

## Electrical Engineering (Option A)

September 2018 (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
Writing 2130f/g	Building Better (Communication) Bridges: Rhetoric & Professional Communication for Engineers

#### Term B

AM 2276b	Applied Mathematics for Elec. & Mech Eng. 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 Mathematics for Electrical Engineering II
ECE 3330a	Control Systems
ECE 3332a	Electric Machines
ECE 3337a	Electronic Circuits
SS 2141a	Applied Probability and Statistics for Engineers
0.5 non-technical elective from the approved list (either a or b 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
0.5 non-technical elective from the approved list	
Two 0.5-course technical electives from the approved list	

#### Term B

ECE 4416	Electrical/Computer Engineering Project
ES 4498g	Engineering Ethics, Sustainable Development and the Law
0.5 non-technical elective from the approved list	
Three 0.5-course technical electives from the 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 from the 2000+ level.

#### **Technical Elective List:**

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

ECE 3349a/b	Introduction of VLSI
ECE 3380a/b	Advanced Digital Systems
ECE 4430a/b	Selected Topics in Electrical Eng. I
ECE 4431a/b	Selected Topics in Electrical Eng. II
ECE 4432a/b	Radiation and Propagation
ECE 4433a/b	Digital Communications Systems
ECE 4436a/b	Networking: Principles, Protocols and Architecture
ECE 4438a/b	Adv. Image Processing & Analysis
ECE 4439a/b	Conventional, Renewable and Nuclear Energy
ECE 4445a/b	Intro. 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 and 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 Manu. Automation
MME 4473a/b	Computer Integrated Manufacturing
MME 4482a/b	Fundamental of MEMS
MME 4487a/b	Mechatronic System Design