

PhD Qualifying Examination in Robotics & Control

The purpose of the PhD qualifying exam is to assess students' research skills (their ability to analyze, interpret, and communicate fundamental scientific, mathematical, and engineering concepts) for the purpose of determining their aptitude for the PhD program. The examination also includes a diagnostic function to highlight potential weaknesses in the students' background that can be addressed through additional coursework or independent study.

Exam Format

The qualifying examination for robotics and control consists of three components:

1. A written research paper on a topic selected by the committee. This will generally consist of literature review with a discussion highlighting the interesting research directions in that topic. The committee will specify the format and length of the paper, which will be due one week prior to the scheduled oral examination.
2. A 30 minute oral presentation on the topic of the research paper.
3. A 30 minute questioning session on topics presented in the research paper, as well as topics identified by the committee as a result of evaluating the research paper. These topics will be communicated to the students at least three days prior to the oral examination.

The qualifying exam will be evaluated by the faculty in the robotics and control area. At least four faculty members must be present at the examination.

Exam Scheduling

The qualifying exam will be conducted in the first three weeks of Winter term every year: The timeline for taking the qualifying exam is as follows:

- **For students entering the program with an MS degree:** No later than their second year in graduate school.
- **For students entering the program with a BS degree:** No later than their third year in graduate school.

Students who fail to meet this deadline will not be allowed to continue in the PhD program.

Students who fail the qualifying examination will be allowed to re -take it **once** within 60 days.

Students who fail the qualifying examination a second time will not be allowed to continue in the PhD program and may be re-directed toward an MS or MEng degree, if appropriate.