

Department of Biochemistry and Biomedical Sciences

Guidelines for the PhD Candidacy Examination

The PhD Candidacy Examination is designed to test students for breadth of knowledge and the ability to integrate ideas. The PhD Candidacy Examination typically takes place at 12 months after the student has begun PhD studies, with an upper limit of 20 months. Candidates must present a thesis that embodies the results of original research and high scholarship. This thesis must be defended in a Final Oral Examination as outlined in the School of Graduate Studies Regulations for the Degree Doctor of Philosophy.

The PhD Candidacy Examination has three purposes. First, it tests the student's preparation for PhD level research by determining whether they have mastered the theoretical background to their fields. Students will therefore be expected to have researched and read the publications that form the foundation of their field as well as the necessary background for the technology they intend to employ. Secondly, it will provide independent assessment of performance to-date and the student's ability to execute the longer-term strategy of the proposed PhD research project. Thirdly, this exam will help reveal the student's strengths and weaknesses. While questioning in the exam can be expected to be rigorous, students are not expected to have the correct answers for everything. A student coming out of this examination therefore will have had an independent evaluation of his/her project and background knowledge, and will have been made aware of areas in which he/she needs improvement. This last point may include the recommendation of specific course work.

PROCEDURE

Students will complete a proposal using the format of a CIHR operating grant. This written proposal must represent the student's own original work; the inevitable input of the supervisor notwithstanding, McMaster University policies on Academic Ethics and Academic Dishonesty apply.

The aim of this proposal is to describe the theoretical background to the project and outline the goals of the research. This document should illustrate that the student's goals have sufficient depth to form the basis of a PhD project and must clearly demonstrate the progress that the student has made during the first 12-18 months as a PhD graduate student. This proposal is expected to be a major exercise in writing and should describe novel research in a concise and informative manner. It must be comprehensible to faculty members who are not necessarily experts in the field. This proposal should include an abstract of not more than 300 words, an introduction to the student's field and basic research direction, a summary of progress and a detailed discussion of the research to be carried out towards a PhD, including hypothesis, rationale and aims. It is important to explain and justify the approach being taken and include a projected time line for the completion of each goal.

There is an absolute length limitation of 20 pages (double-spaced, 12-point font, not including figures or references). The first 2-3 pages should introduce the subject of the student's thesis. Following the introduction there should be a 2-3 page summary of the student's progress. The remaining 14-16 pages should explain the proposed research. Students may subdivide each section in whatever manner they

deem to be the most readily digested by the examining committee. References must conform to accepted practices (e.g., http://mibr.asm.org/site/misc/journal-ita_org.xhtml#02).

Preparation time for this proposal is limited. Students will be assigned a date for their exam 4-5 weeks in advance of their exam. **The report must be submitted to the committee members at least one week prior to the exam.**

EXAMINATION

The student will give a 15-20 minute presentation outlining the major points of his/her proposal, including accomplishments to-date and the research proposed for the PhD. The exam will then consist of two rounds of questioning from each of the voting Committee members, and can deal with any aspects of the presentation and proposal. The total time for the questioning will not exceed two hours.

This committee will consist of members of the candidate's supervisory committee, as well as the examination chair, who will be a member of the BBS Graduate Curriculum and Recruitment Committee. The supervisor will verify the originality of the proposal at the outset of the examination. The Chair will ensure that the exam is conducted in a fair manner in keeping with the objective of this document. In the event that a student is at a loss to answer a particular question, the Chair may ask the examiner for clarification or to move on to a more fruitful line of questioning.

The outcome of the exam will be pass with distinction, pass, or fail. Failure of the exam will normally result in the candidate repeating the exam within six weeks of the initial exam and prior to the maximum 24-month period. Two failures will lead to withdrawal from the PhD program.