## Electrical Engineering: Wireless Communications (Option C)

**September 2019** *(for students who entered first year in September 2016)*

### 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 II
- ECE 2231B  Introduction to Electronics
- ECE 2233B  Circuits and Systems
- ECE 2236B  Magnetic Circuits and Transmission Lines
- ECE 2241B  Electrical Laboratory II
- 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 4432A  Radiation and Propagation
- ECE 4437A  Communications Theory
- ECE 4436A  Networking: Principles, Protocols and Architecture
- One 0.5-credit non-technical elective from approved list

#### Term B
- ECE 4416  Electrical/Computer Engineering Project
- ECE 4433B  Digital Communications Systems
- ES 4498G  Engineering Ethics, Sustainable Development & the Law
- Two 0.5-credit technical electives
- One 0.5-credit non-technical elective from approved list

### 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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<tr>
<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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<tr>
<td>ECE 4438A/B</td>
<td>Advanced Image Processing &amp; Analysis</td>
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<tr>
<td>ECE 4439A/B</td>
<td>Conventional, Renewable &amp; Nuclear Energy</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 4456A/B</td>
<td>Power Systems Protection</td>
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<td>ECE 4457A/B</td>
<td>Power Electronics</td>
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<td>ECE 4460A/B</td>
<td>Real-Time Embedded Systems</td>
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<tr>
<td>ECE 4464A/B</td>
<td>Electric Power Systems II</td>
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<td>ECE 4468A/B</td>
<td>Systems Optimization</td>
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<td>ECE 4469A/B</td>
<td>Applied Control Systems</td>
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<td>MME 4452A/B</td>
<td>Robotics and Manufacturing Automation</td>
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<td>MME 4473A/B</td>
<td>Computer Integrated Manufacturing</td>
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<td>MME 4482A/B</td>
<td>Fundamentals of MEMS</td>
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<tr>
<td>MME 4487A/B</td>
<td>Mechatronic System Design</td>
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