Computer Engineering: Electronic Devices for Ubiquitous Computing (Option A)

September 2019 (for students who entered first year in September 2016 or 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 2240A Electrical Laboratory
ECE 2277A Digital Logic Systems
Writ 2130F Building Better (Communication) Bridges: Rhetoric & Professional Communication for Engineers

Term B
ECE 2231B Introduction to Electronics
ECE 2233B Circuits and Systems
ECE 2242B Principles of Design in Electrical Engineering
ECE 3375B Microprocessors and Microcomputers
ECE 3380B Advanced Digital Systems

Year 3

Term A
CS 2211A Software Tools and Systems Programming
Math 2151A Discrete Structures for Engineering
ECE 3330A Control Systems
ECE 3349A Introduction of VLSI
ECE 3389A Computer System Design
One 0.5 non-technical elective

Term B
CS 2210B Data Structures and Algorithms
ECE 2236B Magnetic Circuits and Transmission Lines
ECE 3331B Introduction to Signal Processing
ECE 3390B Hardware/Software Co-Design
SE 2203b Software Design
SS 2143B Applied Statistics and Data Analysis for Engineers

Year 4

Term A
ECE 4415 Computer Engineering Design Project
ECE 4436A Networking: Principles, Protocols & Architecture
ECE 4437A Communications Theory
SE 3313A Operating Systems for Software Engineering
One 0.5-credit non-technical elective from approved list
One 0.5-credit technical elective

Term B
ECE 4415 Computer Engineering Design Project
ECE 4460B Real-Time and Embedded Systems
ES 4498G Engineering Ethics, Sustainable Development & the Law
SE 3314B Computer Networks Applications
One 0.5-credit technical elective
One 0.5-credit non-technical elective from approved list

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>ECE 3332A/B</td>
<td>Electric Machines</td>
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<tr>
<td>ECE 3333A/B</td>
<td>Electric Power Systems I</td>
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<tr>
<td>ECE 3337A/B</td>
<td>Electronic Circuits</td>
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<tr>
<td>ECE 3370A/B</td>
<td>Communication Electronics I</td>
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<tr>
<td>ECE 4429A/B</td>
<td>Advanced Digital Signal Processing</td>
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<td>ECE 4438A/B</td>
<td>Advanced Image Processing and Analysis</td>
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<td>ECE 4445A/B</td>
<td>Introduction to Digital Image Processing</td>
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<tr>
<td>ECE 4455A/B</td>
<td>Biomedical Systems Analysis</td>
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<tr>
<td>ECE 4469A/B</td>
<td>Applied Control Systems</td>
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Maximum one of:

<table>
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<tbody>
<tr>
<td>CS 3319A/B</td>
<td>Databases I</td>
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<tr>
<td>CS 3340A/B</td>
<td>Analysis of Algorithms I</td>
</tr>
<tr>
<td>CS 3346A/B</td>
<td>Artificial Intelligence I</td>
</tr>
</tbody>
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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.