



PhD Comprehensive Examination Guidelines

Format: Oral

Grading: Pass/Fail

The comprehensive exam will be graded pass/fail by a majority vote of the examining committee.

Purpose

The comprehensive examination is intended to assess a student's broad understanding of their field of study and their readiness to carry out independent research. It evaluates both foundational knowledge and the ability to think critically and integrate ideas.

Timing

All PhD students must complete the comprehensive exam within **36 months** of starting their program. Any delay beyond this period must receive prior approval from the Graduate Program Advisor and the Faculty of Graduate and Postdoctoral Studies (G+PS).

Preparation

Each candidate is required to submit a written thesis proposal, **limited to 25 pages double-spaced** (excluding figures and references), to each member of their Thesis Supervisory Committee. The proposal should review the literature, outline the general nature of unsolved problems in the research area, and propose questions along with experimental approaches to address them.

Committee approval of the research plan must occur at a separate meeting held at least one month prior to the examination. This meeting must be documented with a committee meeting report signed by all members of the committee and the student, confirming that the proposal is ready for examination.

Once the proposal is accepted, the Chair and each member of the Examination Committee must receive a copy at least two weeks before the exam. Students must also provide the Chair and Examination Committee with the most recent version of their CV. The Chair is the Director of the Genome Science and Technology Program or their designate. The Examination Committee is the same as the student's Supervisory Committee.

The qualifying examination will test the candidate's knowledge and comprehension of the literature relevant to the research proposal. Students should also be prepared to discuss areas closely related to their research. The examination will assess the ability to formulate hypotheses, design experiments, and demonstrate critical thinking. It is not designed to test simple factual recall, but rather the student's capacity to reason, integrate principles, and respond thoughtfully.



Students are encouraged to ask their committee members about likely topics and to seek recommendations on useful books, reviews, and specific papers.

Format of the Exam

The examination is scheduled for two hours. The first 15 minutes are allocated to a presentation of the research proposal; this may not exceed 20 minutes under any circumstances. The Chair will introduce the examiners, followed by the candidate's presentation. Each examiner is given approximately 20 minutes to pose questions. The supervisor does not ask questions during the exam.

After the first round of questioning, the Chair will offer each examiner a chance to ask follow-up questions. The exam can be held in person, via Zoom, or in a hybrid format.

Students should remember: if you don't know something, it's okay to say so. If you don't understand a question, ask for it to be repeated or rephrased. If you think you understand but aren't sure, clarify by asking something like, "Are you asking about X or Y?" Making informed guesses based on reasoning is encouraged.

Results

After the examination, the student will be asked to leave the room. The Examination Committee will then discuss the candidate's performance and attempt to reach a consensus on the outcome. In rare cases where a conditional pass is recommended without consensus, the specific additional requirements will be determined at the discretion of the Chair. The Chair will then invite the student back, announce the result, and may provide comments on the candidate's strengths and weaknesses.

There are three possible outcomes: Pass, Conditional Pass, or Fail.

In the event of a failure, the student will be informed of the reasons and asked to withdraw from the program. The committee may allow one retake of the exam, using the same Examination Committee. Remedial actions, such as rewriting the proposal or addressing specific deficiencies, may be required. Any second oral exam must be held within three months of the first.

If a student receives a Conditional Pass, they may be required to retake part of the exam, pass a course (minimum 68%), or fulfill another condition, as determined by the committee. These follow-up actions will be coordinated by the Chair in consultation with the Bioinformatics Graduate Advisor.

For students who transferred from the MSc to the PhD program, a failure (and failure of a retake, if permitted) will result in denial of admission to the PhD program, and they will not be permitted to continue toward the MSc degree.

Once the student has passed the examination, they must scan and email the completed G+PS [form](#) to the Program Coordinator. The form has two pages; ensure both are signed.