## Electrical Engineering: Power Systems (Option E)

**September 2019** *(for students who entered first year in September 2017)*

### Year 2

#### Term A
- **AM 2270A**: Applied Mathematics for Engineering II
- **CS 1037A**: Computer Science Fundamentals II
- **ECE 2205A**: Electric Circuits I
- **ECE 2277A**: Digital Logic Systems
- **ECE 2240A**: Electrical Laboratory
- **Writ 2130F**: Building Better (Communication) Bridges: Rhetoric & Professional Communication for Engineers

#### Term B
- **AM 2276B**: Applied Mathematics for Elec. & Mech. Engineering III
- **ECE 2231B**: Introduction to Electronics
- **ECE 2233B**: Circuits and Systems
- **ECE 2236B**: Magnetic Circuits and Transmission Lines
- **ECE 2242B**: Principles of Design in Electrical Engineering
- **MME 2234B**: Heat Transfer and Dynamics

### Year 3

#### Term A
- **AM 3415A**: Applied Math for Electrical Engineering
- **ECE 3330A**: Control Systems
- **ECE 3332A**: Electric Machines
- **ECE 3337A**: Electronic Circuits
- **SS 2141A**: Applied Probability and Statistics for Engineers
- One 0.5-credit non-technical elective from approved list (either term)

#### Term B
- **ECE 3331B**: Introduction to Signal Processing
- **ECE 3333B**: Electric Power Systems I
- **ECE 3336B**: Electromagnetic Theory
- **ECE 3370B**: Communication Electronics I
- **ECE 3375B**: Microprocessors and Microcomputers
- **ECE 3399B**: Principles and Practices of Design of Electronic Systems

### Year 4

#### Term A
- **ECE 4416**: Electrical/Computer Engineering Project
- **ECE 4429A**: Advanced Digital Signal Processing
- **ECE 4437A**: Communications Theory
- **ECE 4457A**: Power Electronics
- **ECE 4464A**: Electric Power Systems II
- One 0.5-credit non-technical elective from approved list

#### Term B
- **ECE 4416**: Electrical/Computer Engineering Project
- **ECE 4439B**: Conventional, Renewable & Nuclear Energy
- **ECE 4456B**: Power Systems Protection
- **ES 4498G**: Engineering Ethics, Sustainable Development & the Law
- One 0.5-credit non-technical elective from approved list
- One 0.5-credit technical elective

### NOTES:

**Non-technical electives:**
Please choose 1.0 credits (one 1.0-credit or two 0.5-credit courses) from the 1000 level and one 0.5-credit course from the 2000 (or higher) level.

**Technical Electives**
Some technical electives may not be offered in a given academic year. Consult the Department for accurate listing.

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>ECE 3349A/B</td>
<td>Introduction to VLSI</td>
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<tr>
<td>ECE 3380A/B</td>
<td>Advanced Digital Systems</td>
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<td>ECE 4430A/B</td>
<td>Selected Topics in Electrical Engineering I</td>
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<tr>
<td>ECE 4431A/B</td>
<td>Selected Topics in Electrical Engineering II</td>
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<td>ECE 4432A/B</td>
<td>Radiation and Propagation</td>
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<td>ECE 4433A/B</td>
<td>Digital Communications Systems</td>
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<tr>
<td>ECE 4438A/B</td>
<td>Advanced Image Processing &amp; Analysis</td>
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<tr>
<td>ECE 4445A/B</td>
<td>Introduction to Digital Image Processing</td>
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<tr>
<td>ECE 4451A/B</td>
<td>Advanced Topics in Wireless Communications</td>
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<tr>
<td>ECE 4455A/B</td>
<td>Biomedical Systems Analysis</td>
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<td>ECE 4460A/B</td>
<td>Real-Time Embedded Systems</td>
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<td>ECE 4468A/B</td>
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<td>ECE 4469A/B</td>
<td>Applied Control Systems</td>
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<td>MME 4452A/B</td>
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<td>MME 4473A/B</td>
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<td>MME 4482A/B</td>
<td>Fundamentals of MEMS</td>
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<td>MME 4487A/B</td>
<td>Mechatronic System Design</td>
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