

Electrical and Computer Engineering, PhD

Requirements

The Doctor of Philosophy program in electrical and computer engineering requires a minimum of 72 s.h. of graduate credit. At least 45 s.h. must be earned in formal coursework (not in thesis work or other independent study), including 30 s.h. from an approved list of electrical and computer engineering courses. For the list of approved courses, see the Department of Electrical and Computer Engineering Graduate Handbook on the department's website. Each student's study plan must be approved by the student's advisor and by the graduate committee. Students must maintain a UI cumulative grade-point average (GPA) of 3.25 or higher in all graduate coursework.

Students take a qualifying examination and a comprehensive examination. Then they must successfully complete a research program that includes a minimum of 18 s.h. of PhD research and culminates in the preparation of a thesis. Finally, the candidate must present a successful oral defense of the thesis.

Qualifying Process

Acceptance to the PhD program requires successful completion of the PhD qualifying process. The qualifying process consists of two parts—an examination and a course breadth requirement. The half-day written exam is given once a year, late in the spring semester. It covers two subjects chosen by a student from a list of nine. Students normally are expected to take the qualifying examination within the first 30 s.h. of their graduate studies. A cumulative GPA of at least 3.25 is required for admittance to the exam. Students who fail the examination may retake it only once the next time it is offered.

To complete the breadth requirement, students must take two courses associated with the same list of nine subjects that the examination is drawn from and complete the courses with grades of at least A-minus. The breadth courses must not duplicate the subjects chosen for the examination and must be completed within the fourth semester of graduate study.

Comprehensive Examination

Following successful completion of the qualifying examination and invitation to the PhD program, a student must complete the two-part comprehensive examination. The first part is a written research proposal that includes a thorough literature survey providing the motivation and background for the proposal. The second part is an oral examination.

Students must pass the qualifying examination before they may take the comprehensive exam, and they must complete the comprehensive exam no later than three calendar years after passing the qualifying exam. Students who fail to meet this deadline must retake the qualifying exam. The qualifying exam and the comprehensive exam may not be taken in the same semester.

Thesis

The final requirement for completion of the PhD program is the preparation and successful defense of the thesis. This must be completed no sooner than six months but no longer than three years after the completion of the comprehensive examination.