Overview

The comprehensive examination process for doctoral students in the Department of Electrical and Computer Engineering (ECE) at Boise State requires a written report defended in an oral examination.

Eligibility

Students must submit the Comprehensive Exam Request and Appointment of Supervisory Committee forms by the end of his/her third semester and successfully complete the comprehensive exam by the end of his/her fourth term.

In order to be eligible for the comprehensive examination, a student must complete three core courses at Boise State with a grade point average of no less than 3.55 in those core courses. If the student has not maintained a GPA of 3.55 or better, s/he may petition for a one-year extension. However, it should be noted that any extension will result in suspension of any department assistantship until the comprehensive exam is successfully completed.

- Core courses include: ECE 500, ECE 510, ECE 520, ECE 530, ECE 540, ECE 572, ECE 650, ECE 660
- NOTE: Graduate courses may only be repeated one time, and only with the permission of instructor and written approval from the ECE PhD Program Coordinator.
- If a student is unable to attain a 3.55 GPA in three (3) core courses by the end of his/her fourth (4th) term of doctoral study, s/he will be dismissed from the program.

Procedure

Once a student is eligible for the comprehensive exam, s/he should:

1. Identify a supervisory committee and submit the Appointment of Supervisory Committee form
2. Evaluate peer-reviewed journal articles that strongly relate to dissertation research.
3. Complete the Comprehensive Exam Request Form
   - Identify the three most relevant articles from step 2 and
     o Provide citations in IEEE format
     o Upload PDF copies of the three articles
   - The request form should be submitted no less than three weeks prior to the beginning of the term in which the student anticipates completing the comprehensive exam.
Student’s supervisory committee will review the quality and appropriateness of articles identified in the Comprehensive Exam Request Form and either
  o forward to the ECE Graduate Committee for final approval, or
  o return to the student for revision.
  
Upon approval of the Comprehensive Exam Request Form, the ECE Graduate Committee will notify the ECE Department Manager who will notify the student and supervisory committee by email, and provide a permission number to the student for ECE 691 Doctoral Comprehensive Examination. The ECE Department Manager will maintain and update the ECE Dept. Comprehensive Exam Database with the student details.

4. Enroll in one (1) credit of ECE 691 Doctoral Comprehensive Examination by the fourth semester of study using the permission number provided.

5. Prepare a written document providing background information and a literature review (drawing on the articles approved in step 2). A report template is available to assist in preparation of this report, but format can be modified by supervisory committee or chair.
   - Document shall be no less than 12 pages in length. No limit is placed on length, but brevity is desirable.
   - Text shall be double spaced.
   - Page margins shall be set to 1” throughout.
   - Document shall use 12-point Times New Roman font.
   - The three articles approved in step 3 must be cited, although there is no limit to the number of articles included as references.
   - References shall follow IEEE citation format.

6. Submit document prepared in step 5 to supervisory committee no less than three weeks prior to anticipated date of oral exam, and no less than four weeks prior to the end of the semester.

7. Complete Exam Request Form to schedule oral presentation and defense no less than three weeks prior to anticipated date of oral exam, and no less than four weeks prior to the end of the semester. The supervisory committee chair is responsible for scheduling a date that can be attended by the graduate committee chair or their selected representative.

8. Prepare an oral presentation that provides a comprehensive overview of relevant background information and in-depth discussion of the literature reviewed in preparation of the written report. Note: this is an overview of the relevant background information, not the student’s proposed research.

   - Presentations shall be limited to 30 minutes.
   - Following the presentation, an oral examination will be conducted by the student’s dissertation committee.
   - At least one representative of the ECE Graduate Programs Committee shall be present for the oral exam, but s/he shall not constitute a voting member of the dissertation committee.
   - Upon successful completion of the oral exam, the student will have the committee sign the Comprehensive Exam Completion form and provide the signed form to the graduate committee chair.
   - Should a student fail the oral exam, s/he will have up to one year to repeat the comprehensive exam.
     o The comprehensive exam can be repeated only once.
     o Failure to complete the comprehensive exam will result in a student’s dismissal from the program.
**Expectations**

Both written report and oral examination will clearly demonstrate the student’s understanding of the scientific and technical aspects of the *background* information related to their research area. S/he must demonstrate understanding of techniques and research methods, measurements, analysis, and theoretical foundations of the work.

**Restrictions**

Students must successfully complete the comprehensive exam by the end of his/her fourth (4th) semester of study in order to maintain eligibility for department funding, and by the end of his/her sixth (6th) semester of study in order to remain in the program.

**Other Considerations**

A student enrolled in the direct-to-PhD program who wishes to earn a master of engineering degree may do so once s/he passes the comprehensive exam and has successfully completed the required number of credit hours for MEngr degree. Learn more about the process for earning an MEngr online at [https://coen.boisestate.edu/ece/prospective-students/master-of-engineering/](https://coen.boisestate.edu/ece/prospective-students/master-of-engineering/).