

Qualifying Examination Process

(Second Semester of Ph.D. Study)

Purpose

The purpose of the qualifying examination is to determine your fitness to proceed in the Ph.D. program and to identify and develop a plan to remedy any deficiencies you may have that will impair your future progress. You will be evaluated in terms of five key skills that are essential to your success as a Ph.D. student:

- Communication
- Critical thinking
- Curiosity
- Ability to defend ideas
- Ability to perform under constraints

Timing

Qualifying examinations are held each Spring Semester during Spring Break week. As a new Ph.D. student, you are required to take and pass the qualifying examination during your second semester of residence.¹ You should plan to be present on campus during this time period to complete your written exam.

Structure and Process

The examination consists of a time-limited written exam followed by an oral examination. For the written exam, you will be assigned two questions, each of which has the following three components:

Element	Description
Breadth	Define the given topic in an informative way. Your description does not have to be comprehensive, but should present the general context of the topic and identify influential references.
Depth	This part of the question requires you to illustrate skills in researching, defining, and discussing a specific detailed issue in the field.
Application	In this component, you will articulate and apply the detailed knowledge that has been developed in the depth component to a problem in a given context, and propose possible approaches to address the problem

On Monday of Spring Break week at 9 am, the list of questions will be released on a Canvas site. You will identify your top three choices of questions to answer via a Canvas poll by 9:30 am, and you will be assigned two questions to answer, one of

¹ If you have entered the Ph.D. program in Spring semester, you will take the qualifying exam in your third semester, the following Spring semester.

which will be based on your choices. You will be notified no later than 12 noon regarding which questions you must answer. You must submit your written response to each question separately (i.e., each question with its three parts must be combined into a single document with references) as a stand-alone pdf document electronically to the Qualifying Exam Canvas site, no later than 5 pm on Friday. Your answer to each of the two questions must not exceed **five** pages, not including references. Late submittals will be considered non-responsive and will not be accepted.²

Your submittals will be reviewed by the examining committee and additional faculty based on the questions selected. The examining committee will schedule an oral examination within two weeks of the conclusion of your written exam. The oral examination will consist of a series of questions posed to you by the examining committee with regard to your written answers. The committee will meet following the examination to determine a ruling in each case. The examining committee will be comprised of three faculty from the Department of Building Construction and/or the Myers-Lawson School of Construction, who will serve on a rotating basis.

Outcomes

Three possible outcomes exist for the qualifying examination:

- A. Unconditional Pass – the student has met all requirements for the exam and can proceed in the doctoral program. The committee may elect to provide additional recommendations to the student on how to improve, but these are optional.
- B. Conditional Pass – the student is deemed capable of meeting the minimum requirements to complete doctoral study, but specific remedial actions need to be taken to meet those requirements. The committee will specify what must be done in its recommendations. The committee may elect to schedule a follow-up meeting with the student after a designated period of time to re-examine the student and assure that minimum requirements are met.
- C. Fail – the student does not meet the minimum requirements for doctoral study and cannot remediate deficiencies using available resources in a doctoral plan of study. The committee may provide feedback to the student to identify areas of critical weakness. The student can then proceed on a path to a terminal M.S. degree.

Preparation

The most useful thing you can do to prepare for your exam is to become facile with the information resources available to you. Be sure you are aware of and able to use the library, major search engines, and publications in the construction domain and

² Students requiring special accommodations must notify the examining committee in writing at least two weeks prior to the exam date so that arrangements can be made accordingly.

in your specific area of study. Since you will be expected to communicate effectively in written and oral form, you should also make yourself familiar with your word processing application of choice, including any software you plan to use to manage your references. Become familiar and comfortable with the convention for citing resources most used by your advisor. The American Society of Civil Engineers (ASCE) provides a referencing system used by many journals in our field and is recommended for use in the qualifying examination.

Please be aware that the Virginia Tech Writing Center is closed during Spring Break and will not be available to help you with your exam. You should make alternate arrangements for editing and writing assistance if you need to.