ELECTRICAL ENGINEERING (Ph.D.)

The Electrical Engineering Program offers Master of Science, Master of Engineering, and Ph.D. degrees. The Master of Science and Master of Engineering degrees may be earned through the Engineering Outreach off campus program. These advanced degrees offer engineering students an opportunity to strengthen their knowledge of electrical engineering by taking graduate courses that focus on advanced subject matter and by participating in research.

Qualifications for Admittance

Candidates must have a bachelor's degree in electrical engineering, with an undergraduate GPA of 3.00 or higher. International students who are required to take the TOEFL examination by the College of Graduate Studies must have a TOEFL score of at least 79 for the Internet-based Test (iBT) version, or 550 for the paper-based version. All candidates must submit scores from the general portion of the Graduate Record Examination.

Candidates who do not have a bachelor's degree in electrical engineering may be admitted to the graduate program if they meet the following minimum requirements in addition to the Electrical and Computer Engineering department and College of Graduate Studies admissions requirements.

1. A bachelor's degree in computer engineering, computer science, or another engineering discipline or in science such as mathematics or physics.
2. Demonstrated proficiency in the fundamentals of electrical engineering emphasized in the undergraduate curriculum. For each area of emphasis in electrical engineering, proficiency is demonstrated by successful completion of the following fundamental courses or their equivalents.

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<thead>
<tr>
<th>Code</th>
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<th>Hours</th>
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<tbody>
<tr>
<td>ECE 212</td>
<td>Electrical Circuits II</td>
<td>3</td>
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<tr>
<td>ECE 320</td>
<td>Energy Systems I</td>
<td>3</td>
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<tr>
<td>ECE 329</td>
<td>Background Study in Electrical Machines</td>
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<td>ECE 350</td>
<td>Signals and Systems I</td>
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<td>ECE 359</td>
<td>Background Study in Signals and Systems Analysis</td>
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<td>ECE 420</td>
<td>Energy Systems II</td>
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<td>ECE 212</td>
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<tr>
<td>ECE 330</td>
<td>Electromagnetic Theory</td>
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<td>ECE 350</td>
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<td>ECE 432</td>
<td>Propagation of Wireless Signals</td>
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<td>Engineering Statics</td>
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<td>MATH 175</td>
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<tr>
<td>MATH 275</td>
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<td>PHYS 212L</td>
<td>Laboratory Physics II</td>
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Students may petition the graduate committee for exceptions to the required background list if their advisor or interim advisor approves.

Doctor of Philosophy. Major in Electrical Engineering.

General Ph.D. requirements apply. The preliminary examination consists of both a written and an oral examination. There is no foreign language requirement. Two semesters of ECE 591, will be required for on-campus doctoral students.