Western Engineering

Electrical Engineering (Option A)

September 2019 *(for students who entered first year prior to 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
ES 2211F	Engineering Communications

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 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

Year 4

Term A

BUS 2299E	Business for Engineers
ECE 4416	Electrical/Computer Engineering Project
ECE 4429A	Advanced Digital Signal Processing
ECE 4437A	Communications Theory

Two 0.5-credit technical electives

Term B

BUS 2299E	Business for Engineers
ECE 4416	Electrical/Computer Engineering Project
ES 4498G	Engineering Ethics, Sustainable Development & the Law

Three 0.5-credit technical electives

NOTES:

Technical Electives

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

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