

Structural Engineering and Mechanics (SEM) Program
PhD Qualifying Exam Rules
Summary of Requirements

This document provides guidelines for administering and taking the pre-doctoral Qualifying Exam for the **Structural Engineering and Mechanics Engineering** sub-specialty in the Department of Civil and Environmental Engineering at the University of Washington.

0. Tasks

Please go to

<https://catalyst.uw.edu/workspace/lowes/41826/>

and fill out the survey to formally register for the exam. You will find additional support for the exam there.

1. Qualifying Exam Purpose

The purpose of the Qualifying Exam is to demonstrate to the program faculty that the student: (1) possesses sufficient breadth of knowledge of core subject matter; (2) the ability to apply basic principles to engineering problems; and (3) can proceed successfully with the in-depth research and learning needed to complete a Ph.D. degree. The Ph.D. Qualifying Exam is a Department requirement for all Ph.D. students in order to continue on to the Ph.D. The exam is not a Graduate School requirement.

2. Requirements

To be eligible to take the Exam, the student must have a grade point average of at least 3.5 in the core graduate courses that have been taken. Core graduate courses encompass all graduate-level engineering and mathematics courses, and any senior level courses that are permitted as part of the curriculum for the MSCE degree at the University of Washington.

For students who have completed a MSCE degree elsewhere, grades in courses taken both there and at the University of Washington will be counted in the grade point average.

Under special circumstances, the program faculty will consider a waiver of this requirement, but reserve the right to impose additional conditions

3. Exam Committee

A committee selected by the program director will administer the exam. Typically the committee consists of three SEM faculty members.

4. Form of the Examination

The exam is given on one day, has a morning and afternoon session, and consists of written questions. Each session lasts approximately four hours and contains questions of approximately thirty minutes in length. These numbers are approximate, and are given here only as a guide to the probable length and complexity of the problems. The questions will generally be aimed at determining the student's knowledge of fundamental principles of behavior and modeling, rather than particular codes of practice. Therefore, for most of the questions, no supporting materials such as textbooks or written notes will be allowed. If supporting materials are allowed, students will be notified prior to the exam, or the materials will be supplied with the exam.

5. Electronic Devices

Unless otherwise stated in writing, devices that contain communication capabilities, such as phones, laptop computers or other devices with Internet access will not be allowed. Calculators without such access are permitted.

6. Preparation

A reading list and practice problems are available upon request to the SEM Graduate Program Advisor. Aspiring students should familiarize themselves with the subject matter on the reading list and work the practice problems. The problems are typical of, but not necessarily similar to, the questions to be expected on the exam.

7. Evaluation of Results

The candidate's solution to each question will be graded by the faculty member who set the question on a scale of zero to ten. The lowest score in the morning and afternoon sessions, respectively, will be dropped. If all of the remaining scores are greater than or equal to a score of seven, the student will automatically pass. In other cases, the remaining scores will be averaged. The Exam Committee will evaluate the results and make a recommendation to the program faculty, who will make the final decision. A student who fails the exam the first time may, at the discretion of the faculty, take the exam for a second time.

Upon successful completion of the exam, please remind your thesis advisor to go to

https://catalyst.uw.edu/webq/survey/llatal/204060?solstice_selected_button=btn_4101c7390801fb85a169a57073e2718c_1&sol_button_data_btn_4101c7390801fb85a169a57073e2718c_1=c3398b58607925f99837c41b2f3e52176cb61db5a2bbc82ab5cc019f4ff4669d57fe2efa609cc4239c28f5b6e8badf5c585d44081ecdda6e276a95d5b138c1b436a2a2ef8e737a080af3618a0a6bcb3c84ea734c191422028b275b0eaff9630ccc77cf1b86d9ee64322af5d894418b7d639c7bcab33a2e8cd8755cbb06c498ddcf224c851b7d58214f6ef55931b285c5

in order to complete the qualifying exam notification.

8. Schedule

The exam is given at the beginning of Spring Quarter. The exam will be given again in June at the end of Spring Quarter for those allowed to re-take the exam.