



## Guidelines for the PhD Comprehensive Examination in the Department of Civil Engineering

### Exam Description

The exam consists of three parts:

1. Written dissertation proposal.
2. PowerPoint synopsis of the proposal for presentation to the student's faculty committee.
3. Oral presentation of the proposal including student's research objective(s) and progress to date.

These sections are described in more detail below. Students should discuss these items with his/her primary advisor and faculty committee members.

### Part 1: Dissertation Research Proposal

The dissertation proposal must contain:

1. **Introduction and Objectives** (≈2 pages): A brief overview of the topic area and the specific objectives of the dissertation research. The student must state the primary hypothesis that drives this research.
2. **Significance and Relevant Literature** (≈5 pages): Summary of most relevant background material, gathered primarily from peer-reviewed journal articles, which support the relevance of the research goals and the contribution that this research will make to the existing body of knowledge.
3. **Research Methodology** (≈5 pages): a description of additional studies needed to attain the research goals, categorized by specific aim. This usually includes but is not limited to: descriptions of how the data will be collected and analyzed (statistical or otherwise); statements describing how the work will address the primary hypothesis; a review of anticipated problems and alternative approaches the candidate may consider during the course of research; and a timeline for completion of the research.
4. **Preliminary Data and Progress to Date** (≈5 pages): This section should include relevant figures, tables, and other quantitative details of research and analysis. This section should demonstrate that the goals are achievable and that the candidate has already made significant progress toward successful completion of the dissertation. A summary of remaining research to be accomplished should also be included.

The candidate's advisor should be consulted regarding document details and length beyond those provided above. The advisor may, at their discretion, provide the candidate with example documents conforming to this format. The document must be provided to the comprehensive committee at least two weeks prior to the exam.

### Part 2: Oral Exam

The candidate will give a 1-hour public presentation (≈35 slides) to their thesis committee and the campus at large that highlights the main points of the proposal as defined above.

1. Introduction and Objectives (≈5 slides):
2. Significance and Relevant Literature (≈10 slides):
3. Research Methodology (≈10 slides):
4. Preliminary Data and Progress to Date (≈10 slides):

During the presentation, candidates may be asked questions by their committee. After the presentation, candidates may be asked questions by the audience. At the end of the exam, public attendees (i.e. those not on the committee) will be asked to leave, and candidates should expect additional questions and feedback on their research goals and how attainable they are in the candidate's proposed timeline.

## Examination Outcome

The Comprehensive Examination Committee will render one of three decisions:

1. UNCONDITIONAL PASS - Candidate has passed the Examination and may continue in the program as a candidate for the PhD degree. Doctoral degree candidates will need to pay attention to the rules regarding registration for dissertation hours.
2. CONDITIONAL PASS – Candidate will have passed the exam pending satisfaction of the conditions imposed by the committee. CANDIDATE MUST SATISFY THESE CONDITIONS BEFORE REGISTERING FOR ADDITIONAL DISSERTATION HOURS. The candidate must satisfy these conditions within a time frame not to exceed four (4) months. Failure to satisfy the conditions will result in a failure of the Examination.
3. FAIL – The candidate has failed the Examination. The Graduate School Rules stipulate that a student failing the Comprehensive Examination may, at the program's discretion, retake the Examination once. The retake will be in the form designated by the committee and must be completed within twelve (12) months. A student who fails to retake the exam within twelve (12) months is subject to immediate dismissal from the Graduate School. A student who fails the retake of the exam is subject to immediate dismissal from the Graduate School.

The outcome of the exam should be communicated to the Graduate School via the exam report on the same day of the exam or as soon as possible following the exam. If a student passes conditionally, the conditions that are stipulated to the student should also be shared with the Graduate School.

## Graduate School Rules and Policies

The department follows the Consolidated Graduate School Rules and Policies on the Comprehensive Examination. Please consult this publication and note the following requirements. In some cases (e.g. committee size) department rules may be more stringent than Graduate School rules.

1. The comprehensive examination is typically scheduled at the end of the second year; **it must be completed no later than the end of the third year.**
  2. The student must have at least a 3.0 cumulative GPA prior to taking the examination and the student must apply for admission to candidacy to the PhD ***at last two weeks prior to the examination.***
  3. Students are required to be registered during the term in which their exam takes place. If the exam is scheduled in between terms, students are required to be registered in the semester that immediately follows. Students should be registered before the exam paperwork is submitted.
  4. All required non-thesis credit hours must be completed by or registered for during the term in which the examination is taken; and all transfer credits must be transferred prior to the term in which comprehensive examination is taken.
  5. No more than 10 thesis credit hours can count towards the PhD student's 30 hour thesis credit requirement prior to passing the comprehensive exam. Thesis credits taken during the semester of the examination don't count towards this 10 credit limit.
- The comprehensive examination committee and the examination schedule must be approved by the program director. The examination committee shall consist of a minimum of three Graduate Faculty members. The chair of the committee must be a member of the degree-granting program. The student's dissertation advisor may not chair the examination committee.
  - All committee members must have a faculty appointment filed through the Graduate School to serve as a committee member. GFAs should be submitted for review and approval before exam paperwork is sent.