Electrical and Computer Engineering

Undergraduate Elective Course Offering Plan

Courses marked with "X" are intended to be offered in the corresponding terms, barring unforeseen circumstances. Please check back periodically for updates to course offerings in the upcoming terms.

Course Numbers	Course Name	Spring 2023	Summer 2023	Fall 2023	Spring 2024	Summer 2024	Fall 2024
ECGR 3090	Special Topics: Advanced Baseball Analytics (OTE)			X			
ECGR 4090	Special Topics: Internet of Things Devices & Systems	X					
ECGR 4090	Special Topics: Utility Applications of Power Electronics			X			X
ECGR 4090	Special Topics: Power Systems Protection (P&E)				X		
ECGR 4100	Research Tools and Techniques in Computer Engineering			X			X
ECGR 4101	Advanced Embedded Systems			X			X
ECGR 4103	Machine Vision, AI, and Image Processing			X			
ECGR 4104	Computational Methods in Power Systems (P&E)						X
ECGR 4105	Introduction to Machine Learning (ML)	X		X	X		X
ECGR 4106	Real-Time Machine Learning (ML)	X			X		
ECGR 4111	Control Systems Theory I			X			
ECGR 4112	Principles of Digital Control Systems	X					
ECGR 4115	Convex Optimization and AI Applications (ML)			X			X
ECGR 4116	Artificial Intelligence for Biomedical Applications (ML)	X					X
ECGR 4117	AI for Robotics and Automation (ML)			X			X
ECGR 4121	Antennas			X			
ECGR 4122	Acoustics						X
ECGR 4125	Foundation of Optical Engineering	X			X		
ECGR 4127	Machine Learning for the Internet of Things (ML)	X			X		
ECGR 4131	Linear Integrated Electronics			X			X
ECGR 4132	Analog Integrated Circuits Design	X					
ECGR 4141	Power System Analysis I (P&E)			X			X
ECGR 4142	Power System Analysis II (P&E)	X			X		
ECGR 4143	Electrical Machinery				X		
ECGR 4144	Power Electronics I (P&E)			X			X
ECGR 4146	Introduction to VHDL	X			X		

Course Numbers	Course Name	Spring 2023	Summer 2023	Fall 2023	Spring 2024	Summer 2024	Fall 2024
ECGR 4161	Introduction to Robotics	X	X		X	X	
ECGR 4171	Introduction to Energy Systems (P&E)			X			X
ECGR 4172	Energy Markets (P&E)	X			X		
ECGR 4181	Computer Architecture	X		X			X
ECGR 4187	Data Communications and Networking II			X			X
ECGR 4189	Cloud Native Application Architecture	X			X		
ECGR 4190	Power Generation: Operation and Control (P&E)	X			X		

Key:

(OTE) = Other Technical Elective option only

(P&E) = Power & Energy Concentration option

(ML) = Machine Learning Concentration option