

School of Industrial Engineering and Management

PhD Qualifying Examination

The PhD Qualifying Examination is required for all students in the PhD program. This exam tests a student's ability to conduct research in their focus area and is usually taken in the fourth regular semester. Part-time PhD students usually take the qualifying examination by their fourth year.

Objectives

- Evaluate the student's academic performance in coursework.
- Evaluate the student's ability to perform independent dissertation research.
- Evaluate the student's written and oral communication skills, providing feedback as appropriate.

Format

The exam has three components: (1) academic performance in coursework, (2) a written examination, and (3) an oral examination. Students must pass all three to continue in the PhD program.

1. The student must take at least four graduate-level IEM courses (12 credit hours minimum) within the first three regular semesters of attendance and achieve a 3.5 GPA or greater overall.
2. For the written examination, the student prepares a technical paper suitable for submission to a refereed journal (or conference, if that is the norm in the field). It is strongly encouraged, but not required, that the work be submitted for peer review prior to the oral examination. The student must send the paper to the dissertation committee at least two weeks prior to the oral examination. The paper should contain original research (not a survey article), and the advisor will need to attest that the student did a majority (>50%) of the work.
3. For the oral examination, the student presents their paper to the dissertation committee at a mutually agreed upon time. The presentation should last roughly 20 minutes with an additional 10 minutes for questioning. The committee should be allotted 15 minutes before the presentation to discuss the written examination, and 15 minutes afterwards to evaluate the oral presentation. While the meeting is expected to last 60 minutes, a total of 90 minutes should be budgeted.

PhD students who first earn an MS IEM from OSU are permitted (but not required) to use their MS coursework and thesis work to meet the requirements above, if the dissertation committee approves.

Possible Outcomes

The dissertation committee determines the outcome of the written and oral examinations. The outcome requires approval of the faculty adviser and must be agreed to by all but at most one committee member.

Pass - The dissertation committee agrees that the student has passed the qualifying examination and may proceed to develop the dissertation proposal.

Conditional pass - The dissertation committee agrees that the student has passed the qualifying examination, subject to corrections of deficiencies specified by the committee, which are not to include retaking any part of the qualifying examination. The student is expected to complete the corrections within two months.

Conditional failure - The dissertation committee agrees that the student has failed the qualifying examination. The student must retake all or part of the exam (as specified by the committee) by the next regular semester.

Failure - The committee agrees that the student has failed the qualifying examination, and the student should be dismissed from the program.