# Neuroscience and Applied Cognitive Science Psychology Graduate Handbook - PhD

2025-2026 Handbook

Introductory Remarks

The PhD in Psychology in the area of Neuroscience and Applied Cognitive Science provides advanced graduate training for students interested in the integrative functioning of the brain. This encompasses basic cognitive processes, behavioural neuroscience, cognitive ergonomics, cognitive neuroscience, developmental and life-span cognition, evolution and behaviour, and foundations of cognitive science.

# Area-specific Milestones NACS PHD

Please note that this document was prepared as a guideline to help you plan your time. Every project will be a little bit different.  Be sure to work out a timeline in consultation with your advisor.

## NACS PhD Typical progress sequence

Please note that every thesis degree will be different; often times depending on the thesis research project. For example, some projects will have very extensive and time consuming data collection stages, whereas others may take extra time at the analysis stage. These guidelines are meant as suggestions for students continuing from the MSc program at the University of Guelph. Be sure to work out key goals and a timeline in consultation with your advisor and to update your goals and timeline in collaboration with your advisor every semester.

### Typical progress sequence for PhD students (for students continuing from MA)

#### PhD year 1

Semester 1 (7) Fall

Courses:

1. PSYC*6760 [0.50] Research Seminar in NACS B (must reregister every fall and winter)

2. One elective from the following list (a total of three must be completed during the program): -
PSYC*6472 [1.00] Practicum II (credited as two electives)
- PSYC*6750 [0.50] Applications of Cognitive Science
- PSYC*6780 [0.50] Foundations of Cognitive Science
- PSYC*6790 [0.50] Memory and Cognition
- PSYC*6800 [0.50] Neurobiology of Learning
- PSYC*6810 [0.50] Neuropsychology
- PSYC*6900 [0.50] Philosophy and History of Psychology as a Science
- For students NOT completing the Collaborative Neuroscience Specialization, PSYC*6000 [0.50]

Principles of Neuroscience
- A graduate elective from outside this list with the permission of your advisor

3. If completing the Collaborative Neuroscience Specialization: NEUR*6100 [0.00] Seminar in Neuroscience
Practicum:
- Discuss with advisor
PhD thesis:
- Draft ideas for proposals
Qualifying exam (see QE examination section for more details):
- None
Advisor-independent research:
- Seek out research opportunities with other faculty members than primary advisor(s) (if applicable, recommended for research stream, discuss with your primary advisor(s))

Scholarships:
1. Apply for OGS
2. Apply for NSERC or other Tri council scholarship
3. Other options may also available depending on your research topic search the web and discuss with your supervisor

**Semester 2 (8) Winter**

Courses:
1. PSYC*6760 [0.50] Research Seminar in NACS B (must re-register for Winter)
2. One of the three required electives
3. If completing the Collaborative Neuroscience Specialization: NEUR*6100 [0.00] Seminar in Neuroscience

PhD thesis:
1. Form PhD thesis committee no later than the 20th class day of the 2nd semester.
2. Submit Program of Study to Graduate Program Coordinator for approval no later than the 20th class day of the 2nd semester.
3. Initial PhD committee meeting no later than the end of 2nd semester. After the committee is formed, it is recommended that the student, their Advisor, and the two committee members meet to discuss the expectations for that particular committee (e.g., does committee plan to have regular meetings, when does the student expect to have a proposal meeting, etc.)
4. PhD thesis proposal draft submitted to advisor (see PhD Thesis proposal section for more information)

Qualifying exam (see QE examination section for more details):
- None

Advisor-independent research
- Seek out research opportunities with other faculty members than primary advisor(s) (if applicable, recommended for research  stream, discuss with your primary advisor(s))

Scholarships:
- None

**Semester 3 (9) Summer**

Courses:
- None

PhD thesis:
- Approval of PhD thesis proposal by advisor; deadline to be worked out with advisor (see PhD Thesis proposal section for more information)
- Send proposal to committee members at least two weeks before committee meeting
- Meeting with advisory committee to discuss proposal; this meeting should occur at least four weeks before the end of the student's semester 3 (5 for students without a Master's), to allow time for revisions
- Committee approval of proposal. The proposal must be approved by the end of semester 3 (5 for students without a Master's)  Qualifying exam (see QE examination section for more details)
- None

Advisor-independent research
- Seek out research opportunities with other faculty members than primary advisor(s) (if applicable, recommended for research stream, discuss with your primary advisor(s))

Scholarships
- Revise OGS, SSHRC and any other grant application

*Important departmental milestones to achieve during the degree (full-time registration only): PhD must have their approved thesis proposal: 3rd semester. If the milestone is not met it will result in a "Some concerns" on the student's progress report.

### PhD years 2 and onwards

#### Semester 4 (10) Fall

Courses:
- Same as previous Fall/Winter

Semester 5 (11) Winter
Qualifying exam (see QE examination section for more details):

*Important departmental milestones to achieve during the degree (full-time registration only): PhD must have defended their dissertation: 15th semester. If the milestone is not met it will result in a "Some concerns" on the student's progress report.

## Advisory Committee Membership

See Chapter II, heading Student Programs, subheading Establishment of the Advisory Committee

See also Chapter IV, heading Doctor of Philosophy, subheading Advising

See also Chapter IV, heading Doctor of Philosophy, subheading Program Regulations

Look for "Area-specific advisory committee membership" below CONTENTS for area-specific guidance if it exists.

## Area-specific advisory committee membership PHD NACS

The advisory committee consists of a minimum of three graduate faculty members, and it is recommended that one be from outside of the student's home department. This committee should be formed no later than the 10th week of the student's 2nd semester.

After the committee is formed, it is recommended that the student, their Advisor, and the two additional committee members meet to discuss the expectations for that particular committee (e.g., does the committee plan to have regular meetings, when does the student expect to have a proposal meeting, etc.)

## Conflict with Advisor or Advisory Committee

See chapter III General information, heading Policy on Responsibilities of Advisors, Advisory Committees and Graduate Students and Graduate Student-Advisor Mediation Procedures, subheading Dispute Resolution Mechanisms (with flowchart)

See also Chapter IV, heading Doctor of Philosophy, subheading Program Regulations

Look for "Area-specific conflict with Advisor or Advisory Committee" below CONTENTS for area-specific guidance if it exists.

## Transfer of advisors

See Chapter IV, heading Doctor of Philosophy, subheading Program Regulations

Look for "area-specific transfer of advisors" below CONTENTS for area-specific guidance if it exists.

## Area-specific Transfer of Advisors NACS PHD

In those rare cases where it is appropriate for a student to change advisors, the following steps are suggested as a path to obtaining a new advisor.

1. The student should notify the NACS graduate studies coordinator who will assist the student in identifying a potential new advisor. In those cases where the advisor is also the NACS graduate studies coordinator, the student should contact the departmental graduate studies coordinator.

2. A new thesis advisory committee will be constructed under the direction of the newly appointed advisor. Normally, at least one of the members of the existing advisory committee will continue as a member of the new advisory committee. The decision to continue as an advisory committee member is at the discretion of the faculty member.

# Examination Committee Membership

See Chapter IV, heading Doctor of Philosophy, subheading Program Regulations

The student's Advisor is responsible for establishing the Examination Committee. It is important that the student does not directly contact the External Examiner. Once the student has an initial draft of the thesis ready for evaluation by their Advisory Committee, the advisor should begin establishing the Examination Committee.

1. They should forward a list of three potential External Examiners to the Graduate Program Assistant who will verify that the examiners are not currently on record with graduate studies (i.e., are not already taking part in the University of Guelph committees).

2. Provided that the Graduate Program Assistant and Advisor cannot identify any conflicts of interest, the Advisor will informally contact externals, verifying with them their availability, and that they are not planning to be serve on any other University of Guelph committees before the Final Oral Examination.

3. The Advisor will then identify the remaining committee members, verifying that each does not have any joint projects with the External Examiner.

4. The full list of proposed Examination Committee members should then be forwarded to the Department Chair (CC'ing the Graduate Program Assistant), for formal approval.

5. Once the External Examiner has been formally approved, the Advisor will obtain the examiners address, phone number, email address, availability for the defense over several weeks, and whether they are planning to attend the Final Oral Examination in person or by video conference.

**All members of the Examination Committee must receive a copy of the final draft of the PhD Thesis (i.e., which include the corrections requested by the Advisory Committee) at least one month (four weeks) before the date of the PhD Thesis Public Lecture & Examination.

Look for "Area-specific examination committee creation" below CONTENTS for area-specific guidance if it exists.

# Area-specific Examination Committee Membership NACS PHD

The Final Oral Examination Committee will consist of five members:

- A member of the regular graduate faculty who is not a member of the advisory committee appointed to act as chair by the department chair on behalf of the Assistant Vice-President (Graduate Studies)

- The external examiner

- A member of the regular graduate faculty, who is not a member of the advisory committee

- Normally, the candidate's Advisor is one of the two members that joint he Examination Committee.

## External PhD Examiner

- The Department Chair appoints an External Examiner from outside the university for each PhD Thesis,

on behalf of the Dean of Graduate Studies, and in consultation with the Advisor. The External Examiner must be a recognized expert in the subject of the thesis.

- The External Examiner must not have been involved in joint projects with the Advisor, student, or other committee members in the last 5 years, must not have served as an Advisor of the student's Advisor, must not have been a student or a member of the graduate faculty at the university in the last 5 years, and must not have served as an External Examiner at the university within the last 3 years. The External Examiner must also have had no direct connection with the student or the student's research project. The Board of Graduate Studies takes assurance of the independence of the External Examiner as a very serious matter.

- The External Examiner is required to submit a written appraisal of the PhD Thesis to the Chair of the Department at least seven days before the Final Oral Examination. The External Examiner is expected to attend the oral examination (in person or by video/phone conference) and assist in evaluating all aspects of the candidate’s performance.

# Examination Committee Creation

See Chapter IV, heading Doctor of Philosophy, subheading Program Regulations

The student’s Advisor is responsible for establishing the Examination Committee. It is important that the student does not directly contact the External Examiner. Once the student has an initial draft of the thesis ready for evaluation by their Advisory Committee, the advisor should begin establishing the Examination Committee.

1. They should forward a list of three potential External Examiners to the Graduate Program Assistant who will verify that the examiners are not currently on record with graduate studies (i.e., are not already taking part in the University of Guelph committees).

2. Provided that the Graduate Program Assistant and Advisor cannot identify any conflicts of interest, the Advisor will informally contact externals, verifying with them their availability, and that they are not planning to be serve on any other University of Guelph committees before the Final Oral Examination.

3. The Advisor will then identify the remaining committee members, verifying that each does not have any joint projects with the External Examiner.

4. The full list of proposed Examination Committee members should then be forwarded to the Department Chair (CC’ing the Graduate Program Assistant), for formal approval.

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**All members of the Examination Committee must receive a copy of the final draft of the PhD Thesis (i.e., which include the corrections requested by the Advisory Committee) at least one month (four weeks) before the date of the PhD Thesis Public Lecture & Examination.

Look for "Area-specific examination committee creation" below CONTENTS for area-specific guidance if it exists.

# Area-specific examination committee creation PHD NACS

The student's advisor in responsible for establishing the Examination Committee. It is important that the student does not directly contact the External Examiner. Once the student has an initial draft of the thesis ready for evaluation by their Advisory Committee, the advisor should begin establishing the Examination Committee.

- They should forward a list of three potential External Examiners to the Graduate Secretary who will verify that the examiners are not currently on record with graduate studies (i.e., are not already taking part in the University of Guelph committees).

- Provided that the Graduate Secretary and Advisor cannot identify any conflicts of interest, the Advisor will informally contact externals, verifying with them their availability, and that they are not planning to be serve on any other University of Guelph committees before the Final Oral Examination.

- The Advisor will then identify the remaining committee members, verifying that each does not have any joint projects with the External Examiner.

- The full list of proposed Examination Committee members should then be forwarded to the Department Chair (CC-íng the Graduate Secretary), for formal approval.

- Once the External Examiner has been formally approved, the Advisor will obtain the examiners address, phone number, email address, availability for the defense over several weeks, and whether they are planning to attend the Final Oral Examination in person or by video conference.

**All members of the Examination Committee must receive a copy of the final draft of the PhD Thesis (i.e., which include the corrections requested by the Advisory Committee) at least one month (four weeks) before the date of the PhD Thesis Public Lecture & Examination.

# Qualifying Exam

See Chapter IV, heading Doctor of Philosophy, subheading Qualifying exam

See Chapter IV, heading Doctor of Philosophy, subheading Program Regulations

Once the examination/defense has been setup by the Graduate Program Assistant, the Chair is responsible for following each program's specific process for the complete examination experience (e.g. questioning process from public attendees and examining committee, avoidance of asking own questions, following the time requirements, etc.). This process needs to be followed as precisely as possible to ensure fairness across all students within the program.

However, it is possible for the student and/or advisor to request a modification or accommodation to the process. All requests must be made to the Examination/Defense Chair who is responsible for ensuring that the process is fair to all students. Accommodations are possible as long as these are managed by the Defense/Examination Chair.  If you have a defense/examination coming up and would like to discuss an issue related to the process, please discuss this with your Defense/Examination Chair with as much

advance notice as possible to allow this person to discuss with relevant others if necessary (e.g. Department Chair, Grad Studies) and/or to arrange the modifications.

Look for "Area-specific qualifying exam" below CONTENTS for area-specific guidance if it exists.

# Area-specific Qualifying Exam NACS PHD

In NACS, the qualifying exam is done after students have successfully written and defended the proposal for their PhD thesis.† The qualifying exam must be successfully passed by the end of the semester 5 of the PhD program (or the end of semester 7 for students who entered the program without a Masters).

The specific procedures and requirements for the NACS qualifying exam are discussed below.

## Objectives and Format

The overall objective of the qualifying examination process is to assess the student's knowledge of their subject area and related fields. To this end, the NACS qualifying exam comprises:

1. a written component in which the student creates an application for an NSERC Discovery grant,

2. an oral component in which the student answers questions based on the application, and

3. an evaluation of the student's ability and promise as a researcher.

This format has a number of advantages. First, it will allow students to spend time critically appraising the literature in their research area. Second, it will provide students with experience summarizing information and developing hypotheses based on the primary literature and previous findings from their laboratory work. Third, it will give them experience in the preparation of a broad-based proposal (i.e., one with short- and long-term objectives) with a defined format, budget and deadline.

It is important that the research program proposed in the application does not overlap with the research program proposed for the PhD thesis; however, it may continue and extend the work of the PhD thesis. Instead it is meant to describe a program of research that will be conducted over a 5-year period after completion of the PhD program. Other planned research to be conducted prior to PhD completion, especially research planned in collaboration with others, should also be excluded from the application. There is a section in the NSERC proposal that allows candidates to describe their past progress, where it is permissible to talk about past research, thesis research and any other research that is currently underway or planned. In general, this past progress section should be no more than 1 page long, and the bulk of the proposal should involve a 5 year plan for new (future) research that represents the candidate's own independent work. Because the qualifying paper is an exam, it is not permissible to create it in collaboration/consultation with anyone else.

Successful completion of the qualifying exam requires a satisfactory evaluation by the examination committee on all three components: written, oral, and research evaluation.

# Area-specific Qualifying Exam: Committee Creation NACS PHD

The Qualifying Examination Committee cannot be established until the PhD Advisory Committee is in place and on record with the Graduate Program Assistant. The Qualifying Exam Committee consists of five members:

- The committee chair, who is responsible for scheduling all exam related meetings, and facilitating each meeting. For NACS qualifying exams, the chair is typically the faculty member serving as the NACS Area Graduate Representative.

- At most two members of the PhD Advisory Committee

- Additional members from the regular graduate faculty on campus, so that the total number of committee member including the chair is five.

- Normally, at least one of the qualifying examination committee members must be from outside the department in which the student is registered. That person may be a member of the advisory committee.

To form the committee, the student’s advisor will email the proposed committee members to the Graduate Program Assistant and then, if there are no problems, to the Department Chair for final approval. Once approved, the advisor will acquire a Qualifying Examination Committee Appointment Form from the Graduate Program Assistant, complete the form, and resubmit to the Graduate Program Assistant. At this point, and not before, the Qualifying Examination process can start. The Graduate Program Assistant will pass instructions to the Chair of the Qualifying Examination on how to proceed.

# Area-specific Qualifying Exam: Written Component NACS PHD

For this exam, candidates will be required to do Notice of Intent (NOI) and a full application (Form 101, including free form sections) for an NSERC Discovery grant. The NACS area has created templates for the NOI and Form 101 (links below).†You will also need to provide the four free-form sections listed below.

a) NACS template for Notice of Intent

b) NACS Exam Form

- Budget Justification

- Highly Qualified Personnel Training Plan

- Research Proposal

- Reference List

NSERC has very strict and detailed instructions for the creation of the proposal and notice of intent, including specific formatting instructions for free-form sections. These instructions are detailed on the NSERC website. In addition to reading these instructions carefully, it is important to learn how to write a good application, and to identify the merit indicators that NSERC uses to evaluate applications:

## PhD Qualifying Exam: Timeline

1. The qualifying exam committee must first be formed. The names and signatures of the committee members must be documented on a form made available by the graduate secretary

2. Next there is a preliminary meeting (Meeting #1) at which the committee and the candidate discuss the overall plan, the scope of the proposal, and possible directions for the program of research.

3. Based on the discussion at Meeting #1, the candidate will compose a Notice of Intent for the NSERC Discovery Grant (NOI), which summarizes the research to be proposed. Students will have 2 weeks to complete their NOI and send it to the qualifying exam committee.

4. The committee will be given 1 week to read the NOI, and then a meeting will be scheduled (Meeting #2). At this meeting, the committee will give the candidate feedback about the notice of intent. It is important to note that Meeting #2 is the last time that the student will be able to get feedback and guidance from the committee on their proposal and plan of research; it is permissible, though, for candidates to ask subsequent questions of the Chair if they are unclear about procedure.

5. After Meeting #2, candidates work independently to create a full Discovery grant application (Form 101, including free-form sections). Students will have 4 weeks to complete their Form 101 and send it to the qualifying exam committee. For guidance, students are encouraged to read past successful NSERC applications provided by faculty.

6. The oral examination will occur within 2 weeks from submission of Form 101. Within these two weeks, the committee will send their feedback to the committee chair. Most importantly, each committee member will provide a judgment of whether the written component was completed satisfactorily, as well as a basis for this judgment. The committee chair will then collate the judgments to make a decision about whether the written component was completed successfully or not. On the day of the oral exam, the chair announces the decision to the student and the committee, and provides the detailed comments of committee members. There are several possible outcomes:

- If the entire committee (or all but one member) judges the written component to be satisfactory, then the oral examination will proceed.

- If two or more members judge that the written component was not completed satisfactorily, then the student fails and the oral examination will not proceed. However, students will be given a second attempt to pass the written exam. The date for the second attempt will be negotiated with the student, but it should normally begin within 6 months of the first attempt. The second attempt begins at stage 2 of the procedure listed above, although the research program to be proposed will most likely be an improved version of the failed program rather than a completely different program.

- If the student is on their second attempt to pass the exam, and the revised written component is deemed unsatisfactory, then the exam is a failure. At this time, the student will be asked to leave the program.

# Area-specific Qualifying Exam: Oral Examination NACS PHD

The oral exam will constitute Meeting #3 between the candidate and the committee. Unlike a thesis defense, the qualifying exam oral does not begin with a student presentation. The oral, normally 1-2 hours in duration, is instead reserved for questions and answers between the committee and student.† During this time, the candidate will be given an opportunity to demonstrate an understanding of the literature, the rationale for the hypotheses, the expected results, the pitfalls of the proposed research, an understanding of alternative approaches to the question and analysis of the results, and an ability to communicate the significance of the findings. At the end of the question period, the candidate will be asked to step out of the room while the committee deliberates. During the deliberation process, each committee member provides an independent judgment of whether the oral component was completed satisfactorily (note: abstention = unsatisfactory). If all, or all but one, agree that the oral was satisfactory, then the student passes the oral component of the exam.

- If the oral is judged as unsatisfactory by two or more members, then the student fails the exam. However, students will be given a second attempt to pass the oral component. The date for the second oral will be negotiated with the student, but it should normally be within 4 weeks of the first oral. The second oral will be based on the written component that has already been deemed satisfactory by the committee.

- If the second oral is judged as unsatisfactory by two or more members, then the student fails the exam. At this time, the student will be asked to leave the program.

# Area-specific Qualifying Exam: Evaluation of the Student's Ability and Promise as a Researcher

Once the student has passed the written and oral components of the qualifying exam, the committee will evaluate the student's ability and promise as a researcher (note: the thesis advisory committee has already approved the thesis proposal). This evaluation is made during the deliberations following the oral exam. To aid this evaluation, the committee will be presented with a report (Qualifying Examination Research Evaluation) written in advance by the candidate's advisor, and a research portfolio sent in advance by the candidate to the Chair of the Qualifying Exam Committee. This portfolio should contain an up-to-date curriculum vitae, as well as electronic copies of publications, conference presentations, or other significant research contributions by the student. These documents are used during the deliberations following the oral exam to assess if the student has the potential to complete a PhD level research project. If all, or all but one, agree that the student has potential to complete a PhD level research project, then the student passes the qualifying exam. If not, then the student will be asked to leave the program. After deliberations, the candidate will be called into the room and informed of whether they passed the exam.

Read more about the <a href=https://www.uoguelph.ca/registrar/calendars/graduate/current/degreg/degreg-phd-qualexam.shtml">Qualifying examination requirements in the University Graduate Calendar</a>.

# Thesis Proposal

See Chapter IV, heading Doctor of Philosophy, subheading Program Regulations

Department of Psychology Form: Approval of PhD Thesis Proposal

Look for "Area-specific thesis proposal" below CONTENTS for area-specific guidance if it exists.

# Area-specific thesis proposal PHD NACS

## Thesis Proposal Evaluation Criteria

Every NACS graduate student must have their Thesis Proposal approved by their advisory committee before the end of their semester 3 (5 for students without a Masters), and a thesis proposal approval form submitted to the Graduate Secretary. Approval of the proposal involves submitting a written proposal to the Advisory Committee for review (allow at least two weeks for the review of each draft), and once deemed suitable, presenting the proposal orally at a committee meeting.

The written component of the thesis proposal contains the following content:

1) Introduction

2) Method (including proposed analyses)

3) Current Results

4) Proposed Results

5) Implications

All proposals will be reviewed against the following criteria.

### Introduction

- Comprehensively summarizes and references the relevant literature as it pertains to the thesis topic.

- Critically points out the most relevant and important theories and empirical evidence to establish a clear purpose and contribution for the thesis.

- Demonstrates an accurate and deep understanding of the research literature (the authors/ theorists would be in full agreement with their ideas or findings being summarized in this way).

- Hypotheses are well substantiated and clearly follow from the literature review.

### Method (including proposed analyses)

- Research design is clearly articulated and follows logically from the literature review.

- The method allows for the optimal testing of the research hypotheses.

- All relevant measures are described in detail and appropriate based on the subject matter of the thesis.

- Proposed analyses are described in detail.

### Current Results

- Any data that have already been collected and analyzed, and that the student proposes to include in the final thesis, are reported.

- Results are conveyed through main text and tables/figures, and appropriate statistical analyses are reported.

### Proposed Results

- Predicted results are also presented (in tables or figures) to demonstrate a mastery of the underlying theory and proposed analyses.

- Strengths and weaknesses of the research design and measurement are clearly articulated.

### Implications

- The implications, and importance, of the current or proposed findings for theory and practice are described in detail for the topic domain.

### Organization, Clarity, and Format

- Proposal is structured with a clear organization.

- All aspects of the proposal are explored in a highly systematic and disciplined manner.

- Appropriate elements of style are consistently used throughout (e.g., transition sentences between paragraphs, appropriate headings).

- Sentences are clear and concise.

- There are no grammatical errors.

- There is consistent and accurate use of APA style.

## Advisory Committee Approval of the Thesis and Submission to Examination Committee

See Chapter IV, heading Doctor of Philosophy, subheading Thesis

See Chapter IV, heading Doctor of Philosophy, subheading Program Regulations

Once you are close to having a draft of your thesis prepared, you should follow the procedures below.

1. When the PhD candidate's Advisor has deemed that the candidate's full thesis draft is satisfactory, the Advisor will provide an email to the student indicating that the thesis is satisfactory and ready for submission to the Advisory Committee members for evaluation. At this point:

a. The advisor will notify the Graduate Program Assistant that the thesis is being evaluated by the advisory committee, allowing the Graduate Program Assistant to prepare necessary forms and provide additional instructions to all.
b. The advisor will begin the process of forming the examination committee (see detailed instructions below in the section titled PhD Examination Committee Creation). Note that the student must NOT have any contact with the External Examiner.
c. The student shall provide an electronic copy of the thesis to each member of the Advisory Committee and request email receipt to ensure that the Advisory committee members have received the thesis in a timely fashion. A minimum of two weeks will be allowed for Advisory Committee members to evaluate the thesis.
d. The student will review and implement the Electronic Formatting Requirements for theses provided on the Graduate & Postdoctoral Studies website.

2. When an Advisory Committee member has read the draft of the thesis, they provide feedback on the thesis and indicate whether or not the thesis is ready for defense. This feedback should also indicate whether edits are requested pre-defense or post. Normally, this feedback includes a number of changes designed to improve the thesis prior to the defense. The student then considers the recommendations, and, in consultation with the Advisor, makes changes specified by the committee members. Note that these changes may be done quickly or take a substantial amount of time (e.g., days or weeks). Consequently, students should remember to budget sufficient time for these revisions.

3. If necessary, the student will submit an electronic copy of the corrected thesis to each Advisory Committee member. The Advisory Committee members will typically review the revised draft within two weeks.

4. Following this, the Advisory Committee members will indicate whether the thesis is ready for defense by signing the Summary of Advice to Student form (a Graduate & Postdoctoral Studies form) and submitting it to the Graduate Program Assistant (who makes a copy for the student). All members should sign the same Summary of Advice form.

5. Once required edits have been addressed as per the committee members' feedback, the student should immediately send an electronic copy (PDF) of the thesis to the Graduate Program Assistant for distribution to the Final Oral Examination Committee members. If any member requires a hard copy, the student should also provide hard copies to the Graduate Program Assistant. The External Examiner must have a copy of the final thesis at least one month prior to the date of the Final Oral Examination.

6. Regardless of the recommendation of the PhD Advisory Committee, a student may submit a request for an examination. Requesting an examination without the approval of all of the members of the PhD Advisory committee is not recommended.

Also see the detailed guidelines on Graduate and Postdoctoral Studies website.

Look for "Area-specific approval of thesis and submission to committee" below CONTENTS for area-specific guidance if it exists.

# Area-specific Advisory Committee Approval of the Thesis and Submission to Examination Committee

Once you are close to having a draft of your thesis prepared, you should follow the procedures below. You many also find the guidelines prepared by Graduate & Postdoctoral Studies to be a useful complement to the instructions below.

1. When the PhD candidate's Advisor has deemed that the candidate's thesis draft is satisfactory, the Advisor will provide an email to the student indicating that the thesis is satisfactory and ready for submission to the Advisory Committee members for evaluation. At this point:

a. The advisor will notify the Graduate Program Assistant that the thesis is being evaluated by the advisory committee, allowing the Graduate Program Assistant to prepare necessary forms and provide additional instructions to all.

b. The advisor will begin the process of forming the examination committee (see detailed instructions below in the section titled PhD Examination Committee Creation). Note that the student must NOT have any contact with the External Examiner.

c. The student shall provide an electronic copy of the thesis to each member of the Advisory Committee and request email receipt to ensure that the Advisory committee members have received the thesis in a timely fashion. A minimum of two weeks will be allowed for Advisory Committee members to evaluate the thesis.

d. The student will review and implement the Electronic Formatting Requirements for theses provided on the Graduate & Postdoctoral Studies website.

2. When an Advisory Committee member has read the draft of the thesis, he/she is required to complete an Evaluation of Draft of Thesis form (a departmental form prepared by and obtained from the Graduate Program Assistant) to provide feedback on the thesis and indicate whether or not the thesis is ready for defense. This form should also indicate whether edits are requested pre-defense or post. The Evaluation of Draft of Thesis form will be submitted to the student with a copy to the candidate's Advisor. Normally, this feedback includes a number of changes designed to improve the thesis prior to the defense. The student then considers the recommendations in the evaluation forms, and, in consultation with the Advisor, makes changes specified by the committee members. Note that these changes may be done quickly or take a substantial amount of time (e.g., days or weeks). Consequently, students should remember to budget sufficient time for these revisions.

3. If necessary, the student will submit an electronic copy of the corrected thesis to each Advisory Committee member. The Advisory Committee members will typically review the revised draft within two weeks.

4. Following this, the Advisory Committee members will indicate whether the thesis is ready for defense by signing the Summary of Advice to Student form (a Graduate & Postdoctoral Studies form) and submitting it to the Graduate Program Assistant (who makes a copy for the student). All members should sign the same Summary of Advice form.

5. Once required edits have been addressed as per the committee members' Evaluation of Draft of Thesis forms, the student should immediately send an electronic copy (PDF) of the thesis to the Graduate Program Assistant for distribution to the Final Oral Examination Committee members. If any member requires a hard copy, the student should also provide hard copies to the Graduate Program

Assistant. The External Examiner must have a copy of the final thesis at least 1 month prior to the date of the Final Oral Examination.

6. Regardless of the recommendation of the PhD Advisory Committee, a student may submit a request for an examination. Requesting an examination without the approval of all of the members of the PhD Advisory committee is not recommended.

# Thesis Preparation

See Chapter IV, heading Doctor of Philosophy, subheading Thesis

See Chapter IV, heading Doctor of Philosophy, subheading Program Regulations

Look for "Area-specific thesis preparation" below CONTENTS for area-specific guidance if it exists.

# Thesis Public Lecture and Examination

See Chapter IV, heading Doctor of Philosophy, subheading Thesis

See Chapter IV, heading Doctor of Philosophy, subheading Program Regulations

Maximum Duration of Oral Examination
PhD Examination: 3.5 hours

## PhD Examination Procedure

Introduction by the Chair - 5 minutes
Presentation of research findings/scholarly work by candidate - 30 minutes (maximum)
Public Question Period - Audience - 10 minutes
Break - 5 minutes (members of the public are free to leave)
Examination Period (questions only from examiners) - 1 hour and 40 minutes

## The Chair

The chair of the examination committee is the official representative of the Assistant Vice- President (Graduate Studies). The chair serves to administer the examination according to the approved format of the program. The chair does not serve as an additional examiner.

It is the responsibility of the Chair to ensure that the oral examination is conducted in a professional manner. The Chair must ensure that proper forms from the Office of Graduate Studies are available and duly completed and signed by the Examination Committee. The Chair should ensure that adequate time is allotted to the candidate for presentation of research findings, and to the examiners for questions. The details on the time allocation to the candidate and examiners are given in the following paragraphs. It is also the responsibility of the Chair to ensure that examiners should adhere to the allocated time.

In unforeseen circumstances where a Committee member is unable to attend the examination (e.g., due to sickness) either in person or by video/teleconference, the Chair will attempt to receive questions to

ask on behalf of the absent member, to be answered by the student to the satisfaction of the examiners present. If this absent member is the External Examiner of a PhD thesis examination, and the written thesis Appraisal and/or questions to ask have not been received, the examination should be postponed.

If during the examination the behaviour of either the candidate or the examiner(s) is unprofessional, the Chair should provide a warning. If the unprofessional behaviour continues, the Chair should stop the examination and report to the Graduate Coordinator.

The Chair should ensure recommendations for revision of the thesis are completed, and should withhold their endorsement of the examination (through signing the Recommendation Form) until such time.

## Role of the Examiners

The examiners have the responsibility to review the thesis as outlined in the University Guidelines for thesis evaluation. If an examiner feels that there is a major problem with the thesis, the examiner should inform the candidate in writing with a confidential copy only to the advisor and Graduate Coordinator. If the candidate and the examiner cannot resolve the problem before the oral examination, the Graduate Coordinator will act as facilitator. If there is no agreement, the examination can go forward at the student's request, or postponed on the advice of the Graduate Coordinator.

## Ordering of Questions by the Examination Committee:

There will be two rounds of questions by the Committee. The questioning by the Committee will be in the following order:

1) External Examiner
2) Member of the Graduate Faculty (not on the Advisory Committee)
3) Member of the Advisory Committee
4) Advisor or second member of the Advisory Committee

Suggested time allotted to examination committee members:
External Examiner (Round 1: 25 minutes, Round 2: 10 minutes)
Graduate Faculty (Round 1: 20 minutes, Round 2: 10 minutes)
Advisory Committee Member (Round 1: 20 minutes, Round 2: 10 minutes)
Advisor/Advisory Committee Member (Round 1: 20 minutes, Round 2: 10 minutes)

Deliberation (in camera) - 35 minutes

## Evaluation of Thesis

As stated in the graduate calendar, “The thesis is expected to be a significant contribution to knowledge in its field and the candidate must indicate in what ways it is a contribution. The thesis must demonstrate mature scholarship and critical judgement on the part of the candidate and it must indicate an ability to express oneself in a satisfactory literary style. Approval of the thesis is taken to imply that it is judged to be sufficiently meritorious to warrant publication in reputable scholarly media in the field.” The thesis should strive to evince critical and creative thinking skills, literacy skills and communication skills and a global understanding. Theses and student must be professional and adhere to the highest ethical standards. Evaluation of the thesis and oral examination will be done holistically. Numeric grades are not required; instead the work is reported as either satisfactory or unsatisfactory.

The candidate is deemed to have passed if a simple majority of Examination Committee members vote to pass the student. An abstention is regarded as a negative vote. If the Examination Committee decides thesis and oral exam are unsatisfactory, the candidate may be given the opportunity for a

second attempt. A second unsatisfactory report constitutes a recommendation to the Board of Graduate Studies that the student be asked to withdraw.

In addition to determining whether the candidate passes the exam, the Examination Committee members will also discuss the recommended and required changes to the thesis. After each committee member recommends changes, the committee will come to a consensus about which changes the student is required to make. In the rare event of a disagreement, the Chair will decide if a requested change by a committee member can be overruled.

Following deliberations of the committee, the Examination Chair calls the student back to the examination room and verbally informs the candidate of the outcome of the Examination. If the defense is successful, changes will frequently be required. These changes may be minor or substantial.

Students should be prepared to make changes based on feedback received during the defense and must allocate sufficient time before final submission for this process. As noted above, those changes should be submitted to the Examination Chair for approval.

Following completion of the thesis revisions, the Examination Chair then submits the signed forms (i.e., Certificate of Approval, Report of the Examination Committee) to the Graduate Program Assistant, their Examination Chair report, and the Report of the External Examiner. The Graduate Secretary then contacts the student to complete graduation paperwork (as applicable) with the Department Chair. Once completed the student is responsible for the delivery of this paperwork along with the approved copies (2) of the thesis in its final form (following revisions) to Graduate Program Services.

Look for "Area-specific thesis public lecture and examination" below CONTENTS for area-specific guidance if it exists.

# Area-specific thesis public lecture and examination PHD NACS

The following linked document was prepared by the Assistant Vice-President (Graduate Studies and Program Quality Assurance) in June 2016 and provides guidelines detailing the procedures that should be followed during the PhD Thesis Public Lecture and Examination. If this link does not work, please contact the faculty member serving as the NACS Area Graduate Representative.

**Source URL:**https://www.uoguelph.ca/psychology/book-page/neuroscience-and-applied-cognitive-science-psychology-graduate-handbook-phd