

## Interfaculty Graduate Program Biological and Biomedical Engineering Ph.D. Thesis Proposal and Comprehensive Exam Policy and Procedures

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### Timing

Given the importance of the Ph.D. Thesis Proposal and Comprehensive Exam and the consequences of failure, the exam will normally be held no later than 6 months following the successful completion of the Ph.D. Comprehensive Preparation Meeting.

Students must be registered for the course BBME 701 in the term during which the Ph.D. Thesis Proposal and Comprehensive Exam is first attempted. Students not registered for BBME 701 will not be permitted to take the exam.

### Thesis Proposal and Comprehensive Exam Format

The Ph.D. Thesis Proposal and Comprehensive Exam is held with the student's Ph.D. Advisory Committee and consists of the following three components:

**Part A: Thesis Proposal:** The student must present a written Thesis Proposal prepared according to the guidelines in Appendix A and circulate it to the Committee members and [info.bbme@mcgill.ca](mailto:info.bbme@mcgill.ca), one week prior to the meeting unless otherwise specified by the GPC. Failure to circulate the proposal on time may impact the student's status in the program. Additional details may be found here: [Requirements for completing a PhD Degree](#).

**Part B: Thesis Proposal Presentation:** The student makes an oral presentation of their Thesis Proposal to the Committee and defends it by responding to the Committee's questions directly related to the background, progress, and proposed work of direct relevance to their project. The presentation should be no longer than 20 minutes, not including questions. Normally, the question period directly related to the proposal should last about 45 minutes.

**Part C: General Competence:** Throughout the Thesis Proposal presentation and the subsequent question and answer period, the student must demonstrate a general knowledge and competence in the relevant areas of Biomedical Engineering, and tools necessary for the project. In addition, following the Thesis Proposal presentation and defense, the Committee will question the student to determine general competence in the areas defined during previous meetings. This general competence part of the exam is expected to last an additional 45 minutes.

### Procedure

1. Prior to the start of the meeting, the Committee will meet without the student to review the student's progress with the Supervisor, flag any areas of concern, and discuss the written Thesis Proposal.
2. The student will make an oral presentation of the Thesis Proposal and answer questions from the Committee members. The Committee should reserve questioning till the end of the student's presentation except when important clarifications are required.
3. The student will then withdraw and the Committee will determine:
  - a. The meeting outcome (as defined below)
  - b. Identify any areas of concern and suggest corrective action
  - c. Determine any other advice to be provided to the student
  - d. Based on the outcome, set the date for the next meeting

## Thesis Proposal and Comprehensive Exam Outcomes

Each component of the exam will be rated as *Satisfactory*, *Conditional*, or *Unsatisfactory*. The overall result of the Ph.D. Thesis Proposal and Comprehensive Exam is determined as follows:

### Satisfactory

If all three components are rated as Satisfactory, the student will be deemed to have satisfactorily completed all three components and will receive a “Pass” grade on the BBME 701 course. The next meeting will be the Ph.D. Thesis Progress Meeting to be scheduled within one year of this meeting.

### Conditional

If one or more of the components is rated as less than *Satisfactory* and no more than one component is *Unsatisfactory*, the student will be graded as “Conditional”. The Committee will impose one or more conditions and a timeline for the student to fulfill them (normally no more than 3 months). If the student does so to the satisfaction of the Committee, the student will be awarded a “Satisfactory” and will continue in the Program. If not, the meeting outcome will be deemed “Unsatisfactory” and the procedures outlined in the following section will be followed.

### Unsatisfactory

If two or more components of the exam are rated as *Unsatisfactory*, the overall meeting outcome will be graded as “Unsatisfactory”. In keeping with GPS regulations, the following consequences will result.

In the case where a student is unsuccessful at the first attempt of the exam:

1. A grade of HH, “In progress”, will be recorded for the BBME 701 course.
2. The student will be required to repeat the entire exam at a time determined by the Committee and in accordance with our [unsatisfactory guidelines](#).
3. A student who is successful in the second attempt will be deemed to have passed the exam, and a grade of “P” will replace the HH grade for the BBME 701 course.

In the case where a student is **unsuccessful at the second attempt** of the exam:

1. The student will be deemed to have failed the Ph.D. Thesis Proposal and Comprehensive Exam.
2. A grade of “F” will be entered for the BBME 701 course replacing the previously recorded HH. The student will be required to withdraw from the Program.

## Reporting

The Chair's Rep will prepare a summary of the Committee's findings and recommendations.

The student will be asked to return, whereupon the Chair's Rep will communicate the Committee's evaluation to the student and answer any questions. The Committee members and student will then sign the Ph.D. Thesis Proposal and Comprehensive Exam form.

Following the meeting, the Supervisor will prepare and circulate detailed minutes of the meeting documenting the Committee's recommendations and advice to the student. This should be done no later than one week after the meeting. Once approved by the Committee members, the minutes will be added to the student's file, attached to the meeting form. A copy will be provided to the student, Committee members and the Graduate Program Director.

## Important Note:

It is the responsibility of the student to inform him/herself of the Ph.D. Thesis Proposal and Comprehensive 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.

The methods adopted for examination and evaluation and the areas to be examined in Comprehensive Examinations are specified by Departmental regulations and are in agreement with the Graduate Studies guidelines approved by the Dean of Graduate and Postdoctoral Studies, McGill University

# APPENDIX A

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The Thesis Proposal should take the form of the research module of a CIHR proposal and should follow the formatting and other instructions given on their web site.

The research proposal should include the following sections:

## **1. Summary of research proposal - One page numbered Page 1**

Summarize the objective(s), hypothesis and research plan. A maximum of one page may be used.

## **2. Summary of progress - One page numbered Page 2**

Do not include references, tables, charts, figures or photographs. Summarize progress towards the Thesis and/or summarize previous work relevant to this proposal.

## **3. Response to previous reviews - Attach up to two pages numbered Page 3a and 3b**

This section should only be used submitting a revised Thesis Proposal following a Conditional or Unsatisfactory rating. Students should use these pages to respond to previous committee comments and indicate what corrective actions have been taken.

## **4. Research proposal - numbered Page 4a, 4b, 4c etc (10 pages)**

The research proposal should be clear and concise. Page limits do not include references, tables, charts, figures and photographs. Legends should be succinct. Detailed descriptions of methods and discussion of results should be included in the body of the proposal. They should not be in the legends nor included as an appendix. Questionnaires and consent forms may be attached as appendices, where applicable.

### **In the research, student must explain:**

- a) What they want to do (central hypothesis, research question, specific objectives)
- b) Why this is a reasonable thing to do (review of previous work done on the subject matter, rationale)
- c) Why this is important (new knowledge to be obtained, improvements to health which will result)
- d) How they are going to do it (work plan, timelines, analysis and interpretation of results, pitfalls, ways around the pitfalls, alternatives)
- e) Why they should do it (relevant prior experience and skills, collaborators for technical gaps, preliminary data showing feasibility)

## **5 Appendices**

Where appropriate, the student may append documents such as thesis chapters or journal articles in support of their proposal. A maximum of five such documents may be appended.

## How to prepare and format the Thesis Proposal:

Please follow these guidelines for formatting each page of the Thesis Proposal.

- At the top of each page, indicate your name, the project title, and the section title (e.g. Summary of Research Proposal).
- At the bottom of each page clearly indicate the page number (e.g., 1, 2, 3a, 3b, 4a, 4b, etc).
- A minimum margin of 2 cm (3/4 inch) around the page is mandatory.
- Observe page limitations, additional pages may NOT be added unless specified.
- Use only letter size (21.25 X 27.5 cm / 8.5" X 11") for the proposal and all attachments.
- Supporting documents should be reduced if the originals are larger than letter size.
- No supplementary audio or video material will be accepted.
- A font size of 12 point, black color. Six lines per inch. No condensed type or spacing.