

Ph.D. Qualifying Process

Department of Geophysics

The CSM Graduate Bulletin lists the requirements that PhD candidates must fulfill within the first two calendar years after enrolling. One of these requirements is to “demonstrate adequate preparation for, and satisfactory ability to conduct, doctoral research.” In the Department of Geophysics students meet this requirement by successfully completing a qualifying process (referred to informally as the “comps” process) that is intended to develop students’ ability to conduct and publish high-quality research in peer-reviewed journals. There are two steps to the qualifying process as described below.

1. Qualifying Research Project.

- a. Under the supervision of a Geophysics faculty member, conduct a research project that culminates in submission of a written paper to a leading peer reviewed journal.
 - i. The student’s committee is responsible for providing internal peer review of the paper prior to its submission.
 - ii. The manuscript must be submitted to the committee at least 3 weeks prior to the intended date of defense, to give committee members 2 weeks to review the paper and approve its defense before notice of the defense is sent out to the public by the Department.
 - iii. The manuscript should be double spaced but otherwise formatted according to the requirements of the journal to which it will be submitted.
 - iv. Research projects encumbered by proprietary restrictions that prevent their publication are not acceptable.
- b. Make an oral presentation and successful defense of this research before a public audience including the thesis committee, Geophysics faculty and graduate students, within 18 months of enrollment in the PhD program. Notice of the defense must be distributed by email to faculty, students and other interested parties not less than one week prior to the scheduled date.

2. Thesis Proposal and Outline

- a. Under the supervision of the student’s advisor and thesis committee, perform background research culminating in a written proposal and substantive outline for the PhD thesis.
 - i. The proposal and outline must be submitted to the committee at least 3 weeks prior to the intended date of defense, to give committee members 2 weeks to review the proposal and approve its defense before notice of the defense is sent out.
 - ii. Thesis proposals and outlines should be of the quality one would submit to an external organization (such as NSF, or Shell) to solicit funding.
 - iii. In their proposals students should indicate what elements of their proposed work are original and likely to constitute a significant contribution of new

knowledge or techniques, and what journal(s) would be most suitable for publishing this work.

- b. Make an oral presentation and successful defense of this proposal and outline before a public audience including the thesis committee, Geophysics faculty and graduate students, within 2 years of enrollment in the PhD program. Notice of the defense must be distributed by email to faculty and grad students not less than one week prior to the scheduled date.

Notes:

1. Questions and problems that arise when students are executing their qualifying research project may lead to a thesis topic, in which case the thesis proposal and outline will clarify the scope of work that is to be done beyond the qualifying research project.
2. In order to facilitate scheduling of oral defenses at a time when a significant audience of faculty and graduates students is available, it is preferable to choose a day and time that have been set aside by the Geophysics department for theses defenses. Currently these are Wednesday afternoon or Friday afternoon 3-5 PM.
3. The qualifying process described here pertains to students enrolling for their PhD program starting in Fall 2004. Students who enrolled prior to Fall 2004 are entitled to petition the Department of Geophysics to switch to this qualifying process. Decisions will be made on a case-by-case basis by the Geophysics faculty.

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