

**NCSU Materials Science and Engineering**  
**Ph.D. Candidate Preliminary Oral Examination Guidelines**

**Intent of the Examination**

The intent of the Preliminary Oral Exam is for the student's committee to

- evaluate whether the candidate is ready to carry out their thesis research in terms of their basic understanding of relevant science and engineering principles, and their knowledge of the literature in the area of their thesis research;
- provide suggestions and guidance for the thesis research;
- provide feedback regarding the students ability to communicate their research orally and in written form.

**Scheduling:**

The Preliminary Oral Exam should be taken after the topic for the candidate's thesis research has been established but before a significant portion of the thesis research has been completed.

Instructions for scheduling the Preliminary Oral Exam can be found in the Graduate School Handbook: <http://www.ncsu.edu/grad/handbook/sections/3.6-comprehensive-examinations.html>

**Preliminary Exam Format**

The oral exam should have the following components:

1. Student presentation of their proposed thesis research.  
*This presentation should include an introduction to the research topic, motivation for the student's research contribution, a literature survey, any preliminary research results, and their planned research. The presentation should be no longer than about 45 minutes and is open to the general public, with attendance by NCSU faculty and students encouraged.*
2. Questions from the general audience.
3. Questions in a session open to only the student and their thesis committee
4. Committee deliberation, open only to committee members

**Written Material for the Preliminary Exam**

**Required:**

- The candidate must provide the committee members an electronic or paper copy of the PowerPoint slides to be used in the oral presentation at least 48 hours in advance of the examination. Failure to comply may result in a rescheduling of the examination.

**Recommended:**

- The candidate should prepare a written document of no more than 15 pages that includes an introduction to their research topic with the motivation for their research contribution, an appropriate literature survey, a description of preliminary research results, and their planned research including projected milestones. This should be provided to the thesis committee at least seven days before the examination.
- Copies of any published or submitted manuscripts co-authored by the candidate that are related to their proposed thesis research.

Completion of the recommended material is at the discretion of the PhD advisor in consultation with the thesis committee members.