

## Electrical Engineering (Option A)

September 2021 (for students who entered first year in September 2019)

<p><b>Year 2</b></p> <p><b>Term A</b></p> <p>AM 2270A Applied Mathematics for Engineering II          CS 1027A 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 &amp; Professional Communication for Engineers</p> <p><b>Term B</b></p> <p>AM 2276B Applied Mathematics for Elec. &amp; 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</p> <p><b>Year 3</b></p> <p><b>Term A</b></p> <p>NMM 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)</p> <p><b>Term B</b></p> <p>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</p> <p><b>Year 4</b></p> <p><b>Term A</b></p> <p>ECE 4416 Electrical/Computer Engineering Project          ECE 4429A Advanced Digital Signal Processing          ECE 4437A Communications Theory          One 0.5-credit non-technical elective from approved list          Two 0.5-credit technical electives</p> <p><b>Term B</b></p> <p>ECE 4416 Electrical/Computer Engineering Project          ELI 4110G Engineering Ethics, Sustainable Development &amp; the Law          One 0.5-credit non-technical elective from approved list          Three 0.5-credit technical electives</p>	<p><b>NOTES:</b></p> <p><b>Non-technical electives:</b>          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.</p> <p><b>Technical Electives</b>          Some technical electives may not be offered in a given academic year. Consult the Department for accurate listing.</p> <table border="1"> <tr><td>ECE 3349A/B</td><td>Introduction to VLSI</td></tr> <tr><td>ECE 3380A/B</td><td>Advanced Digital Systems</td></tr> <tr><td>ECE 4430A/B</td><td>Selected Topics in Electrical Engineering I</td></tr> <tr><td>ECE 4431A/B</td><td>Selected Topics in Electrical Engineering II</td></tr> <tr><td>ECE 4432A/B</td><td>Radiation and Propagation</td></tr> <tr><td>ECE 4433A/B</td><td>Digital Communications Systems</td></tr> <tr><td>ECE 4436A/B</td><td>Networking: Principles, Protocols and Architecture</td></tr> <tr><td>ECE 4438A/B</td><td>Advanced Image Processing &amp; Analysis</td></tr> <tr><td>ECE 4439A/B</td><td>Conventional, Renewable &amp; Nuclear Energy</td></tr> <tr><td>ECE 4445A/B</td><td>Introduction to Digital Image Processing</td></tr> <tr><td>ECE 4451A/B</td><td>Advanced Topics in Wireless Communications</td></tr> <tr><td>ECE 4455A/B</td><td>Biomedical Systems Analysis</td></tr> <tr><td>ECE 4456A/B</td><td>Power Systems Protection</td></tr> <tr><td>ECE 4457A/B</td><td>Power Electronics</td></tr> <tr><td>ECE 4460A/B</td><td>Real-Time Embedded Systems</td></tr> <tr><td>ECE 4464A/B</td><td>Electric Power Systems II</td></tr> <tr><td>ECE 4468A/B</td><td>Systems Optimization</td></tr> <tr><td>ECE 4469A/B</td><td>Applied Control Systems</td></tr> <tr><td>MME 4452A/B</td><td>Robotics and Manufacturing Automation</td></tr> <tr><td>MME 4473A/B</td><td>Computer Integrated Manufacturing</td></tr> <tr><td>MME 4482A/B</td><td>Fundamentals of MEMS</td></tr> <tr><td>MME 4487A/B</td><td>Mechatronic System Design</td></tr> <tr><td>SE 4460A/B</td><td>Machine Learning &amp; Design</td></tr> </table>	ECE 3349A/B	Introduction to VLSI	ECE 3380A/B	Advanced Digital Systems	ECE 4430A/B	Selected Topics in Electrical Engineering I	ECE 4431A/B	Selected Topics in Electrical Engineering II	ECE 4432A/B	Radiation and Propagation	ECE 4433A/B	Digital Communications Systems	ECE 4436A/B	Networking: Principles, Protocols and Architecture	ECE 4438A/B	Advanced Image Processing & Analysis	ECE 4439A/B	Conventional, Renewable & Nuclear Energy	ECE 4445A/B	Introduction to Digital Image Processing	ECE 4451A/B	Advanced Topics in Wireless Communications	ECE 4455A/B	Biomedical Systems Analysis	ECE 4456A/B	Power Systems Protection	ECE 4457A/B	Power Electronics	ECE 4460A/B	Real-Time Embedded Systems	ECE 4464A/B	Electric Power Systems II	ECE 4468A/B	Systems Optimization	ECE 4469A/B	Applied Control Systems	MME 4452A/B	Robotics and Manufacturing Automation	MME 4473A/B	Computer Integrated Manufacturing	MME 4482A/B	Fundamentals of MEMS	MME 4487A/B	Mechatronic System Design	SE 4460A/B	Machine Learning & Design
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