

# PhD in Electrical and Computer Engineering

## Admission Requirements

Applications for admission are individually evaluated by the Graduate Admissions Committee. A complete set of transcripts of all undergraduate and graduate work is required before an application is evaluated for admission. In addition to the application requirements of the Office of Admissions and the policies set by the Graduate College, applicants should meet program requirements for admission. Meeting minimum requirements does not, however, guarantee admission. Program requirements are given below:

- **Prior Degrees** Applicants must have a bachelor's or master's degree in electrical engineering or computer engineering or a related field. Applicants with a bachelor's degree and an outstanding academic record are encouraged to seek admission directly to the PhD program.
- **Grade Point Average** At least 3.50/4.00.
- **Tests** Applicants are not required to provide GRE scores. Graduates of non-English-speaking countries who seek appointment as Teaching Assistants are encouraged to submit a TSE score (minimum acceptable score is 50).
- **Minimum English Competency Test Score**
  - **TOEFL iBT** 80, with subscores of Reading 19, Listening 17, Speaking 20, and Writing 21, **OR**,
  - **IELTS Academic** 6.5, with 6.0 in each of the four subscores, **OR**,
  - **PTE-Academic** 54, with subscores of Reading 51, Listening 47, Speaking 53, and Writing 56.
- **Letters of Recommendation** Three required.
- **Personal Statement** Not required.
- **Other Requirements** No limited-status admissions.
- **Deadlines** The application deadline is the same as the Graduate College deadline; the deadline for applicants who want to be considered for funding can be found on the Graduate College website.

## Degree Requirements

In addition to the Graduate College minimum requirements, students must meet the following program requirements:

- **Students must complete one of these two options.**

### I. PhD post MS

- 108 hours total, 32 hours transferred from MS
- **Credit for MS Degree:** Those having an MS degree from an accredited institution will be awarded 32 semester hours of credit towards the PhD degree requirement.

Code	Title	Hours
<b>Coursework (28 hours)</b>		
Select 16 hours at the ECE 500 level		
Excluding ECE 596, ECE 598, and ECE 599		
Remaining 12 hours at the 400 or 500 level. Non-ECE graduate coursework, completed with prior department approval.		

A Computer Engineering (CE) student may replace up to 4 hours of 500-level ECE course work with 400-level ECE coursework if the student completes the same number of hours of non-ECE coursework at 500 level in the CS department, excluding CS 595, CS 597, CS 598, CS 599. This course does count against the limit of non-ECE course work allowed.

Any course that is nearly equivalent to one taken in master's program earlier will not earn PhD credit.

Additional courses

ECE 599	Ph.D. Thesis Research (48 hours)
ECE 595	Departmental Seminar (at least two semesters)

Credit earned in ECE 596 may not be applied toward the PhD degree.

No graduation credit will be given for credit/no credit courses.

## II. Direct PhD

- 108 hours total

Code	Title	Hours
<b>Coursework (52 hours)</b>		
Select 24 hours at the ECE 500 level.		
Excluding ECE 596, ECE 598, and ECE 599.		
Remaining 28 hours, at the 400 or 500 level		
12 hours must be in ECE		
Up to 16 hours of non-ECE graduate coursework completed with prior department approval may be applied toward the PhD degree.		
A CE student may substitute up to 8 hours of 500-level ECE coursework with 400-level ECE coursework if the student completes the same number of hours of non-ECE coursework at 500 level in the CS department, excluding CS 595, CS 597, CS 598, CS 599. This course does count against the limit of non-ECE course work allowed.		
Additional courses		
ECE 599	Ph.D. Thesis Research (56 hours)	
ECE 595	Departmental Seminar (at least two semesters)	

A student may apply to receive an MS degree upon passing the preliminary examination, provided coursework required for MS degree under coursework-only option is completed.

If any one of the PhD degree requirements of passing the qualifying examination or passing the preliminary exam is not successfully completed, student may apply for transfer to the MS program for an opportunity to complete the MS degree requirements under the thesis option.

Credit earned in ECE 596 may not be applied toward the PhD degree.

No graduation credit will be given for credit/no credit courses.

## Other Requirements

- **Examinations**
  - *Departmental Qualifying Examination:* Required; written.
  - *Preliminary Examination:* Required; oral.

- **Dissertation** Required. Candidates must earn ECE 599 credit of at least 48 hours beyond master's degree and at least 56 hours beyond bachelor's degree.

## Financial Aid

There are several different forms of financial aid available to incoming graduate students: University Fellowship, Teaching Assistantships, Research Assistantships, and Tuition and Fee Waivers. Applicants will automatically be considered for all four forms of financial aid listed above. Additional information can be found on the [ECE website](#).