered by N2 Network of Networks CITI (Collaborative Institutional Training Initiative - https://about.citiprogram.org/en/courses/?filter=all): Good Clinical Practice, Responsible Conduct of Research-Life Sciences, Privacy & Security and Health Canada Division 5 which focuses on investigator initiated or industry sponsored drug trials OR 2) the Fundamentals of Clinical Trial Design, Conduct and Analysis online module, designed and maintained by the Canada Cancer Trials Group: http://www.queensu.ca/artscl_online/additional-resources/Clinical%20Trials%202017/HTML/story.html
The decision about which to complete will be made by the supervisor, taking into account what is most appropriate for the student’s thesis research.

The deadline for completion of these modules is November 15 of each academic year

2) **Completion of TPS2 (Tri-Council Policy Statement) CORE (Course on Research Ethics) online certificate training: estimated 3 hours**
This course is mandatory for all graduate students at Queen’s University doing research on human subjects. The course covers pertinent issues of ethics-related concerns.

The deadline for completion of this module is October 15 of each academic year

3) **Medical Information Literacy Sessions: 3 hours**
A 1-hour session will be provided by a librarian from Bracken Health Sciences Library at the beginning of the fall term in order to familiarize students with available library resources and
services at Queen’s University. This will be followed by a 1.5-hour hands-on training session to equip students with the information research skills necessary to master the inquiry process (from topic selection, background reading, question formulation, information collection and evaluation, to a final product). At the beginning of the winter term, students will schedule a half-hour research consultation with a librarian at Bracken to review the database search strategy for their research question (submitted prior to).

The orientation session and workshops will be held at
1. September 24 from 10:30-11:30 am, Bracken Health Sciences Library conference room (Room 137)
2. October 15 from 10:30-12:00 pm, Bracken Health Sciences Library e-lab (Room 128). Laptops are provided but students can bring their own if they prefer.

The half hour research consultation with the librarian must be completed by January 30 of the Winter term each academic year.

The Library Guild to Translational Medicine can be found at: https://guides.library.queensu.ca/translational-medicine

4) Grant Writing Sessions: Full Day Workshop
The program will hold a one-day workshop for students in this course providing instruction on grant writing, and the CIHR Canada Graduate Scholarship application. Participation from the Office of Research Services at Queen’s and successful applications will be included. Strategies to highlight the student’s background and experience, as well as career goals and research environment will be covered, as well as an approach to clearly define the research question, hypothesis and methods. Themes taught in the online modules will be reinforced during this workshop.

Grading

1) Completion of Online Modules: (30%)
Successful and timely completion of the required online modules will contribute to 30% of the course mark. Each module includes an evaluation quiz at the end; students must achieve at least 80% to pass. Each student will be expected to submit their marks to determine this portion of the course grade by mid-December. Additionally, students will receive certification for successful completion of the modules; this certification is recognized nationally and internationally by organizations such as the American Medical Association, the FDA (Food and Drug Administration) and the National Institutes of Health. The N2 CITI modules were originally developed in the United States, but have been adapted to include Canadian content and are recognized by Health Canada and the TransCelerate Biopharma Group (a network of the major pharmaceutical companies).

2) Lab/Research Component: (20%)
The supervisor will provide a mark for the performance of the thesis research. Components that will be considered will include maintenance of accurate lab books/research notes, appropriate balance between independence and seeking assistance
and demonstration of appropriate lab/research skills (ie: completion of essays, attention to protocols, data analysis), and working well with other lab members.

3) **CIHR Canada Graduate Scholarship application:** *(45%)*
   In the winter term, students will prepare a CIHR Canada Graduate Scholarship application following the appropriate format given their program of study (MSc or PhD). Completion of the Medical Information Literacy Sessions will be counted as 5% of the mark. A detailed outline will be submitted one month prior to the end of the course and will be graded for 10% of the course mark. Feedback will be provided to help direct the final grant proposal, which will be due by early April, and graded for 35% of the course mark. Students will be evaluated on how well their proposals adhere to the principles taught in the online modules.

4) **Library Session (5%)**
   Students will obtain credit for attending the introduction session and hands-on workshop in the fall term (which will also be of benefit towards their work in TMED 800). The in-person feedback follow up session in January will conclude the full time commitment for the library component of the course. All 3 must be attended to achieve the All/None 5% course grading award.
TMED-811 Next Generation Sequencing

Course Coordinator: Dr Stephen Archer and Dr Charlie Hindmarch
Time: January 14, 21, & 28 (Mondays), 12:00-4:00 pm
Location: QCPU
Office Hours: By Appointment
Contact: Dr. Archer: Telephone: 613 533-6327; E-mail: stephen.archer@queensu.ca
Dr. Hindmarch: Internal Phone #: 77731; Email: c.hindmarch@queensu.ca

Course Description:

This 1-unit course will teach students the theoretical and practical basis of high-throughput genomics and transcriptomics. The course is a combination of classroom lectures, practical bench science and practical computing. Students will learn to design, implement and analyse an experiment using next generation sequencing technology and be expected to demonstrate these skills in graded assessment.

Course Objectives:

This course will ensure that students are qualified to design, implement and analyse Next Generation Sequencing experiments. Specifically, students will be expected to demonstrate that they can:

1. understand the differences between sequencing platforms and how these can be applied differently to different biological problems.
2. design experiments using Next Generation Sequencing technology with an understanding of biological and technical replication, the importance of appropriate controls and issues surrounding read length and depth.
3. learn and apply Unix scripting in order to align sequencing reads to reference genomes and identify differential expression and gene ontology patterns.
4. be able to interpret published material that relies upon these technologies and be critical with respect to experiment design, implementation and analysis.

Instructional Strategies:

This course will deliver lectures so that the theoretical aspects required to fully understand the practical course are properly introduced. Practical sessions will be split into wet laboratory sessions and dry computing sessions that will develop knowledge and understanding of Next Generation Sequencing technologies. One session will focus on understanding next generation sequencing from published biomedical research papers so that students are placed to read, understand and critique this technology.

Prerequisites:

Admission to the MSc or PhD stream of the Translational Medicine Graduate Program. Graduate students enrolled in other MSc or PhD programs within the Queen’s University Faculty of Health Sciences can also take the course if space is available.
**Course Outline**

Students will be taught knowledge with practical techniques that will allow them to design, implement, analyze and critique experiments using Next Generation Sequencing technologies. Lectures will teach the basic molecular biology that will allow them to understand how DNA and RNA can be sequenced and will use case studies to show how this technology can be utilized by the translational scientist. They will also learn how to utilize computer software including the command line, perform basic jobs and build these jobs into a pipeline that will allow them to analyze real RNA sequencing data.

**Course activity and weightings for Winter 2019:**

Session 1: Monday 14th January 12:00 – 16:00

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<th>Time</th>
<th>Activity</th>
<th>Description</th>
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<tr>
<td>1.0hour</td>
<td>Lecture</td>
<td>Next Generation Sequencing – from tissue to reads</td>
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<tr>
<td>1.0hour</td>
<td>Lecture</td>
<td>Next Generation Sequencing – from reads to results</td>
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<tr>
<td>2.0hour</td>
<td>Computing</td>
<td>Introduction to the Unix Shell</td>
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<td>Navigating and working with Files and Directories/ Pipes and filters</td>
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<td>Loops</td>
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<td>Shell Scripts</td>
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<td>Finding things</td>
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Session 2: 21st January 12:00 – 16:00

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<tr>
<th>Time</th>
<th>Topic</th>
<th>Description</th>
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<tr>
<td>4.0hour</td>
<td>Laboratory</td>
<td>Pipetting workshop</td>
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<td>RNA isolation and quality control</td>
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<td>Quality control of cDNA</td>
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<td>Fragmentation of cDNA</td>
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<td>Ligation of adaptors and nucleotide barcodes</td>
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<td>Library QC</td>
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Session 3: 28th January 12:00 – 16:00

Computing workshops will be supported by optional workshops run by the course teacher. Self learning tools will be made available to students at the beginning of the course

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<th>Topic</th>
<th>Description</th>
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<tbody>
<tr>
<td>4.0hour</td>
<td>Computing</td>
<td>Quality control of RNA sequence data</td>
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<td>Trimming read length</td>
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Grading:

Two assignments will be submitted no later than February 15th 2019. Full instructions will be provided.

1) Practical laboratory write-up 50%
Following the bench practical, students will be required to submit a write-up including sections:
   - Introduction to technology
   - Methodology
   - Results
   - Critical evaluation of data

2) Final Report (50%)
Students will be provided with real RNAsequencing data which they will need to analyze and present in a written report. The marks will be distributed according to the code that they submit which should be personalized and work when it is re-run by the course examiner (25% of the course mark) and the methodology, results and interpretation (25% of the course mark).
Academic Integrity

Studying at Queen’s means you are part of a scholarly community, one in which all members (students and faculty alike) are held in mutual respect. Academic Integrity also supports the reputation of Queen’s University; universities, and the degrees they confer, are only as strong as their reputations. Violating academic integrity can have serious consequences, from failing a course to being expelled from Queen’s. For more information visit the School of Graduate Studies policy on Academic integrity at http://www.queensu.ca/calendars/sgsr/Academic_Integrity_Policy.

A plagiarism software will be used to check all written assignments in this program to ensure academic integrity.

Changes in Registration, Status and Course Work

Course deletions and additions are recorded on an Academic Change Form, initialed by the Course Coordinator; signed by the Supervisor and Department Head; and submitted to the School of Graduate Studies for approval.

***Change of addresses cannot be accepted from via e-mail. Legally, a signature is required. Please fax or mail changes of address to the Grad School or bring to the Department.
Graduate Student Supervision

Supervisors
It is understood that the primary supervisory role rests upon your supervisor, and that your supervisor has the responsibility of overseeing your day to day progress, of directing research and of advising on a variety of academic matters. Finding a supervisor is the student’s responsibility. Please visit our website for details on all of our TMED faculty members and their research areas of interest. https://deptmed.queensu.ca/deptmed/academics/translational-medicine-graduate-programs/translational-medicine-graduate-faculty

Co-Supervisors
Sometimes it is useful for students to have two co-supervisors; for example, when the thesis topic spans two disparate fields, the particular expertise of each co-supervisor would be helpful. In such cases, one of the co-supervisors must be designated as the major supervisor (indicate this on the financial and supervisory statement) and will take primary responsibility for your academic supervision, especially in dealings with the graduate office. Students with co-supervisors should discuss the details of collaborative research with each of their supervisors. In cases of co-supervision, it may be appropriate to have an additional member on the supervisory committee. This decision should be made in consultation with the Graduate Program Director.

Supervisor’s Absence
If a graduate supervisor leaves the University, or is absent on sabbatical leave, or is required by the University to perform other duties that would impair effective supervision, the supervisor must make formal written arrangements for an interim supervisor to act as both an academic and research advisor. Copies of this written arrangement must be given to both to you, as the student, and the Graduate Program Assistant to be put in your student file.

Change of Supervisor
The initial selection of a supervisor is usually considered a permanent arrangement. If, however, you and your supervisor do not work well together, or find that your research interests are not compatible, a request to change supervisors may be made in writing to the Graduate Program Committee. In all cases, it is recommended that you discuss the proposed changes with all members of your supervisory committee and with the Graduate Program Director before a formal request for change is made.
Thesis Supervisory Committees

Each student will have a supervisory committee. Under ordinary circumstances, the members of the supervisory committee act as supplementary (or complementary) advisors and monitor your academic progress. In exceptional circumstances, the committee will act as a first “adjudicating” body in settling a disagreement between you and your supervisor. The membership of supervisory committees (for students new to the program) will be reviewed and approved by the Graduate Program Committee.

Formation
Supervisory committees must be formed within the first term of graduate study and are chosen in consultation with your supervisor. The members of the supervisory committee must be listed on your Financial and Supervisory Statement each year. The Graduate Program Committee may recommend changes if the committee structure is unsatisfactory (see below).

Composition
For an MSc student, the supervisory committee consists of the supervisor and at least two other members. Supervisory committee members may be from a different research group either inside or outside the Department.

For a PhD student, the supervisory committee consists of the supervisor, and at least two other members. Supervisory committee members may be from a different research group either inside or outside the Department. In some circumstances, students may have a committee member from outside Queen's. In such cases, a request must be made in writing to the Graduate Program Committee, stating reasons for the request and qualifications of the proposed committee member.

Supervisory Committee Meetings
The first meeting with your supervisory committee will normally take place by the end of the first term. The second meeting would take place by June 1 at the end of the first and second years. For the second-year meeting, the committee would decide if the student is ready to defend their thesis. For PhD students, these meetings would be held by June 1 at the end of each year, additional meetings can be held as needed. It is the responsibility of you and your supervisor, to schedule these meetings.

Expectations for Supervisory Committee Meetings
In advance of these meetings, you must prepare a written summary of research progress and future plans using a written report form that is a maximum of five pages and covers background, objectives, hypothesis, progress to date, future directions and milestones achieved (abstracts, papers, presentations, scholarships and awards). This is to be distributed to the supervisory committee members at least five working days prior to these meetings. Upon the conclusion of the meeting, a signed copy of this report will be submitted to the Graduate Program Assistant for your student file. You or your supervisors may also call a supervisory committee meeting any time to address academic problems or difficulties with your research program.
Annual Progress Reports

An Annual Progress Report form must be filed with the Departmental Graduate Program Assistant by June 1 at the end of the first and second year for MSc students and subsequent years for PhD students.

Thesis Examinations

Thesis Format

The decision about thesis format should be made between the student and the supervisor. The student should keep the supervisor updated about the writing plan and schedule, and the supervisor must be given ample time to review the entire thesis before it is submitted to the SGS in preparation of the oral defence.

PhD theses must not exceed 175 pages and MSc theses must not exceed 100 pages (not including appendices and references).

The SGS allows two thesis formats: Traditional or Manuscript. Please note that the SGS has formatting guidelines that must be followed (i.e., margins, font size, line spacing). These mandatory details, as well as thesis templates that we encourage you to use, can be found at http://queensu.ca/sgs/current-students/degree-completion.

Traditional Format:

Title Page
Abstract (maximum 350 words)
Statement of Co-Authorship (should describe the student’s contribution to the knowledge in the thesis, and the contribution of co-authors, if any)
Acknowledgements
Table of Contents
List of Tables
List of Figures
List of Abbreviations
Chapter 1: Introduction
Chapter 2: Literature Review (if necessary)
Chapter 3 to n: Body of Thesis (Materials and Methods, Results, Discussion)
Chapter n + 1: Summary and/or Conclusions and Future Directions
References
Appendices

Manuscript Format:

The research included in this format need not be published nor accepted for publication at the time of the thesis defence, but this format is generally intended for use when 1 or more manuscripts with the student as first or co-first author have been generated prior to the defence.
Publication or acceptance for publication in no way supersedes the University’s judgement of the work. Results that the student wishes to include in the thesis that do not fit within a particular manuscript may be included in an appendix. In this format, references used within each chapter will be cited at the end of that chapter. A pre-print formatted version of the manuscript must be used rather than reprint so that the format is consistent throughout.

Title Page
Abstract (not more than 350 words)
Statement of Co-Authorship (should describe the student’s contribution to the knowledge in the thesis, and the contribution of co-authors, if any; this information should be included in more detail at the beginning of each chapter that is a manuscript)
Acknowledgements
Table of Contents
List of Tables
List of Figures
List of Abbreviations
Chapter 1: Introduction
Chapter 2: Literature Review (if necessary)
Chapter 3 to n: Manuscripts
Chapter n + 1: Discussion/Summary/Conclusions and Future Directions
References
Appendices

PhD Thesis Defence Committee

The PhD Thesis Defence Committee must be approved by the GPC and is chosen for the expertise of its members and ability to examine the student. Committee members will include:

Chairperson (chosen by the Thesis Coordinator, Rose Silva, from SGS)
Department Head or Delegate
Supervisor and/or co-supervisor
Internal Examiner (Department of Medicine faculty member)
Internal/External Examiner (faculty member from outside the Department of Medicine, but within the Faculty of Health Sciences)
External Examiner (from outside of Queen’s University, can participate by videoconference)

MSc Thesis Defence Committee

The MSc Defence Committee must be approved by the GPC and is chosen for the expertise of its members and ability to examine the student. Committee members will include:

Chairperson (chosen by the Graduate Program Director)
Department Head or Delegate
Supervisor and/or co-supervisor
Internal Examiner (Department of Medicine faculty member)
Internal/External Examiner (faculty member from outside the Department of Medicine, but within the Faculty of Health Sciences)

An External Examiner is not required but may replace the Department member following the advice of the supervisor and approval by the GPC. In these cases, the supervisor will be responsible for arranging reimbursement of the expenses of the external examiner.

**Thesis Submission and Defence Procedures**

Please review the SGS requirements on “Completing Your Degree” at [https://www.queensu.ca/sgs/current-students/degree-completion](https://www.queensu.ca/sgs/current-students/degree-completion). You must conform to these requirements, as well as to those described in the Faculty of Health Sciences Grad Council Manual.

**Procedures for MSc Thesis Submission and Oral Examination**

The successful and timely completion of your MSc requires careful planning and a recognition of other faculty commitments, vacation schedules and the need for program staff involvement. It is your responsibility to plan ahead to ensure you complete your studies on time.

Approximately 8 weeks before your planned defence, you should confer with your supervisor to come up with a list of potential examiners. Your supervisor is expected to contact potential examiners to confirm their willingness to participate. Once confirmed, and at least 6 weeks prior to the defence, their names should then be submitted to the Graduate Program Assistant, with the following additional pieces of information:

- Thesis title
- Preferred dates/times for the defence
- Brief, specific expertise of the proposed examiners

Following this, the list of proposed examiners will be reviewed by the GPC for approval and the supervisor notified if there are any concerns. Then, the Graduate Program Assistant will work with the potential examiners to schedule the defence.

The final version of your thesis must be approved by your supervisor before submission – by submitting your thesis it is assumed you have your supervisor’s approval. It is your responsibility to ensure that your thesis conforms to the requirements set out in this document, and those of the Faculty of Health Sciences and of the SGS. You should submit an electronic version of your thesis to all examiners at least 10 working days prior to the defence, as well as providing a print version (if requested).
The Oral Thesis Examination Form will need to be signed by your supervisor and the Department Head (or the Graduate Program Director) and submitted at least 10 days prior to your defence.

It is your responsibility to work with the Graduate Program Assistant to ensure that all audio/visual equipment is available and that you are able to operate it independently. The Graduate Program Assistant may not be available on the day of your defence.

An Evaluation Form obtained from the Graduate Program Assistant should be completed and returned to the Graduate Program Assistant at least 3 working days prior to the defence date by any member of the examining committee who feels that the defence should NOT go ahead. If two or more negative reports are submitted, the student and supervisor will be notified by the Chair of the Examining Committee or the Graduate Program Director to determine if they want to proceed with the oral thesis exam. The SGS will also be notified. The decision of whether to proceed or not lies with the student. If the decision is made to postpone, the Chair must communicate to the supervisor and student the required revisions to the thesis and that the student has the right to submit the revised thesis at a later date. Following the subsequent submission of the revised thesis, the oral examination must take place. The SGS will be informed when an oral thesis examination is postponed due to negative reports.

At the beginning of the scheduled defence you will be asked to leave the room briefly while the committee confers and confirms that the oral exam should proceed. Any concern about the thesis and/or the student’s readiness to defend should have been flagged using the form and procedure described above. Following this, you will be invited back into the room to give a 20-minute presentation summarizing the content of your thesis. This will be followed by a question period, normally comprised of two rounds of questions starting with the examiner most distant from the student, and ending with the supervisor. The scope of potential questions is broad, but could include detailed discussion of the research objectives and hypothesis, the chosen methods including strengths and weaknesses, interpretation and evaluation of results, and relevance of the thesis findings and conclusions to the research field. Every student will be expected to address the translational aspects of their work, how they expect their results to directly or indirectly benefit patients or populations and the ways their research was informed by patient needs and concerns. The examination will normally take 90–120 minutes in total.

Following the oral examination, you will again be asked to leave the room. The Chairperson will discuss the evaluation of each of the examiners and determine the overall assessment of the exam. Once invited back into the room, you and your supervisor will be notified of the outcome by the Chair. The outcome will be reported in writing to the SGS using the examination form. Examiners will refer to the General Regulations and notes for Examiners document created by SGS.

The SGS will notify you (with a copy to the program) of the completion of your degree requirements only after submission of four unbound copies of your final thesis (with required revisions). Tuition fees are charged up to the date of receipt of the completed thesis.
Procedures for PhD Thesis Submission and Oral Examination

The successful and timely completion of your PhD requires careful planning and a recognition of other faculty commitments, vacation schedules and the need for program staff involvement. It is your responsibility to plan ahead to ensure you complete your studies on time.

Approximately 8 weeks before your planned defence, you should confer with your supervisor to come up with a list of potential examiners. Your supervisor is expected to contact potential examiners to confirm their willingness to participate. Once confirmed, and at least 6 weeks prior to the defence, their names should then be submitted to the Graduate Program Assistant, with the following additional pieces of information:

- Thesis title
- Preferred dates/times for the defence
- Brief, specific expertise of the proposed examiners

Following this, the list of proposed examiners will be reviewed by the GPC for approval and the supervisor notified if there are any concerns. Then, the Graduate Program Assistant will work with the potential examiners to schedule the defence.

The final version of your thesis must be approved by your supervisor before submission – by submitting your thesis it is assumed you have your supervisor’s approval. It is your responsibility to ensure that your thesis conforms to the requirements set out in this document, and those of the Faculty of Health Sciences and of the SGS. You should submit an electronic version of your thesis to all examiners at least 25 working days prior to the defence, as well as providing a print version (if requested). The program will cover printing costs up to a maximum of $200.

The Oral Thesis Examination Form may be completed by the Grad Assistant, then signed by your supervisor and the Department Head (or the Graduate Program Director) and submitted at least 25 working days prior to your defence.

It is your responsibility to work with the Graduate Program Assistant to ensure that all audio/visual equipment is available and that you are able to operate it independently. The Graduate Program Assistant may not be available on the day of your defence.

An Evaluation Form obtained from the Graduate Program Assistant should be completed and forwarded to the Graduate Program Assistant at least 3 working days prior to the defence date by any member of the examining committee who feels that the defence should NOT go ahead. If two or more negative reports are submitted, the student and supervisor will be notified by the Chair of the Examining Committee or the Graduate Program Director to determine if they want to proceed with the oral thesis exam. The SGS will also be notified. The decision of whether to proceed or not lies with the student. If the decision is made to post-pone, the Chair must communicate to the supervisor and student the required revisions to the thesis and that the student has the right to submit the revised thesis at a later date. Following the subsequent
submission of the revised thesis, the oral examination must take place. The SGS will be
informed when an oral thesis examination is postponed due to negative reports.

At the beginning of the scheduled defence you will be asked to leave the room briefly while the
committee confers and confirms that the defence should proceed. Any concern about the thesis
and/or the student’s readiness to defend should have been flagged using the form and procedure
described above. Following this, you will be invited back into the room to give a 20-minute
presentation summarizing the content of your thesis. This will be followed by a question period,
normally comprised of two rounds of questions starting with the examiner most distant from the
student, and ending with the supervisor. The scope of potential questions is broad, but could
include detailed discussion of the research objectives and hypothesis, the chosen methods
including strengths and weaknesses, interpretation and evaluation of results, and relevance of the
thesis findings and conclusions to the research field. Every student will be expected to address
the translational aspects of their work, how they expect their results to directly or indirectly
benefit patients or populations and the ways their research was informed by patient needs and
corns. The examination will normally take 120 minutes in total.

Following the oral examination, you will again be asked to leave the room. The Chairperson will
discuss the evaluation of each of the examiners and determine the overall assessment of the
exam. Once invited back into the room, you and your supervisor will be notified of the outcome
by the Chair. The outcome will be reported in writing to the SGS using the examination form.
Examiners will refer to the General Regulations and notes for Examiners document created by
SGS.

The SGS will notify you (with a copy to the program) of the completion of your degree
requirements only after submission of four unbound copies of your final thesis (with required
revisions). Tuition fees are charged up to the date of receipt of the completed thesis.
Withdrawal on Academic Grounds and Appeals of Same (see SGS Calendar, General Regulations, Graduate Degree Programs-General, Withdrawal on Academic Grounds)

Any academic decision can be appealed by the student under the SGS General Regulation Appeals Against Academic Decisions. This SGS regulation (Withdrawal on Academic Grounds) does not apply to the appeal of an academic decision but rather outlines the procedures whereby a graduate program recommends that a student be required to withdraw on academic grounds, and the procedures and responsibilities for deciding on the outcome of this recommendation. Note that a recommendation under a. or b. below, may be appealed by the student under the SGS General Regulation Appeals Against Academic Decisions.

Some Graduate Programs have separate procedures to be followed that would be enacted prior to making a recommendation under the procedures below.

Prior to making a recommendation under the procedures below, the faculty member(s), and/or the Head/Director or Graduate Coordinator/Graduate Program Director of the Program shall meet with the student to discuss their academic situation, the possible recommendation of withdrawal, and the grounds for the recommendation. The student may invite a representative to the meeting. If the student intends to be accompanied by legal counsel, he or she must provide at least 48 hours’ notice to the department/program/faculty attendees who reserves the right to reschedule the meeting if notice is not given. If the student does not wish to attend the meeting, the student can submit a written statement. If the student does not respond to an invitation to attend the meeting, or does not make a written statement, the process will continue without the student’s input.

The student shall be informed in writing when the Graduate Program shall be making a recommendation of withdrawal to the Council and shall be informed of the grounds for the recommendation.

Unsatisfactory performance by the student during the program may cause proceedings to be instituted by the Program requiring the student to withdraw. There are several circumstances which may lead to this request, and, as these differ in certain important respects, the procedures of appeal and review also differ. The Council has the following responsibilities in each situation:

**a. Failure of a Primary Course:** In cases when a student does not achieve B- (B minus) in a primary course, the Head/Director or Graduate Coordinator/Graduate Program Director of the Program may recommend to the Chair of Council that the student:

   a) repeat the examination (or equivalent) within one year after the original examination (or equivalent), or
   
   b) repeat the course, or
   
   c) take a substitute course. If approved, a student may take another course approved by the Chair of Council to allow them the opportunity to complete the degree requirements.

If such a recommendation is not made or, if made, is not approved by the Council, any student who fails to obtain the required standing in any primary course shall be required to withdraw.
Council, or its duly empowered Chair or Associate Chair, shall examine the case to see that proper procedures were followed, and if this is ascertained, the Chair of the Council shall notify the SGS, who shall inform the student of the Program’s recommendation and the confirmation of the recommendation by the Council. Review of the Program recommendation by the Council or its duly empowered Chair or Associate Chair, is limited to procedural matters and any extenuating circumstances only and does not entail assessing the academic decision itself.

If the case is evidently straightforward, it may be approved by the Chair/Associate Chair and then must be submitted for approval and action to SGS (not GSEC), and also reported back to Council. Otherwise, the request will be placed on the agenda for decision by Council at its next meeting.

All such Council decisions are subject to appeal, under the general regulations of the SGS. It is the responsibility of the Chair or Associate Chair of Council to represent Council and explain Council’s decision to the SGS Academic Appeal Board, if/as required.

b. Withdrawal on General Academic Grounds: There are other academic circumstances that could lead to a recommendation that the student be required to withdraw. To cite several examples: in the judgment of the supervisor or a supervisory committee the student may be making unsatisfactory progress in research; the student may have failed the comprehensive examination; there may have been marginal performance in seminars; preliminary drafts of chapters of the thesis may reveal an unsatisfactory standard of scholarship; or in the judgment of the supervisor or a supervisory committee or other Graduate Program academic committee, the student's overall academic performance in coursework is not acceptable. For such cases the Program shall recommend withdrawal to Council and shall inform the student in writing that such a recommendation is being made and the grounds for this recommendation.

The Program recommendation shall be taken to a meeting of Council. The Chair of Council shall inform the student that he or she may attend the meeting, with or without a representative, and that he or she is entitled to present the case. If the student intends to be accompanied by legal counsel, he or she must provide at least 48 hours’ notice to the Chair of Council, who reserves the right to reschedule the discussion of the matter to another meeting of the Council, if notice is not given. If the student does not wish to attend the meeting of Council, the student can submit a written response to the recommendation, for circulation to the Council and for discussion by the Council at the meeting. If the student does not respond to an invitation to attend the meeting, or does not make a written submission, the process will continue without the student’s input. Review of the Program recommendation by the Council is limited to procedural matters and any extenuating circumstances and does not entail an assessment of the academic decision itself.

If the Council approves the recommendation of the Program, the Chair of the Faculty Graduate Council shall report the case to the Dean of the School of Graduate Studies who shall notify the student in writing of the recommendation by the Council. This letter will also inform the student of the relevant appeal procedure under SGS General Regulation Appeals Against Academic Decisions and will inform the student of the academic services provided by the Coordinator of Dispute Resolution Mechanisms and the Society of Graduate and Professional Students’ Student Advisors.
All such Council decisions are subject to appeal, under the SGS General Regulation *Appeals Against Academic Decisions*. It is the responsibility of the Chair or Associate Chair of Council to represent Council and explain the decision to the SGS Academic Appeal Board, if/as required. The Graduate student representative to Council will not be permitted to attend that portion of a Council meeting at which student matters pertaining to Sections 2.2, 2.3 or 2.4 are discussed.
**Housing**

Community Housing manages the student rental properties owned by Queen's University. This includes two apartment complexes located at west campus – An Clachan and John Orr Tower – as well as a variety of apartments and houses in the Student Village (Core Rentals) around campus.

Community Housing also operates an Accommodations Listing Service where external landlords can post listings for student rental units. The Landlord Contract Program is also managed by Community Housing.

**Location**
Community Housing is located at 169 University Avenue at the corner of University and Clergy West. Paid parking is available underground at the Queen's Centre, entrance is off of Division Street.

**Hours of Operation:**
Telephone reception 8:30 am to 4:30 pm. Open to Walk-in Customers from 9:00 am to 4:00 pm, Monday to Friday (excluding holidays). They are open over the lunch hour.
Phone: 613-533-2501   Fax: 613-533-2196   Email: community.housing@queensu.ca

Here are some helpful links for more information on housing:

http://quic.queensu.ca/resources/housing-support/long-term-options/

https://community.housing.queensu.ca/
Student Resources and Contacts on Campus

Ban Righ Centre

Assists women of all ages, especially those who are returning to university after a time away, to continue formal or informal education. Women from diverse backgrounds find community, practical, personal and financial support in an informal setting prepared to meet their particular needs. This environment supports academic endeavours, encourages mutuality and equality, and nurtures and respects women. These services are offered without charge or membership. Contact the Ban Righ Centre for more information.

Career Services

The central provider of career education and employment support services at Queen's University for undergraduate, graduate students and recent alumni from all disciplines. We offer a comprehensive range of accessible services to support and empower students in making informed decisions about their career, further education and employment goals. Visit their website for more information at: https://careers.queensu.ca/

Campus Bookstore

A not-for-profit corporation that endeavors to distribute required course material at the lowest possible price to students, while operating a comprehensive University bookstore for the Queen's community.

The Campus Bookstore is located in Clark Hall on Queen's University Main Campus. Open regular hours from 9 AM to 6 PM, Monday to Friday, and, 10 AM to 5 PM on Saturday. Open 24 hour-a-day at http://www.campusbookstore.com.

Campus Computer Sales & Service

- The Queen's Managed Mobile Plans
  The Queen's Managed Mobile Plans are available to Queen’s staff and students, visit their website for more information at http://www.queensu.ca/its/
- Departmental Orders
  If you are inquiring about purchasing IT equipment for your department, please visit the Strategic Procurement Services Preferred IT Supplier webpage and follow their Getting Started Instructions so you can purchase directly from their Preferred Suppliers list.
- Personal IT Purchases
  For Personal IT purchases visit the Employee Discounts page of the Strategic Procurement Services website or the Campus Bookstore.
- Computer Software
  Visit the ITS Supported Software page for more information on software and instructions on how to obtain it.
Equity and Human Rights

Please see the links below for information for graduate students about harassment and harassment protocols, and information for faculty regarding the response protocol should a graduate student report concerns about discrimination or harassment from a faculty member or staff member.

Information for Graduate Students about Harassment and Harassment Protocols at Queen’s University and Response protocol.

Libraries

There are several libraries on campus which you can use. Bracken Health Sciences Library is located on the Main Floor of Botterell Hall, 18 Stuart Street.

For more information on all the libraries on campus see the library website at:
http://library.queensu.ca.

Learning Commons

The Learning Commons is located on the ground floor of Joseph S. Stauffer Library, the Humanities, Social Sciences, Business, Government Documents, Data and Maps Library on campus. Along with our partners, the Adaptive Technology Centre, Student Academic Success Services, Queen’s University Library, and ITServices, the Learning Commons strives to offer students many of the above listed services.

For more information on the Queen's Learning Commons, please feel free visit their website at:
https://www.queensu.ca/qlc/about/what-learning-commons

School of Graduate Studies

All regulations governing graduate studies at Queen’s are established by the School of Graduate Studies (SGS). Also there are a number of resources and supports relevant to wellness, balance and the graduate student experience available at: https://www.queensu.ca/sgs/current-students/sgs-habitat.

For more information, please contact them at:
Gordon Hall, Room 425
613-533-6100  grad.studies@queensu.ca
http://queensu.ca/sgs/home
Queen’s Centre for Teaching and Learning (CTL)

The CTL offers a wide variety of programs and services that are designed to meet the teaching and learning needs of students/post-doctoral fellows, staff and faculty meetings.

For more information contact them at:
Queen’s Centre for Teaching and Learning
Macintosh-Corry Hall, F200
613-533-6428
ctl@queensu.ca
https://www.queensu.ca/ctl/home

Student Academic Success Services

Student Academic Success Services offers academic support to students who wish to develop their skills in critical thinking, reading, learning, studying, writing, and self-management. We welcome Queen’s undergraduate and graduate students at all stages of program completion and all levels of ability. Contact them at: https://sass.queensu.ca/

Student Health and Wellness Services

Student Wellness Services supports the personal, academic, and social development of students at Queen's University by providing a range of programs and services. Our mission is to provide a welcoming, confidential, and integrated service that is responsive to the needs of students.
http://www.queensu.ca/studentwellness/

Student Learning Accommodations

The Translational Medicine Graduate Program is committed to accommodating students with disabilities. For more information, see the School of Graduate Studies Accommodations policy and the Roles & Responsibilities in Accommodating Graduate Students with Disabilities document.

Translational Medicine Graduate Program

For any inquiries regarding the Translational Medicine Graduate program, please contact:
Translational Medicine Graduate Program
Department of Medicine
Etherington Hall, Room 3049
613-533-6000 Ext. 74148
tmed@queensu.ca

46
Acknowledgements

This handbook was written with reference to the Pathology and Molecular Medicine Graduate Handbook, the Faculty of Health Sciences Graduate Council Manual and from the School of Graduate Studies.
Appendices
Appendix 1

Annual Progress Report

Student Name: __________________________ ID #: __________________

Program: __________ Start Date: __________ Year in Program: __________

Thesis Topic: ______________________________________________

Courses Completed to Date Grade Courses Completed to Date Grade

___________________________ __________ ____________________________ __________

___________________________ __________ ____________________________ __________

___________________________ __________ ____________________________ __________

Program requirements still to be completed:

____________________________________________________________________

Please provide a summary of the progress you have made on your thesis research.

____________________________________________________________________

Progress Rated: ☐ Satisfactory ☐ Unsatisfactory ☐ Conditional
To be completed by the student:

Please report on papers submitted or published, conferences, presentations, grant applications, and/or professional development.

Please provide details on your plans and goals for each term in the coming year.

If you wish, please comment on the supervisor(s)/committee evaluation. If applicable, please also indicate if there is anything that has hindered progress in the last year.
To be completed by the supervisor(s) and/or committee members:

Please comment on the student’s progress, strengths and weaknesses. Indicate whether proposed goals are reasonable and achievable. Include any concerns you may have.

________________________________________________________________________

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________________________________________________________________________

Supervisor

Dept.

Signature

Co-Supervisor

Dept.

Signature

Supervisory Committee Member

Dept.

Signature

Supervisory Committee Member

Dept.

Signature

Student

Signature

Date: _____________________________
## Graduate Programs in the FHSGC

<table>
<thead>
<tr>
<th>Graduate Department/Program Name</th>
<th>Graduate Credentials Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aging and Health</td>
<td>Grad. Dipl. (A.H), M.Sc. (A.H.), Ph.D.</td>
</tr>
<tr>
<td>Biomedical and Molecular Sciences</td>
<td>M.Sc. (A.S.), M.Sc., Ph.D., combined B.Sc./M.Sc., Grad. Dipl. (PHMI), Grad. Dipl. Bi, M.B.I.</td>
</tr>
<tr>
<td>Collaborative Program in Biostatistics</td>
<td>M.Sc.</td>
</tr>
<tr>
<td>Collaborative Program in Cancer Research</td>
<td>M.Sc., Ph.D.</td>
</tr>
<tr>
<td>Combined MD/PhD – MD/Master’s Programs</td>
<td>MD/Ph.D., MD/Master’s</td>
</tr>
<tr>
<td>Health Quality</td>
<td>M.Sc. (H.Q.), Ph.D.</td>
</tr>
<tr>
<td>Medical Sciences</td>
<td>G.Dip., P.M.M.Sc.</td>
</tr>
<tr>
<td>Neuroscience</td>
<td>M.Sc., Ph.D., combined B.Sc./M.Sc.</td>
</tr>
<tr>
<td>Nursing</td>
<td>M.N.Sc., M.N. (PHCNP), PHCNP Diploma, Ph.D.</td>
</tr>
<tr>
<td>Occupational Therapy</td>
<td>M.Sc. (O.T.)</td>
</tr>
<tr>
<td>Pathology and Molecular Medicine</td>
<td>M.Sc., Ph.D., combined B.Sc./M.Sc.</td>
</tr>
<tr>
<td>Physical Therapy</td>
<td>M.Sc. (P.T.)</td>
</tr>
<tr>
<td>Public Health Sciences</td>
<td>M.P.H., M.Sc., Ph.D.</td>
</tr>
<tr>
<td>Rehabilitation and Health Leadership</td>
<td>D.Sc.</td>
</tr>
<tr>
<td>Rehabilitation Science</td>
<td>M.Sc., Ph.D.</td>
</tr>
<tr>
<td>Translational Medicine</td>
<td>M.Sc., Ph.D.</td>
</tr>
</tbody>
</table>

Approved by the Graduate Studies Executive Council, February 8, 2010
Revised September 2018
The PURPOSE of this manual is to set out the guidelines for the organization and operation of the Faculty of Health Sciences Graduate Council (FHSGC), and to assist those involved in these tasks. The guidelines supplement regulations described in the Calendar of the School of Graduate Studies (SGS) (http://queensu.ca/calendars/sgsr/) and in the Governing Framework for Graduate Studies, April 2009. The guidelines set out in this Manual will be subject to annual review at the first Council meeting of the academic year.
1. **ORGANIZATION**

1.1 Membership

The membership of Faculty of Health Sciences Graduate Council (FHSGC) shall be composed of:
- all faculty in the listed programs who are members of the School of Graduate Studies (SGS)
- all Graduate Coordinators or Graduate Program Directors of the listed programs
- an Associate Dean of the Faculty assigned by the faculty office
- an Associate Dean of the SGS assigned to that faculty
- a Senior Officer of the SGS, normally, the Director of Admissions and Student Services
- One Master’s graduate student and one Doctoral graduate student from different graduate programs elected by the Society of Graduate and Professional Students (SGPS)

According to Governing Framework for Graduate Studies (April 2009), faculty members of the School are:

i. Heads/Directors of Departments/Programs offering graduate degree programs
ii. Instructors of graduate courses in the current academic year, or either of the two preceding academic years
iii. Supervisors of graduate students in the current academic year, or of the two preceding academic years

**Voting members** of the FHSGC shall be:

- the Faculty Associate Dean
- all Graduate Coordinators or Graduate Program Directors of the listed programs (or delegates)
- the Graduate student representatives to Council (or delegates)

1.2 Faculty Associate Dean

The Faculty Associate Dean, appointed by the Dean of the FHS, oversees administrative matters, including policy development and selection/election of representatives to various committees, represents the FHS on the Graduate Studies Executive Council (GSEC) (with the Chair of Council), liaises with the decanal teams in the FHS and the SGS, the School of Medicine Health Sciences Education Council and the SGPS, and advises graduate students and faculty regarding academic appeals/complaints, policies and procedures.

1.3 Chair and Associate Chair

The Chair and Associate Chair are elected for three-year terms (Section 1.5). These terms are partially overlapping to ensure continuity of the Council. The Chair and Associate Chair must be either faculty members of Council, Graduate Coordinators, or Graduate Program Directors, and must be from different programs. Liaison with the Departments/Programs is chiefly through
the Graduate Coordinators/Graduate Program Directors. The Associate Chair may substitute for the Chair in any capacity by mutual agreement. The Associate Chair handles matters relating to students in the Chair’s Program. The Chair of Council is a member of the GSEC and the SGS Fellowship Committee.

1.4 Meetings

All administrative matters pertaining to Council meetings shall be under the auspices of the Faculty of Health Sciences. Council will meet no fewer than three times a year. Meetings can be called by the Chair as necessary, at the request of the Dean or Faculty Associate Dean, or at the written request of six members of Council. A memorandum will be sent to the Department/Program Heads/Directors, Graduate Coordinators/Graduate Program Directors, and Graduate Assistants with the schedule of the Council meetings for the academic year. Meetings shall be scheduled so that any business that must come forward to GSEC can be forwarded in time for GSEC’s agenda. Any business of Council that has to be approved by GSEC will be reported to that body using the formats and forms as required by GSEC and according to any GSEC deadlines. Items requiring GSEC approval include: Calendar material and course offerings, graduate degree program requirements and changes to same, and new graduate degree programs.

Agenda items should be submitted to Council’s administrative assistant one week before a scheduled meeting. Programs with items on the agenda should ensure that the item has received appropriate discussion within the Program, ensure representation by a spokesperson on the matter, and provide supporting materials for circulation at the meeting.

Decisions of Council shall be made only with the consent of a quorum of members, quorum being defined as greater than half of the voting members of Council. Members may vote in person or electronically. Resolutions submitted to Council shall be decided by a majority of votes, and in the case of a tie, the Chair shall have the deciding vote. Unless a poll is demanded, the declaration of the Chair of the meeting recorded in the minutes that a resolution has been carried or has not been carried shall be conclusive evidence of the fact. Bourinot’s *Rules of Order*, in its most recent edition, shall govern the meetings of Council.

1.5 Nominations and Elections

A Nominating Committee, composed of the Chair, Associate Chair and Faculty Associate Dean, and in consultation with the Heads/Directors of Departments/Programs and Graduate Coordinators/Graduate Program Directors, will prepare a slate of nominees willing to serve on Senate, standing committees, and for the positions of Chair and Associate Chair as needed. This slate will be brought before a meeting of Council for approval. Additional nominations may be received at that time. If the number of nominees exceeds the number of positions, the Chair and Associate Chair will conduct the necessary elections by secret ballot of the voting members of Council. The names of nominees approved by Council will be forwarded to the SGS, and to the FHS Nominating Committee and to Faculty Board, if necessary.
2. STUDENT MATTERS CONSIDERED BY COUNCIL
It is the responsibility of the Graduate Program to ensure that students receive adequate academic counselling with regard to his/her academic program, which must meet the stated calendar requirements.

2.1 Applications and Acceptances

For acceptance into a regular graduate program, candidates must have completed an Honours degree or equivalent. Students who have only a general degree can be admitted for a qualifying year.

PROCEDURE: A Graduate Program wishing to recommend a student for admission will complete an online decision sheet for the attention of SGS. Any conditions placed on acceptance should normally be met before the time of registration.

2.2 Direct Entry into a Doctoral Degree Program (see SGS Calendar, Admission and Registration, Academic Qualifications for Admission):

In exceptional cases, applicants who hold an Honours bachelor's degree with an overall A average and who demonstrate advanced research ability may be granted direct admission to a doctoral degree program upon written recommendation of the admitting Graduate Program and approval of Council and the SGS. All other procedures for application and acceptance also apply. Students admitted in this way must complete a minimum of two session-length or four term-length graduate courses during the doctoral program.

NOTE: Students admitted to a doctoral program either through direct entry or promotion may revert to the master's program within the same department/program in exceptional circumstances and with the approval of the supervisor(s), the department/program and the School of Graduate Studies.

PROCEDURE: A written request documenting the case is sent by the Program to the Chair of Council. If the case is evidently straightforward, it may be approved by the Chair/Associate Chair and then must be submitted for approval and action to SGS, and also reported back to Council. Otherwise, the request will be placed on the agenda for decision by Council at its next meeting.

2.3 Advanced Standing for Prior Course Work

A. Coursework completed for a graduate credential that is laddered (or stacked) with a higher graduate credential

Courses that are successfully completed as part of a Queen's University Senate–approved Graduate Certificate or Graduate Diploma may be counted toward the coursework requirements of an appropriate higher graduate credential, where the Graduate Certificate or
Graduate Diploma has been designed and approved to ladder to a higher level graduate credential. The number of courses for which advanced standing and equivalent credit may be granted, and the minimum final grade requirement(s), if applicable, in the course(s) under consideration, must be consistent with the approved structure and inter-relationship of the two graduate credentials.

PROCEDURE: A written request documenting the case is sent by the Graduate Department or Program to the School of Graduate Studies. Documentation should include a rationale for the request, and the department’s/programs verification that the course or courses are eligible to be counted towards a higher level graduate credential. If the request is approved the School of Graduate Studies will inform the student, the Department/Program and the Office of the University Registrar (if required). The student’s Queen’s University transcript may be revised to indicate that some or all of the coursework in the Graduate Certificate or Graduate Diploma has been counted towards the higher-level graduate credential.

B. Individual course(s)
Some students, after admission, may wish to have related courses of appropriate levels credited to their current programs. All such requests are considered on their individual merits. If requested by the Graduate Department or Program and approved by Council, the coursework requirement for the Queen’s graduate degree may be reduced accordingly. The following working rules have been employed:
   i. The course was not used for another degree or credential.
   ii. The course was not used to obtain admission.
   iii. The course does not duplicate the content of another course taken by the student.
   iv. The course is equivalent in hours and level to a course of the Queen's program for which it is to substitute.

Requests for Advanced Standing should be made prior to admission, but not later than the end of the first term after admission.

PROCEDURE: A written request documenting the case is sent by the Graduate Department or Program to the Chair of Council c/o the School of Graduate Studies. Documentation should include a rationale for the request, verification that the course or courses are equivalent in depth and breadth to the Queen’s graduate course, and course description and/or outlines of the course or courses in question. If the case is evidently straightforward, it may be approved by the Chair/Associate Chair and then must be submitted for approval and action to SGS and also reported back to Council. Otherwise, the request will be placed on the agenda for decision by Council at its next meeting.

If the request is approved the School of Graduate Studies will inform the student, the Department/Program and the Office of the University Registrar (if required). The student’s Queen’s University transcript may be revised to indicate that a course or courses previously completed has or have been counted towards the current graduate degree.
C. Graduate courses completed in a combined Bachelor’s/Master’s degree program

Graduate courses that are successfully completed as part of a Queen’s University Senate–approved combined Bachelor’s/Master’s degree program may be counted toward the coursework requirements of both the Bachelor’s degree and the subsequent Master’s degree. The number of courses for which advanced standing may be granted, restrictions on including cross-listed courses, and the minimum final grade requirement(s), if applicable, in the course(s) under consideration, must be consistent with the approved structure and policies of the combined Bachelor’s/Master’s degree program.

PROCEDURE: A written request documenting the case is sent by the Graduate Department or Program to the School of Graduate Studies. Documentation should include a rationale for the request, and the department’s/programs verification that the course or courses are eligible to be counted towards the Master’s degree.

If the request is approved the School of Graduate Studies will inform the student, the Department/Program and the Office of the University Registrar (if required). The student’s Queen’s University transcript may be revised to indicate that some of the coursework in the Bachelor’s degree has been counted towards the Master’s degree.

2.4 WITHDRAWAL ON ACADEMIC GROUNDS AND APPEALS OF SAME (see SGS Calendar, General Regulations, Graduate Degree Programs-General, Withdrawal on Academic Grounds)

Any academic decision can be appealed by the student under the SGS General Regulation Appeals Against Academic Decisions. This SGS regulation (Withdrawal on Academic Grounds) does not apply to the appeal of an academic decision but rather outlines the procedures whereby a graduate program recommends that a student be required to withdraw on academic grounds, and the procedures and responsibilities for deciding on the outcome of this recommendation. Note that a recommendation under a. or b. below, may be appealed by the student under the SGS General Regulation Appeals Against Academic Decisions. Some Graduate Programs have separate procedures to be followed that would be enacted prior to making a recommendation under the procedures below.

Prior to making a recommendation under the procedures below, the faculty member(s), and/or the Head/Director or Graduate Coordinator/Graduate Program Director of the Program shall meet with the student to discuss their academic situation, the possible recommendation of withdrawal, and the grounds for the recommendation. The student may invite a representative to the meeting. If the student intends to be accompanied by legal counsel, he or she must provide at least 48 hours notice to the department/program/faculty attendees who reserves the right to reschedule the meeting if notice is not given. If the student does not wish to attend the meeting, the student can submit a written statement. If the student does not respond to an invitation to attend the meeting, or does not make a written statement, the process will continue without the student’s input.
The student shall be informed in writing when the Graduate Program shall be making a recommendation of withdrawal to the Council, and shall be informed of the grounds for the recommendation.

Unsatisfactory performance by the student during the program may cause proceedings to be instituted by the Program requiring the student to withdraw. There are several circumstances which may lead to this request, and, as these differ in certain important respects, the procedures of appeal and review also differ. The Council has the following responsibilities in each situation:

a. Failure of a Primary Course: In cases when a student does not achieve B- (B minus) in a primary course, the Head/Director or Graduate Coordinator/Graduate Program Director of the Program may recommend to the Chair of Council that the student:
   a) repeat the examination (or equivalent) within one year after the original examination (or equivalent), or
   b) repeat the course, or
   c) take a substitute course. If approved, a student may take another course approved by the Chair of Council to allow them the opportunity to complete the degree requirements.

If such a recommendation is not made or, if made, is not approved by the Council, any student who fails to obtain the required standing in any primary course shall be required to withdraw. Council, or its duly empowered Chair or Associate Chair, shall examine the case to see that proper procedures were followed, and if this is ascertained, the Chair of the Council shall notify the SGS, who shall inform the student of the Program’s recommendation and the confirmation of the recommendation by the Council. Review of the Program recommendation by the Council or its duly empowered Chair or Associate Chair, is limited to procedural matters and any extenuating circumstances only and does not entail assessing the academic decision itself. If the case is evidently straightforward, it may be approved by the Chair/Associate Chair and then must be submitted for approval and action to SGS (not GSEC), and also reported back to Council. Otherwise, the request will be placed on the agenda for decision by Council at its next meeting.

All such Council decisions are subject to appeal, under the general regulations of the SGS. It is the responsibility of the Chair or Associate Chair of Council to represent Council and explain Council’s decision to the SGS Academic Appeal Board, if/as required.

b. Withdrawal on General Academic Grounds: There are other academic circumstances that could lead to a recommendation that the student be required to withdraw. To cite several examples: in the judgment of the supervisor or a supervisory committee the student may be making unsatisfactory progress in research; the student may have failed the comprehensive examination; there may have been marginal performance in seminars; preliminary drafts of chapters of the thesis may reveal an unsatisfactory standard of scholarship; or in the judgment of the supervisor or a supervisory committee or other Graduate Program academic committee, the student's overall academic performance in coursework is not acceptable. For such cases the Program shall recommend withdrawal to Council and shall inform the student in writing that such a recommendation is being made and the grounds for this recommendation. The Program recommendation shall be taken to a meeting of Council. The Chair of Council shall inform the student that he or she may attend the meeting, with or without a representative,
and that he or she is entitled to present the case. If the student intends to be accompanied by legal counsel, he or she must provide at least 48 hours notice to the Chair of Council, who reserves the right to reschedule the discussion of the matter to another meeting of the Council, if notice is not given. If the student does not wish to attend the meeting of Council, the student can submit a written response to the recommendation, for circulation to the Council and for discussion by the Council at the meeting. If the student does not respond to an invitation to attend the meeting, or does not make a written submission, the process will continue without the student’s input.

Review of the Program recommendation by the Council is limited to procedural matters and any extenuating circumstances and does not entail an assessment of the academic decision itself.

If the Council approves the recommendation of the Program, the Chair of the Faculty Graduate Council shall report the case to the Dean of the School of Graduate Studies who shall notify the student in writing of the recommendation by the Council. This letter will also inform the student of the relevant appeal procedure under SGS General Regulation *Appeals Against Academic Decisions* and will inform the student of the academic services provided by the Coordinator of Dispute Resolution Mechanisms and the Society of Graduate and Professional Students’ Student Advisors.

All such Council decisions are subject to appeal, under the SGS General Regulation *Appeals Against Academic Decisions*. It is the responsibility of the Chair or Associate Chair of Council to represent Council and explain the decision to the SGS Academic Appeal Board, if/as required. The Graduate student representative to Council will not be permitted to attend that portion of a Council meeting at which student matters pertaining to Sections 2.2, 2.3 or 2.4 are discussed.

### 2.5 Thesis Examinations

#### 2.5.1 Membership and Convening of Thesis Examination Committee- Master’s students

The supervisor(s) shall nominate members for the Master’s Thesis Examination Committee and propose a date, time and place for the oral thesis examination. The supervisor(s) must obtain commitments from those nominated for the committee to serve as examiners and to attend the oral thesis examination as scheduled. In all cases, potential examiners should refer to the appropriate Senate document to determine if a conflict of interest exists. The applicable Program form is completed and signed by the supervisor(s) and the Graduate Coordinator (or Head/Director, if the Graduate Coordinator is a supervisor).

The Thesis Examination Committee for Master’s students in the programs administered by the FHSGC shall be composed of the following members:

- Chair of Committee
- Supervisor (s)
- Head/Director (or delegate)
- At least 2 examiners
NOTES

a) Normally, one of the Committee members shall be external to the candidate’s Program, and Programs should try to find a suitable faculty member external to the student’s home Program to serve on the Committee. However, all members of the Committee may be internal to the candidate’s Program, if approved by both the Program’s Graduate Coordinator and the Program Director/Head.

b) The Chair of the Master’s Thesis Examination Committee is not a voting member of the Committee.

c) The student and/or the supervisor(s) may request that the Chair be external to the student’s home program.

d) The Graduate Coordinator (or Head/Director, if the Graduate Coordinator is a supervisor) shall be responsible for approving the composition of the Examining Committee and signing the applicable departmental form.

2.5.2 Processing Master’s Oral Thesis Examinations

1. The completed signed Program form to schedule a Master’s Oral Thesis Examination shall be delivered to the designated Program person (e.g., the Graduate Assistant) no later than 10 working days prior to the scheduled date of the examination. The designated Program person shall indicate on the Program form whether the student has met the course requirements for graduation.

2. The candidate shall deliver a copy of the thesis to each member of the examining committee no later than 10 working days prior to the scheduled date of the examination.

3. The designated Program person shall confirm the date, time and place of the examination to all committee members and the candidate no later than 10 working days prior to the scheduled date of the examination, and shall send a copy of the Program form to the SGS Thesis Coordinator.

4. The examiners are not required to submit reports on the thesis prior to the oral thesis examination, unless they wish to submit a “negative report”; that is, if it is their opinion that the oral thesis examination should NOT proceed (see #5 below). If no negative report is submitted, it is presumed that the examiner agrees that the oral thesis examination should be held as scheduled and that they will attend the oral thesis examination.

5. If, on the basis of the thesis submitted for oral examination, any committee member feels the examination should NOT proceed, he or she must submit a report which lists the substantive reasons why the thesis should not proceed to examination, no later than 3 working days prior to the scheduled date of the examination. The “negative report” shall be submitted to a designated Program person who could be either the Chair of the committee, or the Graduate Coordinator in the candidate’s Program. If only one such negative report is submitted, the oral thesis examination shall proceed as scheduled.
6. If two or more negative reports are submitted, the candidate and the supervisor shall be consulted by the Chair of the Examining Committee or the Graduate Coordinator to see if they wish to proceed with the oral thesis examination. The SGS shall be notified whenever two or more examiners recommend that the oral thesis examination not proceed. The onus is on the candidate to make the decision to proceed or not. If the candidate agrees that the oral thesis examination be postponed, the Chair must convey to the candidate, through the supervisor, the nature of the revisions to the thesis that are advised, and the candidate has the right to present the revised thesis at a later date. At the subsequent submission of the thesis, the oral thesis examination must be held. The SGS shall be informed when an oral thesis examination has been postponed due to negative reports.

7. After the oral thesis examination, the Chair will ask for comments from the Examining Committee on the conduct of the examination (a standard form shall be provided) and will provide a report to the Head/Director of the Department/Program or Graduate Coordinator and to the SGS. The result of the defense, copyright forms, and reports, are forwarded by the Chair to the SGS Thesis Coordinator.

2.5.3. Attendance at the Master’s oral thesis examination

Master’s oral thesis examinations are either open, meaning that all members of the Queen’s community and other approved visitors may attend, or closed, meaning that only members of the Examining Committee and the student may be present. Students and supervisors must consult with the graduate department/program to determine what format is normally followed. Attendance at the Master’s oral thesis examination of people other than the members of the examining committee and the student, shall follow the general regulation of the SGS, Attendance at the oral thesis examination (http://www.queensu.ca/calendars/sgsr/Thesis.html), with the exception that requests for permission for “closed” Master’s examinations are decided upon by the graduate coordinator or department/program head, not by the Associate Dean of SGS.

2.5.4 Membership and Convening of Thesis Examination Committee- Doctoral students

Membership and Convening of Thesis Examination Committee for Doctoral students shall follow the General Regulations of the SGS.

2.6 Mini-Master’s

Students registered in a Master’s program at Queen's University, with first-class standing, and who show exceptional promise in their research may be considered for promotion to a doctoral program in the same Program, without completion of the Master’s degree. Promotion to a doctoral program requires the recommendation of the Program, the approval of Council and the approval of the SGS.
NOTE: Students admitted to a doctoral program by the mini-master’s route may revert to the master’s program within the same department/program in exceptional circumstances and with the approval of the supervisor(s), the department/program and the School of Graduate Studies. Promotion into a doctoral program without completing the Master's thesis is reserved for students who meet the following criteria:

7. Must have completed at least one term, full time, and have completed at least two graduate courses, or equivalent.
8. Must complete all course requirements for both the Master’s and Doctoral degree prior to graduation.
9. Should have an undergraduate honours degree with a minimum upper second class standing or equivalent.
10. Must have an overall first class average in graduate courses completed.
11. Must meet Program criteria for demonstrating promise and ability at research. This may take the form of oral or written presentation as well as letters of support from faculty familiar with the student’s progress.
12. Must apply to Council following one term of enrolment (4 months) and prior to the end of the fifth term of study (20 months). All requirements for completion of the mini-master’s must be satisfied by the end of the sixth term.

1. Procedure for Application and Approval:
The student will meet with the supervisor, the supervisory committee and the Graduate Coordinator or delegate to agree upon whether he or she should apply to the Ph.D. program without completing the Master's thesis. During this meeting the ramifications of the transfer to the doctoral program are to be clearly defined for the student.

The following documents are required for submission to the SGS:

• Updated transcript (internal transcript acceptable)
• A brief justification outlining the student’s qualifications for admission (to be completed by the Graduate Coordinator or delegate)
• Letter of support from the supervisor
• Outline of student’s current and proposed research.
• Completed application package for admittance to the doctoral program, including a decision sheet for acceptance into the Ph.D. program, “pending successful completion of the mini-master’s”.

The application will be forwarded to the Chair of Council c/o the School of Graduate Studies. When the mini-master’s candidate is in the same department/program as the Chair of Council, the application shall be forwarded to the Associate Chair of Council c/o the School of Graduate Studies. The Chair or Associate Chair will either approve the application, thereby accepting the student into the Ph.D. program pending successful completion of the mini-master’s examination, or, in the case where he/she queries the qualifications of the student, have the application forwarded to Council for discussion. Both the Graduate Coordinator (or delegate) in the student’s Program, and the supervisor must attend the Council meeting when the application is discussed.
No later than 40 working days after the approval to proceed via the mini-master’s route has been confirmed in writing by the SGS, the mini-master’s candidate will defend a written research report and proposal in an oral examination to an examining committee.

2. Procedure for Examination of the Research Proposal of the candidate for the Mini-Master’s:

The candidate must prepare a written report that normally should not exceed 10 pages in length, single spaced (excluding Figures, Tables and References), clearly delineating the background of the research project, the work done to date, and the proposal for development of the research into a doctoral thesis. This report will be submitted to an examining committee composed of the following members:

- Head/Director or Delegate as Chairperson
- Supervisor
- Two faculty members (cross-appointees or the supervisory committee may be used)

The Mini-Master’s Oral Examination Form will contain a signature line for the candidate indicating that the candidate has been informed of the make-up of the Committee and that there are no conflicts.

An oral examination will be held normally no later than 2 weeks (10 working days) after submission of the written report to the members of the examining committee. At the examination, the candidate will present a 15-20 minute talk on his/her research report and proposal. This talk will be followed by an oral examination. Questioning or comments of the examining committee will primarily relate to the background of the project, what the student has accomplished, and the basis for expanding the project. This should normally last no longer than 1.5 hours.

At the end of the examination, the candidate will be asked to leave the room while the examining committee members discuss the performance of the candidate. The examining committee will decide if the student will be recommended for promotion to the Ph.D. program or not. Two or more negative votes by the examining committee will result in failure of the mini-master’s examination. The decision of the examining committee shall be forwarded to the SGS.

Students who pass their mini-master’s examination will be allowed to transfer to the doctoral program in the following September, January or May. The Chair and/or Associate Chair of Council shall report any promotions to the Graduate Council at the next meeting. Students who do not pass the mini-masters examination will be allowed to complete the M.Sc. thesis, according to SGS regulations.
3. PROGRAM MATTERS CONSIDERED BY COUNCIL

3.1 Calendar Material and Course Offerings

Programs submit changes to their Calendar material (fields of research, degree programs information) and course offerings (new courses, course deletions, course number or title changes, course description text changes) to Council for approval (Guidelines and forms pertaining to changes in the SGS Calendar are available on the SGS web site, and as Appendices 1-4). Other changes to calendar material are submitted directly to the SGS. Calendar changes approved by Council are submitted to GSEC for ratification. Changes for an upcoming academic year should be approved no later than the Council meeting preceding the March meeting of GSEC. Proposals for new or revised courses approved by Council are submitted to the Office of the Dean/Vice Dean of the School of Medicine, Nursing or Rehabilitation Therapy, as appropriate, for review and consideration of resource issues, prior to submission to GSEC for ratification.

3.2 New and Modified Programs

The processes for approval of new graduate programs, or major or minor modifications to an existing graduate program, are outlined in detail in the Queen’s University Quality Assurance Processes (QUQAPs) document approved by Senate in November 2010, which can be found here:

The templates to be used for the processes can be accessed at:
http://www.queensu.ca/provost/quality-assurance/templates

After submission of full Proposal Briefs for new graduate programs to Council for approval, and at the discretion of Council, an ad hoc subcommittee of Council may be established to review the Proposal Brief and prepare a report for Council on the academic merits of the proposed program. Proposals approved by Council for new graduate programs, or for major or minor modifications to an existing program, are submitted to GSEC for approval and, as appropriate, to the Office of the Dean/Vice Dean of the School of Medicine, Nursing or Rehabilitation Therapy for review and consideration of resource issues.

4. COMMITTEES AND COMMITTEE LINKS

4.1 Graduate Studies Executive Council
The Faculty Associate Dean and the Chair of FHSGC serve on GSEC.

4.2 Fellowship

The Chair of Council serves on the SGS Fellowship Committee. In addition, one of the awards subcommittee members shall be the elected member to the SGS Fellowship Committee, normally for a three-year term.
In order to have representatives involved in the adjudication of all annual major external and internal graduate award competitions the following fellowship subcommittees are established:

- The Vanier Canada Graduate Scholarship competition committee
- The CIHR Canada Graduate Scholarship – Master’s award competition committee
- The Governor General’s Gold Medals/Internal fellowships competition committee.
- The NSERC Doctoral Award and other Awards competition committee

One person shall also participate in the adjudication of the annual Graduate Dean’s Doctoral Field Travel Award competition.

Other awards may be adjudicated as requested by the SGS Fellowship Committee.

A schedule of the annual competitions, the deadlines, the schedule for review activities and for final decisions, is available from the School of Graduate Studies.

Departments/Programs shall nominate graduate faculty members to be assigned to one of the four Faculty of Health Sciences Graduate Council Awards subcommittees. Nomination distribution shall be as follows:

Biomedical and Molecular Sciences: 3
Neuroscience: 2
Nursing: 1
Pathology and Molecular Medicine: 1
Public Health Sciences: 2
Pathology and Molecular Medicine: 1
Rehabilitation Science: 1
Translational Medicine: 1

The final composition of the Subcommittee membership shall be presented to Council for review and approval.

The Chair and Associate Chair of Council shall coordinate the activities of all Fellowship subcommittees.

4.3 Academic Appeal Board
Faculty members serving on the Academic Appeal Board (AAB) shall be nominated by Faculty Graduate Councils or Committees. Student representatives on the AAB shall nominated by Faculty Graduate Councils or Committees or by the Society for Graduate and Professional Students.

Faculty members on the AAB will be elected/appointed for two-year terms, and student members in the AAB will be elected/appointed for one-year terms. Both terms normally commence as of July 1 and are renewable.

4.4 Ad Hoc
Ad Hoc committees are established as necessary. The constitution and terms of reference of such committees are approved by Council.
Note: At the last meeting of Council before the summer session, the Chair will ask Council to authorize the Chair and Associate Chair to conduct Council business over the summer months.
APPENDIX 1
School of Graduate Studies

NEW GRADUATE COURSE FOR FACULTY OF HEALTH SCIENCES GRADUATE COUNCIL APPROVAL

GRADUATE PROGRAM:
For EACH new course, please complete the entire form.
Insert the proposed Calendar description of the new course in the box below, and delete the example provided.

EXAMPLE

<table>
<thead>
<tr>
<th>(1a)</th>
<th>(2)</th>
<th>(1b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON-853*/3.0</td>
<td>Applied Econometrics</td>
<td></td>
</tr>
</tbody>
</table>

This course is an introduction to graduate level time series econometrics. The goal of the course is to provide a foundation in core time series methods that will permit students to undertake serious empirical work or pursue more advanced theoretical modeling. (3)

PREREQUISITE: ECON-852* or equivalent. (4)

EXCLUSION: ECON-953* (5)

1. Course number (1a) and title (1b): The number chosen for this course should not have been used in the past 5 years. The asterisk * is used to denote a term-length graduate course. In order to fit on the student transcript, the course title must be no longer than 30 characters, including spaces.

2. Weight (e.g. 1.5 credit units, 3.0 credit units, 6.0 credit units, etc.): The course weight must be consistent with the course content.

3. Calendar description: This is the description that will appear in the School of Graduate Studies Calendar. The maximum length for a Calendar description is 350 characters (3a). Remember to include any cost recovery fees that will be borne by the student (3b). If none, omit.

4. Prerequisites: Please list prerequisites; if none, omit.

5. Exclusions: List courses with sufficient content overlap, not only in your plan, but also in other plans. It is the responsibility of the department creating a new course to contact other departments that may offer courses with similar content in order to make this assessment. If none, omit.

Provide the following detailed information for each new course:
6. Expanded Course Description: Attach a detailed course description, expanding on course content. Include potential readings, texts, instructional methods (i.e. lectures, seminars, etc.)
and student evaluation. Explain how this course will fit into the Program’s overall program requirements. Is this course intended as a requirement, an option or an elective?

7. Impact (if any) on other programs: If the new course will have any impact on programs offered by other Programs, please indicate which programs may be affected by this new course, i.e., the course could be included in another concentration or the course content might overlap with courses offered by another program. Please indicate which Graduate Program(s) have been contacted.

8. Schedule: Will this course be offered regularly? Annually? In alternate years? When will it first be offered?

9. Staffing: Provide faculty/staff information for the coming year and foreseeable future.

10. Resources: Provide details of specific resource requirements in terms of rooms, equipment, computers, etc.

11. Enrolment: Indicate the anticipated enrolment in this course.

12. Grading basis: Indicate if this course is graded (ie assigned a grade) or Pass/Fail.

13. Course component(s): What component(s) make up this course (enter Y for any that apply):

<table>
<thead>
<tr>
<th>Lecture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seminar</td>
</tr>
<tr>
<td>Laboratories</td>
</tr>
<tr>
<td>Tutorials</td>
</tr>
</tbody>
</table>

14. Program Approval: Provide the date that this course was approved at the Program level, if applicable: __________________________

15. Submission Contact: Name: __________________________
   Internal Phone #: __________________________
   Email: __________________________

16: EMAIL the completed form and any attachments to fhsgc.admin@queensu.ca.

FOR OFFICE USE ONLY:

Date of approval by FHSGC: __________________________
Date of approval at GSEC: __________________________
Appendix 2

School of Graduate Studies REVISING AN EXISTING GRADUATE COURSE, FOR FACULTY OF HEALTH SCIENCES GRADUATE COUNCIL APPROVAL

GRADUATE PROGRAM:

For EACH course revision, please complete the entire form.

Insert the EXISTING Calendar description in the box below, and delete the example provided.

| MGMT-963* Mathematical Programming This is a seminar designed to permit students to become familiar with the more advanced topics in mathematical programming. Topics covered will include: Kuhn-Tucker theory, non-linear programming, network theory, integer programming, and current topics from the literature. |

Insert the REVISED Calendar description in the box below, and delete the example provided.

| MGMT-963* Mathematical Programming This is a seminar designed to permit students to become familiar with the more advanced topics in mathematical programming. Topics covered will include: optimization theory, linear and nonlinear programming, network theory, integer programming, and current research topics from the literature. |

NOTE: ANY change to the current course NUMBER and/or course WEIGHT, are to be treated as course additions and/or deletions, not revisions.

Revisions made to any of the information noted above must be submitted to the FHSGC for approval. Detail your proposed changes under the following headings and provide a rationale for the changes.

1. Title change: Provide the new title along with the reason for this change (eg. title does not reflect content, etc.)

2. Calendar description change: Provide the new description along with the reason for this change. The maximum length for a Calendar description is 350 characters. Besides revising the current description itself, other descriptors to change might include a change in format (labs replaced by in class demonstrations; the addition of tutorials; lectures changed to seminars, etc.), or the addition or deletion of an ancillary fee.

3. Prerequisite change: Provide details and reason for the change(s). If this change affects courses listed in other departments or programs, indicate that the other department(s) or program(s) have been notified. If none, omit.

4. Exclusion change: Provide details and reason for the change(s). If this change affects courses listed in other departments or programs, indicate that the other department(s) or program(s) have been notified. If none, omit.
5. Impact (if any) on other programs: If the revised course will have any impact on programs offered by other Programs, please indicate which programs may be affected by this revised course, i.e., the course could be included in another concentration or the course content might overlap with courses offered by another program. Please indicate which Graduate Program(s) have been contacted.

6. Resources: Provide details of changes in specific resource requirements in terms of staffing, rooms, equipment, computers, etc.

7. Program Approval: Provide the date that this course was approved at the program level, if applicable: __________________________

8. Submission Contact: 
   Name: __________________________
   Internal Phone #: ________________
   Email: __________________________

9. EMAIL the completed form and any attachments to fhsgc.admin@queensu.ca.

FOR OFFICE USE ONLY:

Date of approval by FHSGC: ________________________________

Date of approval at GSEC: ________________________________
Appendix 3

School of Graduate Studies COURSE DELETION FOR FACULTY OF HEALTH SCIENCES GRADUATE COUNCIL APPROVAL

GRADUATE PROGRAM:

**COURSE CODE/NUMBER**: ** For EACH course deletion, please complete the section above AND items 1 through 3.

1. **Course number and title**: Note that this number may not be reused for five years.

2. **Reason for deletion**: Provide a detailed rationale for this deletion, eg. staffing, resources, archaism, replacement by new course(s), etc.

3. **Impact**: How will this deletion affect the Program? Will this deletion have any impact on programs offered by other Graduate Programs? If so, please indicate which Program(s) have been contacted and include copies of relevant correspondence.

Submission Contact: Name: ____________________________
Internal Phone #: ____________________________
Email: ____________________________

Signature of Department/Program Head: ____________________________
Signature of Graduate Coordinator: ____________________________

EMAIL the completed form and any attachments to fhsgc.admin@queensu.ca.
Appendix 4  

Graduate Degree Program Revision  
Faculty of Health Sciences /School of Graduate Studies  

Curriculum Submission  

**PROGRAM**: Submission Contact:  
Name: ____________________________  
Internal Phone #: __________________  
Email: ____________________________  
Date: ____________________________  

Signature of Department/Program Head: ________________________________  
Signature of Graduate Coordinator: _________________________________  

Program revisions should be submitted whenever a course addition, course deletion or course revision affects the graduate degree program requirements OR whenever a minor change to the current degree program requirements is proposed.  

1. **Description of Change**: Indicate the degree program and/or Calendar section to be revised.  

2. **Rationale**: Provide a detailed justification explaining the proposed change(s).  

3. **Calendar Copy**: This is the text that will appear in the School of Graduate Studies Calendar. Provide the revised text with revisions in bold.  

4. **Timing**: Please provide dates when these changes will come into effect. Describe how you will ensure that students who began their programs before this change will be allowed to continue in their programs (grandparenting arrangements).  

5. **Resources**: If these changes will affect specific resource requirements in terms of rooms, equipment, computers, TA’s, etc., please provide details. Will any new funds be required for these changes? If so, how will these costs be covered? Please include any relevant correspondence.  

EMAIL the completed form and any attachments to fhsgc.admin@queensu.ca.