

# Medical Research Graduate Program (MRGP)

## STUDENT HANDBOOK

<https://medicine.dal.ca/research-dal-med/capacity/mrgp.html>



## Contents

### Contents

1	Welcome to Medical Research Graduate Program.....	4
2	Introduction .....	4
3	Guidelines on the Supervision of Graduate Students .....	5
3.1	Responsibilities of Supervisors.....	5
3.2	Responsibilities of Students .....	5
3.3	Rights of Supervisors.....	6
3.4	Rights of Students .....	7
3.5	Responsibilities of the Medical Research Department.....	7
4	Graduate Studies Committee (GSC).....	8
4.1	Research Supervisor.....	8
4.2	Supervisory Committees .....	8
4.3	Committees for MSc Candidates .....	9
4.4	Supervisory Committee for Ph.D. Candidates .....	9
4.5	Duties of Supervisory Committees .....	9
4.6	Criteria for Student Evaluation .....	10
4.7	Grievance Procedures .....	10
5	Work Outside of Graduate Studies .....	11
6	Class Requirements .....	11
7	Failure in a Class .....	11
8	Grading Scale .....	11
9	Progress Review .....	12
10	MSC/PhD Programs.....	13
10.1	MSc.....	13
10.2	PhD.....	13
i.	Ph.D. Research Proposal .....	13
ii.	Comprehensive Examination for PhD (Guidelines).....	14
11	Transfer from MSc to PhD .....	16

12	Seminars.....	17
13	Journal Club Participation.....	17
14	Residency Period .....	17
15	Thesis Components and Defence.....	18
15.1	Title of Thesis .....	18
15.2	Thesis Submission .....	18
15.3	Thesis Defence .....	18
15.4	Thesis Defence Examination Committee .....	18
16	Funding .....	18
17	Other Program Policies .....	19
18	More Information.....	19

## 1 Welcome to Medical Research Graduate Program

---

The Medical Research program welcomes you and wishes you an enjoyable and rewarding graduate experience. We hope that your learnings here will provide you with a wealth of knowledge and training which will serve you well throughout your career. We hope also that you will be able to establish friendships with fellow graduate students, staff, and faculty and that these friendships may enhance the enjoyment and success of your research activities.

The Program offers training leading to the degree of MSc or PhD. The aims of these graduate programs are to bridge the gap between clinical and basic medical research, and to offer training in clinical research, which is not otherwise formally offered at this University.

Browse through the following pages to acquaint yourself with our graduate program. We hope it will be a useful reference guide for you, your research supervisor, and members of your supervisory committee.

## 2 Introduction

---

The Faculty of Graduate Studies sets the rules for graduate students to follow at Dalhousie. These rules are found in the [Faculty of Graduate Studies Calendar](#). In addition to the Calendar, the information contained in this booklet is designed to help students understand the rules, regulations and procedures pertaining to graduate studies in the Medical Research program.

The Dalhousie University Medical Research Graduate Program is offered jointly through the Dalhousie School of Medicine and the Faculty of Graduate Studies. The goal of the program is to provide clinicians with structured and rigorous research training over two to five years that will equip them with the knowledge, skills, and experience to effectively incorporate research into their careers. **The program is open to residents enrolled in a Royal College of Physicians and Surgeons of Canada or Canadian College of Family Physicians Program, or to physicians, dentists, or veterinarians eligible to practice in Canada.** Resident physicians at Dalhousie University may also take part in the program through enrollment in the [Clinician Investigator Program](#).

This booklet is intended to provide graduate students and faculty with a description of procedures and degree requirements for graduate study in the Medical Research program at Dalhousie University. Unusual situations may require some individual modifications to be made through discussions with supervisors and supervisory committees. Any modifications will be subject to approval by the MRGP Committee for the Medical Research program.

### **3 Guidelines on the Supervision of Graduate Students**

---

#### **3.1 Responsibilities of Supervisors**

---

When a faculty member agrees to supervise you, they assume several responsibilities:

- i. to provide reasonable access to students and to be available for consultation at relatively short notice
- ii. to help decide upon a relevant and interesting research project
- iii. to tell students approximately how long it will be before written work, such as drafts of chapters, can be returned with comments
- iv. to be thorough in their examination of thesis chapters, supplying, where appropriate, detailed comments on such matters as literary form, structure, use of evidence, relation of the thesis to published work on the subject, footnoting, and bibliographical techniques, and making constructive suggestions for rewriting and improving the draft
- v. to indicate clearly when a draft is in a satisfactory final form or, if it is clear to the supervisor that the thesis cannot be successfully completed, to advise the student accordingly
- vi. to know the departmental and University regulations and standards to which the writer of a thesis is required to conform, and to make sure that the student is aware of them
- vii. to continue supervision when on leave, with arrangements being made for members of the supervisory committee to assist the student for the leave period
- viii. to advise and help the student approach other faculty members for assistance with specific problems or even to request the reading of a chapter or section of the thesis

#### **3.2 Responsibilities of Students**

---

When undertaking the writing of a thesis, students must assume several responsibilities:

- i. to choose a topic, in consultation with their supervisor, and to produce a thesis that is essentially their own work

- ii. to produce a thesis which meets the standards of scholarship required by the University and the department, including demonstration of their capacity for independent scholarship and research in their field
- iii. to acknowledge direct assistance or borrowed material from other scholars or researchers
- iv. to realize that the supervisor has undergraduate or other duties which may at times delay the student's access to the supervisor at short notice
- v. to give serious and considered attention to advice and direction from the supervisor
- vi. to submit their work to the judgment of the department and to abide by its decision when any rights of appeal, if exercised, have been exhausted
- vii. to know the departmental and University regulations and standards to which the writer of a thesis is required to conform

**NB:** It should be noted that the thesis represents your work and you are ultimately responsible to its production. This includes writing, typing, artwork, photocopying, and binding costs; some costs may be defrayed by your supervisor at their discretion.

### 3.3 Rights of Supervisors

---

Your supervisor has the following rights:

- i. to expect students to give serious and considered attention to their advice concerning what they regard as essential changes in the thesis
- ii. to terminate supervision and advise the student to find another supervisor if the student does not heed advice and ignores recommendations for changes in the thesis, or if the student is not putting forth a reasonable effort
- iii. to have their thesis supervision properly credited by the department as an intrinsic part of their workload so that, in the assignment of duties, they are not overburdened to the point of having their effectiveness impaired as supervisors
- iv. to have the thesis-writer acknowledge, by footnoting, all portions of the supervisor's own research over which the supervisor wants to retain future rights of authorship
- v. to have thesis-writers give permission for the results of their research to be used for the benefit of a larger project. This applies when they are working as assistants with their supervisor on research that is part of such a project. This is always with the understanding that students will refrain scholarly credit for their own work and be given acknowledgement of their contribution to the larger project

### **3.4 Rights of Students**

---

Students have the following rights:

- i. to have a clear understanding of what is expected in thesis writing (expected length, acceptable methodology, validity of topic, notification of progress)
- ii. to expect help from their supervisor in establishing a feasible topic and in solving problems and assessing progress as the thesis is being written
- iii. to receive a fair assessment of the completed thesis and explanations of negative criticism
- iv. to be allowed to have a new supervisor when they can offer convincing reasons to the department for the change and the change can be reasonably accommodated by the department
- v. to be protected from exploitation by their supervisor or other faculty members if the latter should:
  - X intrude upon the student's right of authorship or fail to give the student authorship credit for team research (where applicable, the department's protocols on authorship should be provided to students before they embark on research), OR
  - X divert the student's efforts from the timely completion of the thesis
- vi. to submit a thesis even if the supervisor is not satisfied, although such action should be taken only in extreme cases and after full consultation with the department

### **3.5 Responsibilities of the Medical Research Department**

---

Departments have certain responsibilities in supporting and maintaining their graduate programs:

- i. to provide necessary facilities and supervision for each student admitted, and not to accept more candidates than can be offered effective supervision to uphold a high academic standard for thesis
- ii. to provide adequate supervision at all times, so that, when a supervisor leaves the University for another permanent position, substitute arrangements are made as soon as possible
- iii. to allow students to change supervisors if their research interests shift or develop in a new direction and a change of supervisor will not deprive them of financial support and if the change can be reasonably accommodated by the department

- iv. to provide procedures which assist and encourage students to complete the thesis, such as early review and approval of topic and methodology, guidelines on access and appeals, oversight of the students' schedule, and a clearly stated system of thesis review and evaluation
- v. to encourage students to give papers as they proceed, so that they can test their ideas on a wider audience than the supervisory committee
- vi. to ensure that the graduate coordinator acts as a general overseer of students' progress
- vii. to instruct all students (or to see that they attend Faculty-level workshops) on research ethics
- viii. to explain to students the University's policies on intellectual property rights

#### **4 Graduate Studies Committee (GSC)**

---

The GSC is an appointed committee of the Program with the following primary responsibilities:

- i. to recommend to the FGS which students be admitted to the Medical Research program
- ii. to recommend sources of external funding that the students can apply for support
- iii. to administer placement and qualifying examinations as required
- iv. to monitor progress of graduate students. The committee will ensure that each graduate student fulfils the requirements of the Faculty of Graduate Studies and of the Medical Research Program. To this end, the Graduate Studies Administrator will maintain records of all graduate students

##### **4.1 Research Supervisor**

---

Normally, graduate students will have made mutually acceptable arrangements with a faculty member for the supervision of their research before registering for their program at Dalhousie. As soon as possible after registration, new students, with their supervisor's advice, will establish a supervisory committee.

##### **4.2 Supervisory Committees**

---



The course of study of every graduate student in the Medical Research program is approved by the student's supervisory committee. Supervisory Committees must be appointed within the first three months after registration in the program. The committee members are selected by the supervisor, with student input, and approved by the GSC. If changes are required, the student should consult with the supervisor and the Graduate Coordinator. This committee also forms most of the examining committee which recommends to the Program (and hence to the Faculty) when a student has satisfactorily fulfilled all requirements for the MSc or PhD degree.

### **4.3 Committees for MSc Candidates**

---

Consists of:

- i. student's research supervisor(s)
- ii. two other faculty members, at least one of whom will be a Medical Research and all must be FGS members
- iii. with co-supervisors will have a 4-member committee

### **4.4 Supervisory Committee for Ph.D. Candidates**

---

Consists of:

- i. the student's research supervisor(s)
- ii. three other members, at least one of whom will be a medical researcher. All must be FGS members
- iii. with a co-supervisor, there would be a minimum of 5 members on the supervisory committee
- iv. an external examiner must be appointed at least three months before the thesis is to be submitted. The external examiner is chosen by the student's supervisory committee. The supervisor then informs the Graduate Coordinator for the MRGP who then advises FGS. FGS approves the selection of the external examiner based on their criteria for this role and extends the invitation to the external examiner.

### **4.5 Duties of Supervisory Committees**

---

- i. to meet with the student initially to discuss a program of study in light of the student's background; to inform the GSC in writing of those classes that the student expects to take in order to satisfy class requirements or to correct background deficiencies
- ii. to meet with the student at least twice a year (usually in May and November) to discuss the student's progress and recommend strategies to address any problems in the research program
- iii. to report on the student's progress to the GSC at least twice a year (following the committee meeting with the student)
- iv. along with the supervisor, assess the body of work completed by the student and recommend on the timing of thesis submission
- v. form the nucleus of the examining committee

#### **4.6 Criteria for Student Evaluation**

---

The criteria on which a student's work is judged are:

- i. evidence of research ability shown by progress on a research project
- ii. evidence of academic ability in the achievement of satisfactory grades in graduate classes and active participation in at least one divisional seminar program, and
- iii. satisfactory performance in teaching and other assigned duties in the discipline

#### **4.7 Grievance Procedures**

---

A student with a grievance should proceed in the following sequence:

1. Supervisor and/or Supervisory Committee
2. Graduate Coordinator
3. Graduate Studies Committee
4. Faculty of Graduate Studies

If the grievance cannot be resolved by the Supervisor or the Graduate Coordinator, the student must then submit a written statement to the Graduate Studies Committee, who will then meet with the student regarding the grievance. The Graduate Coordinator will chair the Graduate Studies Committee when reviewing a grievance. The Graduate Coordinator would be a non-voting member at such a meeting.

If a mutually satisfactory resolution cannot be reached, the Faculty of Graduate Studies may strike an Appeals/Grievance Committee to adjudicate. Appeals/Grievance beyond this level follow the appeals process open to all registered students in the University.

## **5 Work Outside of Graduate Studies**

---

During their Graduate Studies, residents will be permitted to continue participation in their Clinical Department Grand Rounds. In addition to Grand Rounds, the resident may also be permitted to participate in clinical work up to a maximum of 16h per week. All clinical commitments must be approved by the GSC for the Medical Research program and must not interfere with the research program.

## **6 Class Requirements**

---

At the first meeting of the Supervisory Committee, relevant course work for the student will be identified by the Committee in agreement with the student and the supervisor. There will be a minimum requirement of one-half credit research methodology course (i.e. statistics); however, the Committee may require that additional courses be taken to provide the knowledge base required for the thesis research. In addition, regular contributions to, and attendance at, a Journal Club and a seminar series, will be a requirement to ensure a firm grounding in experimental methods.

In addition to these general requirements, all Ph.D. candidates are required to pass a comprehensive examination.

## **7 Failure in a Class**

---

It is a Faculty of Graduate Studies regulation that a student who fails ANY class (a grade less than B- in any mandatory core class) is automatically dropped from their program of study within the Faculty. However, if a failure is in no more than one half-class and if a grade of C- or better has been obtained, the Graduate Studies Committee will consider all aspects of any individual case and may, at its discretion, recommend to the Dean of the Faculty that the student be readmitted.

## **8 Grading Scale**

---

<b>Grade</b>	<b>Score</b>	<b>GPA</b>
--------------	--------------	------------

---

A+	90-100	4.3
A	85-89	4.0
A-	80-84	3.7
B+	77-79	3.3
B	73-76	3.0
B-	70-72	2.7
C+	67-69	2.3
C	63-66	2.0
C-	60-62	1.7
D	50-59	1.0
F	0-49	0

## 9 Progress Review

---

**Two** supervisory committee meetings are required **per year**. One week before this meeting, the student should submit a Supervisory Committee Meeting Report to each member of the supervisory committee and to the Program Manager outlining their research progress and proposals. At the time of the meeting, the student will discuss progress and entertain comments and questions from supervisory committee members.

A written summary of the proceedings of the committee meetings reporting the resulting decisions or suggestions made by the supervisory committee should be composed by the student, circulated to committee members for approval and signature, and submitted to the Program Manager for filing in the student's file.

Students are also expected to attend two progress meetings per year with the Program Director, in January/February (Bi-annual) and July/August (Annual).

**Forms for the above reports can be obtained on DalMedix**  
([https://www.med.dal.ca/librarylink\\_m.cfm?ID=82](https://www.med.dal.ca/librarylink_m.cfm?ID=82)) under CIP / MRGP folder.

In addition to submitting the committee reports from their semi-annual supervisory committee meetings, each student will also be required to complete a FGS Progress Report found on GSIS: <https://www.dal.ca/faculty/gradstudies/current-students.html>.

## 10 MSC/PhD Programs

---

Two-degree programs are offered; however, all students will initially enroll in the MSc Program. Exceptions will be made for those Residents who already hold a MSc degree in a relevant discipline. Decisions on which MSc degrees are acceptable for admission to Medical Research PhD program are left up to the discretion of the Graduate Studies Committee for Medical Research. If, after one year, the student wishes to transfer to the PhD Program, and, if his/her Supervisory Committee recommends such a transfer, a recommendation will be sent to the Medical Research Program Committee and, from it, to the Faculty of Graduate Studies for consideration and approval. A detailed explanation of each Program is now given:

### 10.1 MSc

---

This program will normally be for two years, including course work and research. All students are required to complete a one half-credit research methods course (with a minimum grade as required by the Faculty of Graduate Studies). A thesis on the research performed would be submitted and defended as outlined under the Guidelines of the Faculty of Graduate Studies. An external examiner will be appointed for the thesis examination to ensure rigorous standards. The external examiner will be external to the discipline the student is registered in.

### 10.2 PhD

---

The time taken by the student to complete the Degree will be dependent on the progress and success of the thesis work as judged by the Supervisory Committee. The PhD program is expected to be completed within 3 years; a maximum of 6 years would be allowed. Course requirements would apply as in the M.Sc. Program, but, in addition, a thesis proposal would be prepared by the student within twelve months of initiation of the Program and presented to the Supervisory Committee. In addition, within 18 months of initiation of the Program, the student must complete a Comprehensive Examination, which will have an oral and a written component. There will be a thesis required at the completion of research as stipulated by the Faculty of Graduate Studies. In addition, publications, at least in the state of submission, will be expected.

#### i. Ph.D. Research Proposal

---

The writing of a research proposal that will form the basis of a student's directed research is an important step towards focusing one's efforts and resources on a particular problem and devising appropriate strategies for its solution. The skills of successful "grantsmanship" in the writing of a research proposal are important in establishing one's scientific credibility and in attracting interest (i.e. funding) in one's work. In the course of graduate student training, demonstration of these skills is also an important early indicator of academic development. PhD graduate students are required to compose a research proposal and to present it to their supervisory committee. The proposal should outline the project the student proposes to do

and it should follow the style used in CIHR grant applications but be no more than five single-spaced pages. Students are encouraged to seek advice from their supervisors, supervisory committee members (and others) as to the preparation of their research proposal.

**The research proposal is to be submitted to members of the supervisory committee, ideally by the 10<sup>th</sup> month and, in any case, no longer than the 14<sup>th</sup> month after initial registration.** The supervisory committee will meet with the student, ideally by the 12<sup>th</sup> month and no later than the 16<sup>th</sup> month after initial registration. This meeting will serve to review and to question the student on the research proposal. An important function of this meeting is to decide on the feasibility of the proposal and the student's abilities to carry out the proposed work. Acceptability will be judged by the student's supervisory committee at that meeting.

## ii. **Comprehensive Examination for PhD (Guidelines)**

---

**Introduction:** The Medical Research Graduate Program requires that PhD students demonstrate a broad clinical and basic medical knowledge relevant to their subject of study beyond a narrow in-depth knowledge of a specific topic in an isolated field. Hence, all Ph.D. candidates are required to pass a comprehensive examination comprised of both oral and written component.

**Purpose:** The purpose of the Comprehensive Examination is to gauge the student's ability to prepare, evaluate and communicate scientific concepts and to discuss these in a competent fashion. This oral examination is designed to evaluate the depth and breadth of the PhD student's knowledge in the proposed area of medical research and their ability to critically evaluate the literature and effectively integrate related areas of knowledge. The student should have a sufficient understanding of the relevant literature and acquired knowledge in the field of study, with an appropriate ability to integrate related/peripheral knowledge, such that a thesis of appropriately high scholarship is likely.

**When:** According to Faculty of Graduate Studies (FGS) regulations, under normal circumstances this exam should be completed by the end of the second year of full-time study, or at the beginning of the third year. Additionally, the comprehensive exam should be held only after completion of all required class work and prior to the student's thesis proposal.

**Process:** The process for holding a comprehensive exam is as follows:

- **Examination Committee:** The student's supervisory committee establishes Examination Committee membership which must include the following:
  - Chair: Program Director or designate
  - Expert(s) in research area: External examiner(s)
  - Supervisor(s) /Thesis Supervisor(s)
  - Student thesis committee member

The external examiner(s) is selected to provide breadth of expertise. At least one examiner will be drawn from the student's supervisory committee and at least two of the examiners will hold a primary or joint appointment in the department in which the student is conducting their research. The Chair is the Program Director or designate. Members of the Examination

Committee must adhere to the conditions of FGS membership. The external examiner (s) must have some form of FGS membership status (Regular member, Adjunct member, Retired faculty member).

- **Date:** The schedule for the student's comprehensive exam is set by at least three months prior to the end of the 2nd year in the program
- The student sets a date/time that is acceptable to their supervisor, examination committee, and the program director or designate.
- The student must identify to the chair of the Examination Committee (normally the Program Director), the members of the Examination Committee
- The Program Manager, will assist in booking a meeting room (or virtual link) where the examination will take place and send calendar invites to the attendees
- **Written Component:** The student and the supervisor(s) decide upon and share three topics with the Examination Committee. It is possible to submit questions in the form of a research proposal. The Examination committee select one topic out of three topics proposed by the student and supervisor(s) to serve as the written component of the Comprehensive Exam. The student is to be provided with the Examination Committee's selected topic a minimum of three months prior to the oral exam date. The student will prepare a literature review on the chosen topic as their written component and circulate the completed review to all examiners two weeks prior to the oral exam
- **Oral Component:** An examination may last between 2-3 hours and is held at least two weeks after submission of the written component. The Comprehensive Examination is similar to a thesis defence. It begins with a brief (20-minute) oral presentation of the literature review by the student. The committee, including supervisor(s) and chair, then questions the student on the written document provided. The written paper may serve as the primary basis for oral questions, but knowledge of related areas will also be tested. Some knowledge base in the areas of the other two questions initially proposed must be demonstrated
- **Literature Review paper:** The student prepares a review of the literature based on the exam topic provided by the Examination Committee. The literature review must adhere to the following guidelines: double-spaced, 12-point Times [or equivalent] font, 1.0-inch margins, 15 pages maximum excluding references, figures, schemes, and tables, describing the current knowledge on the assigned topic. The Examination Committee or Supervisory Committee members are NOT expected to review drafts of the literature paper prior to its formal submissions. The literature review must be supplied to the Examination Committee at least two weeks before the examination. If a review does not meet these guidelines or is deemed of insufficient quality by the Examination Committee to proceed with the oral examination, it will be returned to the student, which may lead to a delay in the examination
- **Evaluation:** Committee members, including the student's supervisor(s), discuss the exam outcome *in camera* and reach a **PASS** or **FAIL** consensus, with an overall evaluation and constructive comments provided by the chairperson on the signature form. A **FAIL** may be accompanied by a recommendation for re-examination, including a timeframe for re-submission of written document and re-examination. A re-examination committee retains the same chairperson but differs by at least one member (preferably two) from the original Examination Committee. Evaluation documents include assessment rubric and an exam report, to be completed by each

of the examiners, and submitted to the Graduate Coordinator of the Medical Research Graduate Program, within two weeks of the examination.

- ***Assessment of Comprehensive Examination for PhD:*** Students must perform satisfactorily in all components of the comprehensive exam as judged by consensus of examiners. If a consensus is not reached, the Chair of the Examining Committee must make a recommendation to the Medical Research Graduate Program Committee as to whether the student is eligible to retake the exam. If a retake is granted, it must take place no sooner than two months and no later than six months after the first Examination
- The Program Director is to send the relevant completed exam forms to the Faculty of Graduate Studies at [graduate.studies@dal.ca](mailto:graduate.studies@dal.ca) Transfer from MSc to PhD

## 11 Transfer from MSc to PhD

---

Students who wish to transfer from the MSc program to the PhD program are required to prepare a PhD research proposal (details below). Ideally, students should apply to transfer to the PhD program by the 12<sup>th</sup> month and generally no later than the 16<sup>th</sup> month after initial registration.

Due to deadlines set by the Registrar, students should note that transfers only become effective on May 1, September 1 or January 1. Students should also note that transfer from the MSc to PhD program after the first full year will alter their fee status (from thesis-only fees back to full fees). Students should also check with the Faculty of Graduate Studies Office regarding the fee payment schedule for their program.

1. Students intending to transfer to the PhD program usually make their intentions known to their supervisory committee during one of the two scheduled committee meetings that occur each year during the student's program
2. The supervisory committee assesses the student's progress and provides their written recommendation on the student's suitability for the PhD program. This recommendation will be submitted to the MRGP Committee for approval
3. Following the PhD research proposal and transfer meeting the committee (or student) must submit a signed program update form and an advance placement form (if any) to the Program Manager
4. The Program Manager submits the Program Update form and advance placement form to FGS for final approval at [graduate.studies@dal.ca](mailto:graduate.studies@dal.ca)
5. Once approved, the student and supervisory committee should plan for a comprehensive exam by the end of the second year of full-time study, or at the beginning of the third year at the latest
6. The student and supervisory committee should also set tentative dates for submission and defence of the PhD proposal
7. The recruitment of an additional committee member to satisfy the committee requirements for a PhD student (i.e. supervisor, co-supervisor [if required] and three additional faculty members) should occur prior to submission of the research proposal.



**NOTE:** The student should ensure that this entire process is communicated to the Graduate Coordinator and the Program Manager.

## **12 Seminars**

---

All graduate students must present at least one seminar per year outlining their research project. Generally, new students will be scheduled in the spring semester while more senior students will present in the fall semester.

The function of these seminars is to involve the entire discipline in a student's research project and to permit the student to gain experience in one important format of oral communication. Prior rehearsal of the seminar with the supervisor or supervisory committee (strongly recommended), post-seminar debriefing (with seminar coordinator and supervisory committee), and use of standard evaluation forms distributed to a few selected members of the audience (faculty and students) will help the student to benefit from this experience.

New students should use their first seminar to present a literature review related to their research, and an outline of their proposed project. This presentation should be a clear, concise review of the literature that supplies the audience with an overview of the general research area (what has been done, what is being done, what is going to be done and why this is important). The review may include previous data from research conducted by the student's supervisor and from other laboratories. The student's own research project should then be outlined relative to the "larger picture" painted from the overview of the field. The objectives of the research, the approaches to be used and the expected significance of the results should be detailed.

Subsequent seminars may be research presentations of the student's own data or literature reviews of other significant research areas of general interest (topics should be discussed with the supervisor).

## **13 Journal Club Participation**

---

Students are encouraged to join and participate in a journal club most closely related to their particular discipline. This journal club participation is in addition to the regular discipline seminars.

## **14 Residency Period**

---

- i. Although only 1 year is required, it is expected that most residents will take two years to complete their M.Sc. Flexibility for individuals with parental responsibilities or health leave will also be considered. A maximum of 5 years is allowed.
- ii. Although only two years are required, it is expected that most residents will complete their PhD requirements in 3 or more years. A maximum of 6 years is allowed.

## 15 Thesis Components and Defence

---

### 15.1 Title of Thesis

---

A title of the Ph.D. thesis, indicative of subject matter, must be submitted to the Dean of Graduate Studies for Faculty approval no later than six months before the expected final thesis examination. This is the responsibility of the student and their supervisor.

### 15.2 Thesis Submission

---

Please visit: <https://www.dal.ca/faculty/gradstudies/current-students.html> or <https://dalu.sharepoint.com/sites/graduate-studies/SitePages/submitting.aspx> for FGS regulations on thesis submission.

### 15.3 Thesis Defence

---

All MSc and PhD candidates will make a public oral presentation of their work for not more than 20 minutes. Thereafter, questions will be asked by the examining committee. The Medical Research Program office will arrange and publicize the MSc defence, PhD defences are arranged and publicized by the Faculty of Graduate Studies. Both are done in consultation with the research supervisor and the student. The MSc defence will be chaired by the Graduate Coordinator, or the Coordinator's designate, and the PhD defence by the Dean of Graduate Studies or by an appointee of the Dean.

Please visit: <https://www.dal.ca/faculty/gradstudies/current-students.html> or <https://dalu.sharepoint.com/sites/graduate-studies/SitePages/forms.aspx> for FGS regulations on theses and defences.

### 15.4 Thesis Defence Examination Committee

---

- i. MSc: Supervisor, two committee members and one additional faculty member, all FGS affiliated, to act as examiner external to the student's research discipline
- ii. PhD: Supervisor, three committee members and an FGS approved external examiner (external to the University)

## 16 Funding

---

Residents will receive an equivalent salary to their clinical counterparts. The funding for the students enrolled in the program can come from a variety of sources which include outside scholarships from national funding bodies, such as CIHR; specialty foundations, such as the Heart & Stroke Foundation; local bodies, such as the Nova Scotia Health Research Foundation;

or from internal sources, such as departments, divisions, and individual operating grants and contracts held by Faculty of Medicine researchers.

Funding for Graduate Studies in the Medical Research Program **must** be secured through your Clinical Department Head or other source **prior** to acceptance into this program. A letter from the funding source will serve as sufficient documentation for this purpose.

Students in this program are **not eligible** for funding through the Faculty of Graduate Studies.

### **17 Other Program Policies**

---

The Graduate Program in Medical Research adheres strictly to the zero-tolerance sexual harassment policy of the University.

### **18 More Information**

---

If you have questions about any of the material in this handbook or about any aspect of the Medical Research Program, please direct your enquiries to:

Dr. Michael Bezuhly  
Graduate Coordinator

Program Manager  
Medical Research Development Office

Email: [mbezuhly@dal.ca](mailto:mbezuhly@dal.ca)

Email: [mrdo@dal.ca](mailto:mrdo@dal.ca)

**Revised October 2024**