

PhD Qualifying Exam Procedure

Mechanics, Materials, and Structures
Department of Civil and Environmental Engineering
Northwestern University

1. Introduction. The Qualifying Exam is one of the major steps necessary for a PhD student to advance to PhD Candidacy, which is one of TGS's required milestones to earn the PhD degree. Admission to the PhD program does not guarantee advancement to Candidacy. In addition to passing the Qualifying Exam, the other standards for advancement to Candidacy are: (1) a 3.5 GPA, (2) passing the English Language Proficiency requirement (international students only), and (3) identifying a research advisor to supervise PhD study and provide financial support. For other details about advancement to Candidacy, consult the PhD Handbook available on the CEE webpage.
2. Timeline. For students entering Northwestern with a MS earned at another university, the Qualifying Exam should be administered after the 3rd quarter of study (end of first academic year). For students entering with only a BS degree, the Qualifying Exam should be administered no later than the end of the 7th quarter of study (end of second academic year), with a preferred target of the 5th quarter of study.
3. Committee. Three faculty members from CEE will comprise the committee – one of which will serve as the chair of the committee. The student's research advisor may serve on the committee but cannot be the chair. The committee is selected by the MMS area coordinator, by taking into account input from the student.
4. Exam Format. In consultation with the committee, the student will set an exam date and time (the CEE program coordinator can help with this step). Two weeks prior to the exam date, the chair will provide the student with a scholarly research paper to review. The student will study the paper and prepare: (1) A short (no more than 2 page) written summary and critique of the paper, and (2) a short (no more than 15 minute) presentation on the paper, including background, methods, findings, and the student's opinions of impacts and possible extensions of the work. The exam itself will be one hour, and will begin with this presentation, followed by questions which will focus on evaluation of the student's understanding of the paper topic given the fundamental knowledge the student has acquired through coursework and other activities. The exam is not open to the public.
5. Exam Outcomes. (1) "Pass" means the student has satisfied the Qualifying Exam requirement and no further action is needed; occasionally "High Pass" will be awarded for exemplary performance. (2) "Conditional Pass" means additional conditions must be met; these conditions are monitored by the chair and once completed, the Qualifying Exam requirement is satisfied, with an exam retake not required. (3) "Fail" means the student has not satisfied the Qualifying Exam requirement and may be allowed to retake the exam once, preferably within one quarter.