

Electrical Engineering, PhD

School/College: College of Engineering

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The Doctoral Program in Electrical Engineering offers the following four tracks: Computer Engineering, Communications and Signal Processing, Electronic and Optical Materials and Devices, and Power Systems and Control.

Additional Admission Requirements

- Bachelor's degree in electrical and/or computer engineering from an ABET accredited university or from an acceptable institution of higher learning with an earned GPA of 3.5 or higher over the last 60 course credit hours of undergraduate degree or Master of Science in Electrical Engineering, Computer Engineering, or a related discipline from an acceptable institution of higher learning, and prior research experience.
- GRE scores
- At least one of the letters of recommendations must come from an individual knowledgeable of the student's graduate performance and potential.

Degree Requirements

Total credit hours: 60 (post baccalaureate)

- Required courses (12 credits): ECEN 621, ECEN 629, ECEN 650, ECEN 668
- ECEN electives (27 credits): Take 27 credits from ECEN 600-800 with approval of advisor
- Technical Electives (9 credits): Take 9 credit hours with approval of advisor
- Attend doctoral seminar
- Dissertation (ECEN 997: 12 credits)
- Pass qualifying exam, preliminary exam, dissertation defense
- All doctoral students must take at least 12 credit hours of 800 level courses

Total credit hours: 36 (post MS)

- ECEN electives (15 credits): Take 15 credits from ECEN 600-800 with approval of advisor
- Technical Electives (9 credits): Take 9 credit hours with approval of advisor
- Attend doctoral seminar
- Dissertation (ECEN 997: 12 credits)
- Pass qualifying exam, preliminary exam, dissertation defense
- All doctoral students must take at least 12 credit hours of 800 level courses

Dissertation Research:

A student may not register for dissertation credits before passing Qualifying Examination. No more than 12 dissertation credits are counted toward the total credit hours requirement for the degree.

Qualifying Examination:

The Qualifying Examination is given to assess the student's competence in a broad range of relevant subject areas. Only students with unconditional status and in good academic standing may take the Qualifying Examination. A student who wants to retake the Qualifying Examination must apply to retake the Qualifying Examination by the posted deadline. No student is permitted to take the Qualifying Examination more than twice. A student not recommended for re-examination or who fails the exam on a second attempt may be dismissed from the doctoral program.

Preliminary Oral Examination:

The Preliminary Oral Examination is conducted by the student's dissertation committee and is a defense of the student's dissertation proposal. Passing this exam satisfies requirements for Ph.D. Candidacy. Failure on the examination may result in dismissal from the doctoral program. The student's Advisory Committee may permit one re-examination. At least one full semester must elapse before the re-examination. Failure on the second attempt will result in dismissal from the doctoral program.

Admission to Candidacy

Student will be admitted to candidacy upon successful completion of the Qualifying Exam and the Preliminary oral Exam.

Final Oral Examination:

The Final Oral Examination is conducted by the student's dissertation committee. This examination is the final dissertation defense presentation that is scheduled after a dissertation is completed. The examination may be held no earlier than one semester (or four months) after admission to candidacy. Failure on the examination may result in dismissal from the doctoral program. The student's Advisory Committee may permit one re-examination. At least one full semester must elapse before the re-examination. Failure on the second attempt will result in dismissal from the doctoral program.

Submission of Dissertation:

Upon passing the Ph.D. Final Oral Examination, the Ph.D. student must have the dissertation approved by each member of the student's dissertation committee. The approved dissertation must be submitted to The Graduate College by the deadline given in the academic calendar, and must conform to the Graduate College's guidelines for theses and dissertations.