Introduction to the Neuroscience and Mental Health Institute

The Neuroscience and Mental Health Institute (NMHI) at the University of Alberta is multi-faculty, interdisciplinary teaching and research Translational Science Institute. The NMHI offers a graduate program that is designed for students who desire a broad training in various experimental and theoretical aspects of neuroscience while maintaining a research program that may be more specialized. This can be achieved by drawing on the expertise of our members from various departments and faculties at the University of Alberta who have research interests in neuroscience.

The following are the regulations governing graduate studies in the NMHI at the University of Alberta. They encompass and, in some cases, may supersede the equivalent regulations of the Faculty of Graduate Studies and Research (FGSR). Students and supervisors are referred to the University Calendar for further information.

The Neuroscience Graduate Student Association (NGSA) is the graduate student group within the NMHI. If you are interested in joining the NGSA, elections are typically held in June. Please feel free to reach out to neurosci.gsa@gmail.com. Watch for exciting events arranged by the NGSA such as the NMHI Research Day, Brain Awareness Week and public lectures.
Program Requirements MSc and PhD Students

Requirements to complete the graduate program include: courses, ethics, seminar attendance, NMHI Research Day attendance, annual meetings with your supervisory committee and graduate coordinator, a thesis proposal, candidacy exam (for PhD students), final defense and submission of a thesis.

Course Requirements MSc and PhD

A total of 6 credits and a thesis are required for the MSc degree. The only exception to course requirements for the MSc degree would be for clinical trainees such as medical residents, who, (in consultation with and approval of the graduate coordinator), may be exempt. Students are expected to have completed undergraduate courses such as PMCOL 371 and PHYSL 372 or their equivalent. Students deficient in this area may require this as a condition to their admission.

Effective September 2014, MSc students have the option, in consultation with their program supervisor, to complete a lab rotation course, typically during the first year. Students can choose either NEURO 500 (two terms; 6 credits) or NEURO 501 (one term; 3 credits). NEURO 500 involves rotations through three laboratories during the first year. Each rotation involves two months of research experience (six months in total). One rotation may be in the laboratory of the primary supervisor. Although this course is 6 credits, an additional lecture-based, graduate-level course will be required to meet the course requirements if students register in NEURO 500. NEURO 501 involves rotation through one laboratory taken outside of the laboratory of the primary supervisor. Students, in consultation with their supervisory committees, may also select courses in other areas important to their research programs. Effective September 2014 (for new students only), MSc students, therefore, must complete NEURO 500 or 501 and one lecture-based course, or two lecture-based courses, from the Neuroscience approved course list.

PhD students must complete 9 credits, a candidacy exam, and a thesis. An important feature of the PhD program is the requirement that students participate in a lab rotation course, typically during the first year. Students must choose either NEURO 500 (two terms; 6 credits) or NEURO 501 (one term; 3 credits). NEURO 500 involves rotations through three laboratories. Each rotation involves two months of research experience (six months in total). One rotation may be in the laboratory of the primary supervisor. NEURO 501 involves rotation through one laboratory taken outside of the laboratory of the primary supervisor. Effective September 2014 (for new students only), PhD students, therefore, must complete either NEURO 500 and one lecture-based course, or NEURO 501 and two lecture-based courses, from the Neuroscience approved course list.

NMHI graduate students may take a graduate level reading course for 3 credits to fulfill their course requirements. However the following limitations apply:

1. The course must be taken with a Faculty member other than the student’s supervisor(s).
2. The course can be from any department, but it must be approved by the NMHI graduate coordinator.
3. Students cannot meet their graduate student quota of 6 (MSc) or 9 (PhD) credits merely based on a combination of lab rotation and reading courses (i.e., some didactic, lecture based course work is required)

*Students are required to maintain a minimum cumulative program grade point average of 3.3 (B+) throughout their program.*

**Ethics**

The academic integrity and ethics training requirement stipulates that all graduate students must complete eight hours of structured academic activity in academic integrity and ethics prior to convocation.

NMHI graduate students are required to complete the following ethics and program requirements:

1. Complete the [.GET (Graduate Ethics Training)](https://example.com) WebCT course offered by Faculty of Graduate Studies (FGSR). The course may be accessed from FGSR’s homepage.

   Once completed, the student must provide the NMHI Administrator a copy of their results.

2. Participate in the [Ethics & Scientific Integrity Day](https://example.com) organized by the Faculty of Medicine and Dentistry (FoMD). FoMD offers the Scientific Integrity Day generally once (February) per academic year. It is strongly recommended that students complete this requirement early in their graduate program as space is limited and fills up quickly.

   Once the ethics training is complete, proof of completion will submitted to the NMHI Administrator from the FoMD Graduate Programs Administrator.

3. Individual Development Plan (IDP) – eight hour of professional development activities. The University of Alberta in collaboration with FGSR encourage graduate students develop post-university skills throughout their program. The IDP and Professional Development completion forms must be submitted prior to convocation and is recommended to be completed early in your program (3 years PhD, before the completion of your Master’s). Please visit [FGSR’s website](https://example.com) for more information.

**Seminar Attendance**

In addition to the required courses, students are required to attend regularly scheduled weekly seminars offered in the Neuroscience Seminar Program. All graduate students are required to attend 20 seminars per year anywhere on campus and at 10 of the seminars must be selected from the list of formal Neuroscience seminars hosted by the NMHI. There are also a number of special seminars the NMHI hosts that students will be required to attend in addition to the mandatory minimum of 10 weekly seminars per year.

Students must track their individual seminar attendance and include this report in their yearly report which is sent out in June. Participation in these seminars is a requisite for continuation in the program.
NMHI Events & Outreach

NMHI Research Day

One day each year is designated as Neuroscience and Mental Health Institute Research Day (NRD) which highlights graduate student research within the institute and facilitates interdisciplinary interactions among students and faculty. The format of NRD typically includes: student posters and presentations followed by a keynote presentation from a distinguished scientist from outside of the University of Alberta. It is mandatory each student attends NRD as participation is a requisite for continuation on the NMHI graduate program.

Brain Awareness Week

Brain Awareness Week (BAW) is the global campaign held every March to increase public awareness of the progress and benefits of brain research. NRD is generally held on the Friday before BAW events begin.

Run for Brain Research

The run for brain research also known as the Neuroscience, Education, Research and Development (NERD) Run is an annual event hosted by the NMHI to increase support and awareness of neuroscience research.

The Synaptic Post

The Synaptic post is an NMHI weekly newsletter created to keep students, NMHI members and the greater University community up to date on our events and research accomplishments. Please ensure that you are receiving the newsletter as this is the tool to keep you best informed on the upcoming events, seminars and opportunities.

The Faculty of Graduate Studies and Research

FGSR sends out a newsletter to keep all graduate students up to date with any news and events. Watch for opportunities to complete you Individual Development Plan (IDP) hours.
Supervisory Committee Composition (MSc and PhD)

Committees will be formed in accordance with FGSR regulations. Supervisory committees for all Students (both MSc and PhD) must be appointed by six months into the student's first year in the program and a supervisory committee meeting must be held within the first 6 months of the student’s first year.

The Committee will consist of the supervisor and at least 2 other full-time faculty members (at least 1 of whom is a NMHI member). All supervisors must be members of the NMHI with active research programs. New investigators, members who hold an MD degree (with no thesis), or members who have not graduated a student will normally be required to appoint a co-supervisor for their students. The co-supervisor must first be approved by the graduate coordinator.

The supervisor/student will suggest names of potential committee members to the graduate Coordinator for approval, names will be forwarded to the Faculty of Graduate Studies and Research (FGSR) for the final approval.

**Duties**

1. Meet with the student *at least once a year* to determine the student's progress and to advise on academic and research matters. A *“Report of Supervisory Committee”* form must be submitted to the NMHI office after each supervisory committee meeting.

2. Take part in examinations required by the FGSR (e.g., Candidacy Examinations, Final Oral Examinations).

3. **The Supervisor has specific responsibilities:**
   a) Ensures that the student meets all the administrative requirements of the NMHI and FGSR. Note that, in accordance with FGSR regulations, it is the supervisor's responsibility and not the student's to arrange supervisory committee meetings and examinations.
   b) Provides the research support necessary for completion of the thesis research.
   c) Makes every possible effort to secure financial support for the Student.
   d) Provides the NMHI graduate committee with an annual written report on the student's performance as requested. This will be requested in June with the student annual report.
**Thesis Proposal and Evaluation – MSc and PhD**

By the end of the first year of the MSc program or by 18 months into the PhD program, the student will submit a thesis proposal document, which will be evaluated by the supervisory committee, and the student will be required to defend his/her proposal orally to that committee in response to questions. Exceptions to this time frame may be granted by the graduate committee of the NMHI.

**Examination Committee Composition**

- The chair, appointed by the NMHI from among the members of the graduate committee
- The student’s supervisory committee

Please note that committee membership must be approved in advance by the Graduate Coordinator.

**Purpose of the Examination**

The purpose of the examination is to determine the student’s ability to formulate a hypothesis based on existing evidence, and to design an experimental test of that hypothesis. The student must demonstrate a knowledge of the literature relevant to the problem to be addressed, and must show an appreciation of good experimental design and the technical difficulties and pitfalls inherent in the chosen methodology.

**Role of the Examination Committee**

The examination committee will review the student’s performance in formal course work, the student’s competence as revealed by the thesis proposal itself and the student’s ability to defend the content of the proposal. Committee members will assess the feasibility of the project within the projected timeline and determine whether the project is of sufficient quality and quantity for the degree proposed. Following this review, a determination will be made on the student’s future status within the program and recommend any further courses deemed necessary to attain an acceptable level of knowledge. Committee members are encouraged to provide feedback to improve the quality of the research project and identify potential obstacles or pitfalls.

**Thesis Proposal Document**

At least one week prior to the date of the evaluation, the student will provide each member of the supervisory committee and the chair with a copy of the thesis proposal. The documents must include a brief introduction to the research topic, a summary of the student’s work done to date and an outline of the research plan, including methodology and anticipated time lines for completion. Typically, the thesis proposal document should be between 10-20 double-spaced pages (not including figures or references).
Preparing for the Examination

At least three weeks in advance of the exam, the supervisor will provide the NMHI administrator with the date, time, and place of the exam. The administrator will then appoint the chair and notify the committee and the student.

Format of the Examination

At the evaluation:

1. In the presence of the student, the chair will summarize the student’s performance in course work to date.

2. The student will give a short (no longer than 20 minutes) presentation summarizing the thesis proposal.

3. The student will defend the proposal in response to questions from each committee member in turn. Questions may include more general areas of relevant neuroscience so that the committee may be satisfied that the student has an appreciation of the subject adequate to pursue the proposed research.

4. Discussion among the committee members concerning the outcome of the evaluation is carried out in the absence of the student.

5. Following the conclusion of the exam, a ‘Report of Supervisory Committee’ form must be completed, signed, and returned to the NMHI office.

6. If an MSc Student intends to transfer into the PhD program and successfully completes a PhD Thesis Proposal, a ‘Recommendation for Change of Category’ form must be completed and submitted to the NMHI.

Possible Outcomes of the Examination

For Students Registered in the MSc Program:

- **Proceed unconditionally** - Excellent performance with no or minor areas of weakness that do not require remedial action. Allows for continuation in the MSc Program, or, if appropriate, transfer to the PhD Program.

- **Proceed conditionally** - Adequate performance with areas of weakness identified. Committee recommends remedial action. Allows for continuation in the MSc Program, or, if appropriate, transfer to the PhD Program.
• **Repeat evaluation** - Only given if the committee feels that there are extenuating circumstances or if the performance is much poorer in one or more areas than anticipated from the student’s record.

• **Transfer to PhD Program** – In addition to any conditions set, the student is granted permission to transfer to the PhD program.

• **Withdraw** - The student is asked to withdraw from the program. The student may choose to remain in the program for the remainder of the academic year. Students who fail will not be considered for readmission to the program.

*For Students Registered in the PhD Program:*

• **Proceed unconditionally** - Excellent performance with no or minor areas of weakness that do not require remedial action. Allows for continuation in the PhD Program.

• **Proceed conditionally** - Adequate performance with areas of weakness identified. Committee recommends remedial action. Allows for continuation in the PhD Program.

• **Repeat evaluation** - Only given if the committee feels that there are extenuating circumstances or if the performance is much poorer in one or more areas than anticipated from the Student’s record.

• **Transfer to the MSc Program** - In addition to any conditions set, the student is asked to transfer to and complete an MSc program.

• **Withdraw** - The student is asked to withdraw from the program. The Student may choose to remain in the program for the remainder of the academic year.

*Transfer from an MSc Program to the PhD program*

A transfer to the PhD program will be based on both the student’s performance in course work and demonstrated ability to conduct PhD level research. A comprehensive evaluation of the student's progress will be carried out (normally at the end of the first year) and, after successful completion of a PhD thesis proposal committee meeting, the supervisory committee may recommend transfer to the PhD program. There are two options for MSc students to complete a PhD thesis proposal exam:

1. The student can prepare a PhD thesis proposal with prior approval of the supervisor and supervisory committee and not hold an MSc proposal.

2. The student can prepare a PhD thesis proposal following his/her MSc thesis proposal if it is decided following the MSc proposal that the student wishes to transfer to the PhD program.
PhD Candidacy Examination

Candidacy exams should be scheduled by the end of the 2nd year in the program and held in the 3rd year of the program at the latest. For students who began their program in September 2013 and later and who transferred to the PhD program directly from the MSc program, candidacy exams should be scheduled by the end of the 3rd year in the program and held in the 4th year of the program at the latest.

This is a time when most, if not all, of the course work is completed and the thesis research is started or is well defined. The candidacy examination must be passed no less than 6 months prior to taking the final oral examination.

Examination Committee Composition

- The chair is a member of the NMHI graduate committee who is not the supervisor and is appointed by the NMHI administrator.
- The student’s supervisory committee
- The minimum size of a candidacy examination is five examiners. The maximum size is seven examiners
- Two arm’s length examiners. ‘An arm’s length examiner is knowledgeable in the field and comes fresh to the examination. They must not be (or have been) a member of the supervisory committee, or have been connected with the thesis research in a significant way. The examiner should not have been associated with the student, outside of usual contact in courses or other non-thesis activities within the University, nor be related to the student or supervisor(s). The arm's length examiners should not be a former supervisor or student of the supervisor(s).’ The supervisor, often in discussion with the student, selects and invites the two additional examiners to be on the committee.

Purpose of the Examination

The purpose of the examination is for the student to demonstrate that he/she has a broad knowledge of neuroscience and of the subject matter relevant to the thesis and has the ability to pursue and complete original research at an advanced level. The questioning will not be directly related to the thesis research, but rather questions will cover a broad scope which can include basic neuroscience concepts, broader concepts in the student’s research area as well as theoretical and technical aspects of data collection and analysis.

Role of the Examination Committee
During the examination the role of each examiner is to test the student's knowledge in specific topic areas previously outlined (see below) and related areas.

Preparing for the Examination

1. The examination committee should be established well in advance of the examination. The student should then meet or be in contact with each examiner to discuss general content areas that they will base their questions on and establish appropriate sources for background reading material. The specifics regarding the reading sources provided by examiners will vary depending on each examiner; examiners may provide a very specific "reading list" or a more general "reading area".

2. At least five weeks in advance of the exam, the supervisor must provide the NMHI with the date, time, and place of the exam as well as the names of the two extra examiners. The administrator will then arrange for a chair and notify the supervisory committee and the student of the chair.

3. The chair is charged with ensuring that the exam is of a consistent standard. Students are expected to have good and general neuroscience knowledge. Effective September 1, 2013, the expectation of students will be that they could adequately explain all topics covered (including appendices) in Bear et al, Neuroscience: Exploring the Brain (either 2nd or 3rd edition).

4. The administrator will provide the supervisor with a completed FGSR ‘Notice of Examining Committee & Examination Date’ form which the supervisor must sign, and return to the administrator.

5. The administrator will ensure that form is complete and submit the form to FGSR at least 3 weeks in advance of the exam.

Format of the Examination

The Student does not present the committee with a written report. The examination will begin with a review of the student's progress including course work, awards, publications and presentations. The student will then provide a 15-20 minute oral presentation outlining their thesis. Emphasis should be given to describing the overall goals and hypotheses being tested. Key data can be presented to emphasize progress of the thesis work and the presentation should conclude with an outline of future plans for completion of the thesis. It should be noted that during the candidacy examination only minor attention should be given to the thesis work.

Possible Outcomes of the Examination

One of the following outcomes of the candidacy is appropriate: Adjourned, Pass, Conditional Pass or Fail.
MSc Final Examination

Typically, the final oral exam for MSc students is scheduled at the end of the second year or approximately 1 year after the thesis proposal meeting. MSc students have 4 years from their first term of registration to complete all degree requirements.

Examination Committee Composition

- The chair is a member of the NMHI graduate committee who is not the supervisor and is appointed by the NMHI administrator.

- The student’s supervisory committee.

- The minimum size of a master’s final thesis examination is three examiners. The maximum size is five examiners.

- One arm’s length examiner. ‘An arm’s length examiner is knowledgeable in the field and comes fresh to the examination. They must not be (or have been) a member of the supervisory committee, or have been connected with the thesis research in a significant way. The examiner should not have been associated with the student, outside of usual contact in courses or other non-thesis activities within the University, nor be related to the student or supervisor(s). The arm’s length examiners should not be a former supervisor or student of the supervisor(s).’ The supervisor, often in discussion with the student, selects and invites the additional examiner to be on the committee.

Purpose of the Examination

The purpose of the MSc final examination is to assess the student’s knowledge of the literature relevant to their research area, understanding of the procedures used to collect and analyze their data, understanding of the significance of their research in the context of their research area, and knowledge of the limitations and pitfalls of their chosen methodology.

Role of the Examination Committee

The committee will review the thesis document and conduct an oral examination to test the student's knowledge of the thesis subject and of related fields. The final decision of the examination committee will be based both on the quality of the thesis document and on the student’s performance in defense of that document.

MSc Thesis Document

All regulations regarding the preparation of the thesis are governed by FGSR.
Preparing for the Examination

1. Students must submit a completed thesis to the supervisory committee with sufficient time so that each member can submit a form indicating their decision on its suitability for defence at least five weeks prior to the examination. The exam date cannot be set before members of the supervisory committee recommend, on the “Preliminary Acceptance of Thesis” form available on the NMHI website, that the thesis is acceptable for examination.

The exam must be set with FGSR three weeks prior to the date of the exam and a chair for the exam must be arranged, the Preliminary Acceptance of Thesis form(s) must be submitted by the student to the NMHI office at least five weeks before the date of the exam. The supervisory committee members can each sign a different form; all signatures do not have to be on the same form.

2. Once the NMHI administrator receives all of the signatures as supplied by the student, the Administrator will inform the supervisor. It is then the responsibility of the supervisor to arrange the date, time, and place of the exam at least 5 weeks prior to the exam.

3. Once the Administrator has been informed of the date, time, and place of the exam, the Administrator will arrange for the chair from among the members of the NMHI graduate committee. The Administrator will then inform the supervisor and student of the chair. It is then the student’s responsibility to provide a hard and/or electronic copy of the thesis to the chair.

4. Once the meeting has been set and the chair arranged, the Administrator will email the supervisor the FGSR form “Notice and Approval of a Master's Final Oral Examining Committee & Examination Date.” The supervisor must sign the form and submit to the NMHI.

5. The student must provide the NMHI Administrator with the exact name of the thesis as soon as it is known and at least a few days prior to the exam.

6. The Administrator will provide FGSR with the “Notice of Examining Committee & Examination Date” at least 3 weeks prior to the exam.

Format of the Examination

A formal public seminar is not required for an MSc degree but can be scheduled if the student and/or supervisor like to hold one prior to the exam. It would be attended by the supervisory committee and other interested individuals. If a seminar is scheduled, please ensure that the venue is appropriate and provide the NMHI office with a seminar title and abstract at least 2 weeks in advance so the seminar notice may be circulated. If the student
does not present a public seminar the final examination will be preceded by a 30 minute presentation attended by the supervisory committee.

**Possible Outcomes of the Examination**

One of the following outcomes of Master’s Final Examination is appropriate: Adjourned, Pass, Pass subject to revisions or Fail.

**Time Limit for Submission of Theses to FGSR**

Following completion of the final oral examination at which the thesis is passed or passed subject to revisions, the Student shall make the appropriate revisions where necessary and submit the approved thesis to FGSR within 6 months of the date of the final oral examination. The Neuroscience and Mental Health Institute may impose earlier deadlines for submitting revisions.

If the thesis is not submitted to FGSR within the 6 month time limit, the student will be considered to have withdrawn from the program. After this time, the student must apply and be re-admitted to FGSR and register again before the thesis can be accepted.

If the final oral examination is adjourned, the 6 month time limit will take effect from the date of completion of the examination where the thesis was passed with or without revisions.

In order to convocate students must submit their thesis to the FGSR for approval before the deadline dates set out in the Academic Schedule of the Calendar. Students must also ensure that they are registered in the appropriate Thesis course in their last registration prior to convocation.
PhD Final Examination

The final exam for PhD Students is normally held at the end of the fourth year in the graduate program. PhD Students have a maximum of six years from their first term of registration to complete all degree requirements. Master's students who are transferred to a doctoral degree must complete all degree requirements within 6 years from their first term of registration as a Master's Student.

Examination Committee Composition

- The chair is a member of the NMHI graduate committee who is not the supervisor and is appointed by the NMHI administrator.

- The student’s supervisory committee

- The minimum size of a doctoral final examining committee is five examiners. The maximum size is seven examiners.

- An external examiner from outside of the University of Alberta

- Two arm’s length examiners. *An arm’s length examiner is knowledgeable in the field and comes fresh to the examination. They must not be (or have been) a member of the supervisory committee, or have been connected with the thesis research in a significant way. The examiner should not have been associated with the student, outside of usual contact in courses or other non-thesis activities within the University, nor be related to the student or supervisor(s). The arm’s length examiners should not be a former supervisor or student of the supervisor(s).* The supervisor, often in discussion with the student, selects and invites the additional examiners to be on the committee.

- It is the responsibility of the Supervisor to inform the NMHI office of the UofA external examiner and the non-UofA external examiner.

The exam chair will be appointed by the NMHI office from among the members of the NMHI graduate committee.

Purpose of the Examination

The purpose of the final PhD examination is to assess the student’s knowledge of the literature relevant to their research area, understanding of the procedures used to collect and analyze their data, understanding of the significance of their research in the context of their research area and knowledge of the limitations and pitfalls of their chosen methodology. The PhD thesis must include the results of original investigations and analyses and be of such quality as to merit publication; furthermore, it must constitute a substantial contribution to the knowledge of the student's field of study.
Role of the Examination Committee

The committee will review the thesis document and conduct an oral examination to test the student's knowledge of the thesis subject and of related fields. The final decision of the examination committee will be based both on the quality of the thesis document and on the student’s performance in defense of that document.

PhD Thesis Document

All regulations regarding the preparation of the thesis are governed by FGSR.

Preparing for the Examination

1. External Examiner outside of the University of Alberta
   
   a) Once an external examiner has been chosen by the Supervisor, the Supervisor must complete the “External Examiner Invitation” form required by FGSR (found in the forms cabinet on the FGSR website) a CV for the External Examiner and a ‘FoMD PhD External Examiner Conflict of Interest Checklist’

   b) The NMHI office will forward documents to the graduate programs advisor in FoMD for Faculty Approval. The external invitation, CV and conflict of interest checklist must be submitted to the NMHI office at least six weeks ahead of the exam date.

   c) Once approved by FoMD, the external examiner form will be sent directly to FGSR. The external will receive an official invitation letter from the NMHI signed by the graduate coordinator. At that point neither the supervisor nor student can have any contact with the external. The administrator will inform the student and supervisor when the invitation has been sent

   d) In the letter of invitation sent to the external examiner by the NMHI, the external examiner is requested to prepare and send to the graduate coordinator, at least 1 week in advance of the examination, a brief written commentary (approximately 2 to 3 pages) on the structure, methodology, quality, significance and findings of the thesis. The commentary should not be given to the student prior to the examination.

   e) Very limited funding is available from the NMHI for the travel required by the external examiner. A written request must be made to the NMHI Director. There is also funding from FGSR to cover the costs associated with bringing in external examiners; Supervisors must apply for this funding first and submit the decision of the request to the NMHI Director with their request.
2. Preliminary Acceptance of Thesis

a) Before the final exam can be scheduled members of the supervisory committee are required to recommend, on the ‘Preliminary Acceptance of Thesis’, that the thesis is acceptable for examination. The form must be submitted to the NMHI office by the student.

The Preliminary Acceptance of Thesis form(s) must be submitted by the student to the NMHI office at least 6 weeks before the date of the exam. The committee members do not have to all sign the same form. The external examiner must receive a copy of the thesis at least one month ahead of the exam.

b) Once the signature forms have been received, the administrator will inform the supervisor that he/she can now set the date, time, and place of the exam. The supervisor must inform the administrator once this information is confirmed.

c) For the public seminar, the student can send the title and picture for an NMHI poster for advertisement.

3. Examination Chair

a) A chair will be arranged through the NMHI office from among the members of the neuroscience graduate committee after the administrator has received the signatures from the supervisory committee and after the supervisor has informed the administrator of the date, time, and place of the exam.

b) Once the chair is arranged, the supervisor and student will be informed. The student then must provide a hard or PDF copy of the thesis to the chair.

4. University of Alberta (Internal) External Examiner (arm’s length)

a) After the student’s supervisory committee preliminarily accepts the thesis for examination, the student must provide the internal external (arm’s length) examiners with a hard copy or PDF of the thesis, whichever is preferred.

5. FGSR-Required Form

a) Once the examination has been set and the chair arranged, the administrator will email the supervisor the FGSR form ‘Notice of Examining Committee & Examination Date.’ The supervisor is required to sign and return the form back to the administrator for the graduate coordinator’s signature.

b) The administrator must provide FGSR with the ‘Notice of Examining Committee & Examination Date’ form at least 3 weeks prior to the exam.
6. Examination Seminar

   a) The examination will be preceded by a 30 minute to one hour public seminar and question period that will be attended by the examining committee and other interested individuals. The student must provide a seminar title and short abstract to the NMHI office at least 2 weeks in advance of the exam so that the seminar notice can be circulated. The seminar is usually held in the same room as the exam if the room is appropriate. It is the responsibility of the Supervisor to arrange for the venue of the seminar.

**Format of the Examination**

1. After a brief break following the public seminar the examining committee and the student reconvene for the formal final examination. After initial introductions are made, the student leaves room while the committee discusses the student's performance in the program and establishes the order of questioning.

2. It is generally agreed that the most time should be allotted to the internal/external member and the external examiner and the least to the supervisor. In this way new and challenging questions are asked in place of reiteration of questioning already utilized to develop the student and enhance the research. Examiners should avoid discussions among themselves that exclude the student. They should not lecture but should ask detailed questions about the thesis and occasional broad, disciplinary questions. Typographical and stylistic errors should not take up examination time.

3. At the close of the examination the student is asked if they have any final questions or comments before they asked to withdraw.

4. For the adjudication, no final verdict should be rendered without each examiner having given an opinion. Two opinions will be sought: (1) on the acceptability of the thesis; and (2) on the acceptability of the defence. When a positive conclusion is obvious, some time should be spent on discussing the future of the thesis and the research area.

5. The Student is invited back into the room and the Chair announces the decision and provides feedback on the committee's discussions regarding the strengths and weaknesses of the thesis and the thesis defence.

**Possible Outcomes of the Examination**

One of the following outcomes of the doctoral final is appropriate; Adjourned, Pass, Pass Subject to Revisions or Fail.
Time Limit for Submission of Doctoral Theses to FGSR

Following completion of the final oral examination at which the thesis is passed or passed subject to revisions, the student shall make the appropriate revisions where necessary and submit the approved thesis to the FGSR within 6 months of the date of the final oral examination. The Neuroscience and Mental Health Institute may impose earlier deadlines for submitting revisions.

If the thesis is not submitted to the FGSR within the 6 month time limit, the student will be considered to have withdrawn from the program. After this time, the student must apply and be re-admitted to the FGSR and register again before the thesis can be accepted.

If the final oral examination is adjourned, the 6 month time limit will take effect from the date of completion of the examination where the thesis was passed with or without revisions. To be eligible for convocation, all doctoral students must submit their thesis to the FGSR for approval before the deadline dates set out in the Academic Schedule of the Calendar. Students must also ensure that they are registered in the appropriate thesis course in their last registration prior to convocation.
Submission of Final Thesis – MSc and PhD

‘To be eligible for convocation, all students in a thesis degree program must present and defense a thesis embodying the results of their research’ – FGSR. The NMHI requires all graduating students to submit 1 bound copy of their thesis. Please note that the color of the book binding is “Dark Green” for Neuroscience. This copy will be added to the permanent library of the Neuroscience and Mental Health Institute.

Please visit FGSR’s website for academic requirements for your thesis preparation, requirements & deadlines.

- Neuroscience Students will be required to submit a hard copy of the thesis to the Neuroscience and Mental Health Institute office.

- Students may choose to have additional copies printed for Supervisors or personal use but this is not required.

- Please submit your ‘University of Alberta Thesis/Dissertation Non-Exclusive License’ and decide if you will be restricting access to your thesis which will be required before submitting your thesis to FGSR.
Financial Information

Studentships from the Neuroscience and Mental Health Institute

A limited number of graduate research assistantships are available through the NMHI. In addition, graduate teaching assistantships and research assistantships may be available through one of the faculties or departments participating in the graduate program in Neuroscience or from research grants held by individual investigators. Other funding is provided by scholarships awarded to students by federal and provincial agencies such as the Canadian Institutes of Health Research (CIHR), Natural Sciences and Engineering Research Council (NSERC), Alberta Innovates Health Solutions (AIHS) and the Provincial Government of Alberta. Many private foundations also have scholarship programs to support graduate students. Students are expected to apply for external funding.

Eligibility

Any Supervisor with a student enrolled full-time in the Neuroscience graduate program and not receiving support from a major competitive award (CIHR, AIHS, NSERC, etc.) may apply for partial funding from the NMHI for their student entering their second year (and beyond) of graduate studies.

Procedure for application and evaluation

Application information will be distributed to Supervisors as funding is available. Generally the applications are sent out in the summer before the beginning of fall term. Funds will be distributed on the basis of need, special circumstances related to progress in the graduate program and a fair distribution to different laboratories.

Each application should include a statement from the student listing their current source(s) and amount(s) of funding and a letter of support from the student’s supervisor explaining the need for financial assistance and listing the current funding support of the laboratory.

The applications for support will be evaluated by the graduate committee ahead of each fall semester. Members of the graduate committee submitting applications will not participate in the evaluation procedure. These members will be replaced on an ad-hoc basis.

Scholarships

A number of University of Alberta and private scholarships are available to NMHI graduate students. Students are responsible for researching scholarship eligibility and deadlines on FGSR’s website. Emails are sent out as reminders to students to ensure that they submit their applications to the NMHI (internal deadlines) to be reviewed by the graduate committee.

Fees

Graduate student fees and tuition are regulated by the University. It is the student’s responsibility to track all fees and pay all amounts owing by the specified deadlines.