

ECE Technical Elective List

SYM	NUM	TITLE	Communication	Computing & Software	Controls & Robotics	Digital Design	Electromagnetics	Image & Info Processing	Materials	Microelectronics & Electronic Systems	Power & High Voltage
			CM	CS	CR	DD	EM	IP	MT	ME	PW
ECE	3213	Solid State Electronics (<i>ECE 3244</i>)							X	X	
ECE	3253	Electronics II (<i>ECE 3244</i>)								X	
ECE	4193	Automotive Engineering								X	
ECE	4243	Physical Electronics (<i>ECE 3424</i>)							X	X	
ECE	4263	Principles of VLSI Design (<i>ECE 3724 & 3424</i>)				X				X	
ECE	4273	Microelectronics Device Design (<i>ECE 3424</i>)							X	X	
ECE	4283	Microelectronics Process Design (<i>ECE 3424</i>)							X	X	
ECE	4293	Nano-electronics (<i>ECE 3213, PH 2233 or PH 3613</i>)							X	X	
ECE	4313	Antennas (<i>ECE 3323</i>)	X				X				
ECE	4323	Electromagnetic Compatibility (<i>ECE 3323</i>)					X				
ECE	4333	RF and Microwave Theory (<i>ECE 3323</i>)	X				X				
ECE	4413	Digital Signal Processing (<i>ECE 3443</i>)	X	X				X			
ECE	4423	Introduction to Remote Sensing (<i>senior standing</i>)					X	X			
ECE	4433	Introduction to Radar (<i>jr., sr. or graduate standing</i>)		X			X	X		X	
ECE	4443	Sensor Processing for Avs (<i>ECE 3433</i>)		X	X		X	X		X	
ECE	4613	Power Transmission Systems (<i>ECE 3614</i>)					X				X
ECE	4633	Power Distribution Systems (<i>ECE 3614</i>)									X
ECE	4643	Power Systems Relaying & Control (<i>ECE 3614</i>)			X						X
ECE	4653	Introduction to Power Electronics (<i>ECE 3614 & 3244</i>)			X					X	X
ECE	4663	Insulation Coordination in Electric Power Systems (<i>ECE 3614</i>)							X		X
ECE	4673	Fundamentals of High Voltage Engineering (<i>ECE 3614</i>)							X		X
ECE	4713	Computer Architecture (<i>ECE 3724</i>)		X		X					
ECE	4723	Embedded Systems (<i>ECE 3724 and ECE 3244 or CSE 4153</i>)		X				X			
ECE	4743	Digital Systems Design (<i>ECE 3724</i>)		X		X					
ECE	4753	Intro to Robotics (<i>ECE 3443</i>)			X						
ECE	4763	Information & Computer Security (<i>CSE 4733</i>)	X	X							
ECE	4793	Literate Programming (<i>ECE 3724</i>)									
ECE	4813	Communications Theory (<i>ECE 3443</i>)	X								
ECE	4823	Digital Communications (<i>ECE 4813</i>)	X	X				X			
ECE	4833	Data Communications & Computer Networks (<i>CSE 1384 & ECE 3724</i>)	X	X							
ECE	4913	Feedback Control Systems I (<i>ECE 3443</i>)			X						
ECE	4923	Feedback Control Systems II (<i>ECE 3443</i>)		X	X			X			
ECE	4933	State Space Design & Instrumentation (<i>ECE 3443</i>)			X			X			
ECE	4943	Automation, Data Acquisition and PLCs (<i>ECE 3443</i>)		X	X						
ECE	4990	Math Foundations of Machine Learning (<i>MA 3113</i>)		X				X			
ECE	4990	Intro to Quantum Computing (<i>PH 2223, MA 3113 and either PH 2233 or ECE 3443</i>)									
ECE	4990	Microwave Remote Sensing (<i>ECE 3323</i>)	X				X	X			
ECE	4990	Bio-Nano-electronics (<i>ECE 3213</i>)							X	X	
ECE	4990	Power Systems Grounding (<i>ECE 3614</i>)									X