

PHD Comprehensive Examination

Option 1 - Research Proposal Format

After the Comprehensive Examination Committee membership and a date for initiation of the process have been established, the student will have one week to perform preliminary research and will draft a two page letter of intent (double-spaced, type-written, single-sided pages with 12 point font and 1 inch margins; including cited literature) on the exact nature of the proposal. This letter of intent shall be submitted to the Chair (both electronically and 4 hard-copies), who will distribute it to the committee for adjudication. The proposal cannot be the same as the student's thesis topic. If not approved the student will have an additional week to revise the letter of intent.

At the time of approval, the Comprehensive Examination Committee shall set the submission date of the research proposal, as well as the date and location of the oral examination. Subsequently, the candidate will have three weeks to complete the actual proposal, consisting of a literature review of the topic, hypothesis or nature of problem, objectives of the proposal, description and rationale of methodologies to be used, and significance of the expected results. The proposal should be 20-25 pages (format as per the letter of intent, but excluding figures and bibliography). It will also include a summary page and a lay summary, as required for a CIHR operating grant submission. The oral examination will be held 1-2 weeks after the candidate has returned the proposal (both electronically and 4 hard-copies) to the chair. This allows distribution of the proposal to the committee for adjudication.

At least two days prior to the scheduled oral examination, the Chair will confirm with all members of the examination committee that the written performance on the proposal is satisfactory such that the oral component of the comprehensive should proceed. The oral exam is similar to a thesis defense and should not normally exceed two hours in duration. At the oral examination, initially the candidate is asked to withdraw from the room, the Chair reviews the student's performance on the proposal and each examiner is asked to comment briefly on the proposal. During the examination examiners shall confine their questioning to issues which have arisen from the proposal. Questions should be used to assess whether or not the candidate has researched the subject area well, understands the scientific concepts and theories behind the research plan and the methods proposed, demonstrates a thorough knowledge base appropriate to the field of study, and, understands principles of appropriate and ethical behaviour in scientific research.

Option 2 - Essay Questions Format

Soon after being established, the Comprehensive Examination Committee shall convene and prepare three written questions for the candidate. There is flexibility with respect to the exact nature of the questions, but they must be thought-provoking and require substantive effort on the part of the candidate. For example:

- a question on the sub-discipline in which the thesis project is based, including, but not limited to knowledge in some detail of fundamental concepts within the field of specialization
- a question within the candidate's field of specialization but decidedly outside the thesis sub-discipline
- a question on the philosophy, history, sociology or ethics of scientific enquiry
- a question that encompasses several sub-disciplines, ie, an integrative-type question involving more than one cellular process, experimental method, drug class, organ system, etc

The committee shall set the submission date of essays, as well as the proposed date and location of the oral examination. In addition, the committee shall inform the candidate as to the level of detailed

knowledge expected at the oral examination. Once the candidate has been given the questions (either electronically or by hard-copy) from the Chair, they will have 4 weeks to complete the 3 essays. The student shall prepare written answers, each 15-20, double-spaced, type-written, single-sided pages with 12 point font and 1 inch margins (excluding figures and bibliography). The oral examination will be held 1-2 weeks after the candidate has returned the written answers (both electronically and single hard-copies of each essay) to the Chair. This allows distribution the answers to the committee for assessment.

At least two days prior to the scheduled oral examination, the Chair will confirm with all members of the examination committee, that the written performance on the essays is satisfactory such that the oral component of the comprehensive should proceed. The oral examination is similar to a thesis defense and should not normally exceed two hours in duration. At the oral examination, initially the candidate is asked to withdraw and the Chair reviews the student's performance on the essays. Each examiner is asked to comment briefly on the written responses. Examiners may focus their questioning on issues which have arisen from the written answers. Questions should be used to assess the student's understanding of concepts rather than details. However, because we expect students to have a general knowledge, questioning may be broadened from the particular to the general. Nevertheless, it is reasonable to expect that the candidate should have a detailed knowledge of the background to the sub-discipline in which the thesis project is based.

Outcome of the Oral Component (for both options)

The committee shall judge the candidate's performance as either "Pass" (unconditional) or "Repeat", the latter meaning that the student is not yet sufficiently prepared, and should have another opportunity within 12 months to demonstrate his or her ability. The committee may exercise discretion in determining the timing and nature of a repeat examination; it may require the student to repeat the entire examination, including revisions to the proposal or one or more of the essays, or one or more new written questions. The committee may also decide to repeat just the oral component. In the event that a repeat examination is necessary, the Chair must provide the candidate, in writing and within a week, detailed information from the examiners about perceived deficiencies and recommendations for improvement. The repeat oral examination should address these deficiencies, and may contain unrelated material relevant to the student's discipline.

On the repeat examination, the decision shall be "Pass" or "Fail"; in the latter case, examiners must provide to the supervisor and Chair in writing, within 24 hours, the reasons for judging the candidate unfit to continue in the PhD program. Thereafter, the procedure for withdrawal on academic grounds will be followed according to the General Regulations of the SGS.