The University has guidelines for comprehensive exams [provide link]. These guidelines apply to comprehensive exams that are taken individually by each doctoral student, and better known in the Faculty as “Stage 2 comprehensive exams” or “PhD Comprehensive II”. They do not apply to what is known in the Faculty as “Stage 1 comprehensive exams” or “PhD Comprehensive I”, which are typically written, cohort-based exams that are created and marked by a departmental committee.

The purpose of this document is to provide additional information for both Stage 1 comprehensive exams and (Stage 2) comprehensive exams in the Faculty of Mathematics. In the latter case, the purpose of this document is to describe the Faculty-specific procedures that supplement the University guidelines. Sections of the University guidelines that are not included in the present document should thus be understood to apply as they stand, with no further Faculty-based operational details.

Remarks:

- The Department of Applied Mathematics has a single PhD Comprehensive Exam, which is similar to the Stage 2 exam in the other units.

- The Department of Combinatorics and Optimization has a Stage 1 Comprehensive Exam (see below). They also have a milestone called “PhD Thesis Proposal” that is not formally considered a comprehensive examination as per the University regulations, and is thus not subjected to the University and Faculty comprehensive guidelines.

- The Cheriton School of Computer Science has a PhD Comprehensive-I milestone rather than an exam. It consists of a breadth requirement achieved by an appropriate selection of courses.

Stage 1 Comprehensive exams

We refer to departmental webpages for further information on the format, timing, and possible outcomes for Stage 1 exams. We note that students are expected to complete this milestone at the latest by the end of Term 6, with some units requesting earlier deadlines. As mentioned above, the Department of Applied Mathematics and the Cheriton School of Computer Science do not have Stage 1 Comprehensive Exams. The following are links to departmental webpages.

- Combinatorics and Optimization
- Pure Mathematics
- Statistics and Actuarial Science

Comprehensive exam timing

The University requires that:

- Students with no previous studies at the PhD level successfully complete the comprehensive exam not later than the end of their seventh term of studies;

- Students who have completed previous studies in another PhD program at the University of Waterloo or at another university, successfully complete the comprehensive exam not later than their fourth term of studies in their current program or their seventh term of study at the PhD level, whichever is longer.

A student who anticipates not meeting these requirements (up to the final evaluation of the exam) may seek an extension to the deadline to complete the comprehensive exam. The student is required to submit a petition providing evidence of extenuating circumstances to the Associate Dean, Graduate Studies.

In the Faculty of Mathematics, valid extenuating circumstances are normally limited to issues related to the student’s (or student’s immediate family’s) health, documented incidents involving graduate student supervision that can be demonstrated to have delayed the student’s progress, and a change of research topic that is appropriately justified. Guidance on seeking accommodation due to health reasons shall be managed by the University’s AccessAbility Office.
If the petition is granted, the Associate Dean, Graduate Studies shall coordinate with the student’s Graduate Officer to establish a new deadline by which the comprehensive exam shall be completed. This deadline shall be communicated to the student in the notice of decision on the petition.

If no petition has been previously adjudicated, and a student fails to meet these requirements by the end of the seventh term, the student’s academic status will be changed to Required to Withdraw. Students may seek to have their standing changed to allow them to continue in their programs by submitting a petition under Policy 70 to Associate Dean, Graduate Studies, not later than 10 business days from the change of status. The petition rules described in this section apply.

Comprehensive examining committee
The composition of the comprehensive examining committee should satisfy the requirements stated in the University guidelines, and is approved by the Graduate Chair/Director in the student home’s department/School.

Comprehensive exam format and content
In addition to the University guidelines, refer to the following departmental webpages for further information on the comprehensive exam format and content.

- Applied Math
- Computer Science
- Pure Math
- SAS

Academic Integrity and the Comprehensive Exam
The University guidelines provide guidance regarding the process to follow when there are suspected violations of academic integrity in a comprehensive exam.

In the Faculty of Mathematics, when a student needs to submit a written document to their comprehensive examination committee prior to the examination, they are required to sign an acknowledgement form affirming their work does not violate the University policy on Academic Integrity, and includes information about the use of a plagiarism detection software.