

PH.D. COMPREHENSIVE EXAM GUIDELINES FOR STUDENTS AND EXAMINERS

The Ph.D. Comprehensive Examination is a requirement for all Ph.D. students. Given the importance of this exam and the consequences of failure, the exam is normally held 12-18 months from the start date of the program. It **MUST be completed by the end of Ph.D. 3.**

PH.D. COMPREHENSIVE EXAM: REVISED POLICY AND PROCEDURES

A Ph.D. thesis requires a high degree of scholarship, both in (i) the acquisition of a comprehensive knowledge of the scientific literature, and (ii) the development of a set of experimental skills that include both technical expertise and the understanding of rigorous experimental design. The comprehensive exam is an important step in the candidate's academic program that must be considered in equal parts a learning exercise and an evaluative process that will:

- Teach the student to organize a large and diffuse body of literature.
- Ensure that the student has a comprehensive knowledge of the literature directly and indirectly related to their thesis work.
- Encourage the student to plan the necessary steps for the completion of his/her program.
- Help identify all potential problems and concerns at an early stage of the student's research.

PART A: PROJECT PROPOSAL:

The written thesis proposal must state the hypothesis being tested, extensively review the relevant background literature and summarize the methods that will be used to address the research question. The proposal should be approximately 20 pages double-spaced (excluding figures and references). The recommended format is:

1. Summary and statement of the problem (1 page)
2. Comprehensive literature survey covering a broad range of topics related to the proposed thesis work (not more than 12 pages). This should include, where applicable, both basic and clinical aspects of the literature.
3. Rationale for proposed research, hypothesis and specific aims (1 page)
4. Brief description of methods for each specific aim, including rationale for the choice of methods when alternatives exist, possible problems that may be encountered and their solutions, analysis and interpretation of data, etc. (5 pages)
5. Summary of results to date (specific items may be included in methods, if preferable)
6. Short conclusion and statement of expected contributions to original knowledge (1 page)
7. Reference List.

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The student is to contact the Graduate Program Coordinator at least ONE MONTH in advance with the scheduled date and time of their Comprehensive Exam; the student must also provide their External Representative and their Student Representative at this time. The student is to then email the thesis proposal to Jennifer Rondeau at gradstudies.physiology@mcgill.ca AT LEAST TWO WEEKS BEFORE THE ORAL EXAM, which will then be forwarded to the Committee along with a reminder.

PART B: COMPREHENSIVE EXAM FORMAT:

The examination committee will consist of the candidate's supervisory committee, and an additional member (an external) who is an expert in the field (it can be anyone you choose who is expert enough in your field of research-usually outside the department), a representative of the GSAAC who will serve to ensure that the examination is conducted in an orderly and constructive way, and a Graduate student rep who is there for student support.

The candidate's supervisor may attend the oral exam as an observer but will not speak during the formal presentation or question period.

The examination will begin with a formal presentation of not more than 30 minutes reviewing the background and rationale for the proposed study, specific hypotheses and objectives, methodology, results obtained to date and future directions.

The candidate will then field questions from the examining committee directly and indirectly related to the proposed area of research, as well as the significance of the proposed research project. The candidate will first respond to a round of questions designed to assess their knowledge of fundamental concepts and the background literature and capacity for critical analysis, followed by additional round(s) focused on experimental design and method and possible alternative approaches.

At the end of the exam, the candidate and the student rep will be asked to leave and the examining committee will meet in a closed session to deliberate and make judgment. The decisions of the examining committee will then be communicated to the student and noted on the report form. The supervisor may remain for the closed session but will act only as a resource, allowing the committee to make an informed decision of Satisfactory, Conditional or Unsatisfactory.

The entire exam should last approximately 2-2.5 hours (please reserve at least 2.5 hours).

GRADING: A PASSING GRADE IS 80%

Satisfactory

If oral and written components of the exam are rated as *Satisfactory*, the student will be deemed to have satisfactorily completed all components of the exam and will receive a "Pass" grade. The next meeting will be the annual Progress Meeting to be scheduled within one year of this meeting.

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Conditional

If one of the components is rated as less than *Satisfactory*, the student will be graded as “Incomplete” and be asked to take appropriate corrective measures within three (3) months (recommended) however, the student may have up until 6 months if need be. The committee may also impose one or more conditions that must be fulfilled prior to the next meeting. If the student repeats the component to the satisfaction of the committee, the student will be awarded a “Pass” and will continue in the program. Otherwise, the student will be awarded a “Fail” and must follow the procedure in the “Unsatisfactory” section below.

Unsatisfactory

If both components are rated as *Unsatisfactory*, the student will be failed and be required to redo the entire exam within 4-6 months. In the event that the repeat comprehensive is judged to have failed, the student will receive a grade of F and will be withdrawn from the university.

COMPREHENSIVE EXAMINATION TIMING

Given the importance of the Ph.D. Comprehensive Exam and the consequences of failure, the exam will normally be held between 12 to 18 months from the start date of the program **to be completed by the end of Ph.D. 3.**

IMPORTANT NOTE:

It is the responsibility of the student to inform him/herself of the Exam Policy and Procedures and deadlines. Failure to comply can lead to expulsion from the program, unless strong justification is provided and confirmed in writing by the Supervisor. Please refer to the Ph.D. Comprehensives Policy at: <https://mcgill.ca/study/2019-2020/university-regulations-and-resources/graduate/gps-gi-phd-comprehensives-policy#topic-77E18489C7304DFEB8080CD83C8818A1>.

McGill University values academic integrity. It is therefore important that all students understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures (see www.mcgill.ca/integrity for more information).