Effective as of the Fall 2019–20 term, new students entering the PhD Program in Earth Sciences are subject to revised regulations for the PhD Comprehensive Examination (PCE). Students first registered during earlier terms may opt to fulfill the PCE requirement under the new regulations – as long as they have not yet attempted the PCE.

This document contains the relevant new Earth Sciences Graduate Handbook entries, including detailed description and procedures for this new version of the PhD Comprehensive Examination, as well as references to the appropriate sections of the current University Calendar.

**Ph.D. Program Policies and Regulations**

I. Each candidate is required to pass a Comprehensive Examination.

The Comprehensive Examination is carried out under the auspices of the School of Graduate Studies. This examination shall be conducted by an Examination Committee appointed by the Dean of Graduate Studies on the recommendation of the Academic Unit. It shall consist of the Head of the Academic Unit (or delegate) who shall be the Chairperson, the candidate's Supervisor, the Dean of Graduate Studies (or delegate), and at least three other members, the total voting members to be an odd number. All members of the Committee including the Chairperson, but excluding the Dean of Graduate Studies (or delegate), shall be voting members.

The purpose of the Comprehensive Examination is to ascertain that the candidate has a mastery of those sub-disciplines appropriate to their thesis research area, and that they can also relate the specialization of their research to the larger context of these sub-disciplines. It is also intended to determine whether the candidate has sufficient knowledge and comprehension to successfully prosecute the proposed research. Further, it is intended to encourage students to write and plan out potential contributions from their research.

**Department Policies**

IV. The Ph.D. Comprehensive Exam will normally be taken no later than the end of the fourth semester following the student’s registration in the Ph.D. program. For students for whom English is a second language, the exam will normally be taken no later than the end of the fifth semester following the student’s registration in the Ph.D. program.

Note: Detailed descriptions of the Ph.D. Comprehensive Exam are included below.

**Ph.D. Comprehensive Examination**

I. The Ph.D. Comprehensive Examination requires one paper to be written by the candidate, approximately 7,500 words in length (~25 pages double-spaced not including references and figures). The paper should review the relevant literature for the student’s broad field of research, introduce their proposed research topic, review any completed research, and present a detailed section-level outline for their thesis. The candidate subsequently presents this paper orally to the Examination Committee and defends it during questioning by the Committee (see V-VI below).
II. The Examination Committee will be selected in compliance with University Calendar regulations (4.8.2.2). The student will meet with the Examination Committee to ensure that the scope of the expected literature review, and other required components of the paper, are clear to all examiners and the student, as well as to confirm that the student has completed enough research to proceed to the exam. The student is expected to consult with their Supervisor and members of the Examination Committee during the preparation of the paper. However, the actual writing of the paper is to be done exclusively by the student.

III. A meeting with the Examination Committee (minus Dean of Graduate Studies) should normally take place within the student’s first year in the program, but not less than three months before the proposed date of the Comprehensive Examination. The date of the examination will be set at the time of this meeting.

IV. The candidate shall distribute one copy of the paper at least two weeks prior to the examination to each of the following: Head of the Department of Earth Sciences and their assistant, each member of the Supervisory Committee, and each member of the Examination Committee.

V. The oral component of the Comprehensive Examination is a public 20-30 minute oral presentation of the research paper by the candidate, followed by closed (in camera) questioning by the Examination Committee on the contents of the paper.

VI. The duration of the examination will not normally exceed three hours.

VII. Members of the Examination Committee shall decide the results of the Comprehensive Examination based on the detailed regulations specified in the University Calendar, “Ph.D. Comprehensive Examination” (4.8.2). Four results are available to the Examination Committee: Pass with Distinction (requires a unanimous vote), Pass (requires a majority vote), Re-Examination (requires a majority vote), and Fail (requires a unanimous vote).

VIII. If the student is awarded a Fail on the Comprehensive Examination, their program is terminated.

IX. If the student passes the Comprehensive Examination, but gaps or weaknesses in the student’s knowledge are identified, the student may be required by the Examination Committee to take one or more specifically recommended additional course(s) and to achieve a minimum of a B grade in those course(s). The committee may also recommend specific reading to remedy the deficiencies.

[v 2019-12-09.1]