

Five Year ECE Course Offerings Plan

Course	Course Name	Fall 2015	Spring 2016	Sum2016	Fall 2016	Spring 2017	Sum2017
ECGR2103	Computer Utilization in C++	X	X		X	X	
ECGR2103	Computer Utilization in C++	X			X		
ECGR2104	Computer Engineering Programming		X	X		X	X
ECGR2111	Network Theory I	X	X		X	X	
ECGR2111	Network Theory I	X			X		
ECGR2112	Network Theory II	X	X	X	X	X	X
ECGR2112	Network Theory II		X			X	
ECGR2155	Instrumentation and Networks Lab	X	X				
ECGR2156	Logic and Networks Lab	X	X	X			X
ECGR2161	Basic Electrical Engineering I	X					
ECGR2161	Basic Electrical Engineering I						
ECGR2181	Digital Logic	X	X		X	X	
ECGR2181	Digital Logic	X			X		
ECGR2252	Elec Engineering Design I		X		X	X	
ECGR2255	Digital Design Lab						
ECGR3090	Special Topics: Renewable Energy		X			X	
ECGR3111	Signals and Systems	X	X		X	X	
ECGR3111	Signals and Systems	X			X		
ECGR3112	Systems II	X	X		X	X	
ECGR3121	Intro Electromagnetic Fields	X	X		X	X	
ECGR3122	Electromagnetic Waves		X	X		X	X
ECGR3123	Data Communications I		X			X	
ECGR3131	Fund Electronics & Semiconduct	X	X		X	X	
ECGR3131	Fund Electronics & Semiconduct	X					
ECGR3132	Electronics		X	X		X	X
ECGR3132	Electronics		X			X	
ECGR3133	Solid State Microelectronics I	X	X		X	X	
ECGR3142	Electromagnetic Devices		X	X		X	X
ECGR3155	Systems & Electronics Lab						
ECGR3156	Electromag & Elec Devices Lab	X					
ECGR3156-A	Electromag Devices Lab						
ECGR3157	Elec Engineering Design II	X	X		X	X	
ECGR3159	Professional Practice	X	X		X	X	
ECGR3181	Digital Logic II	X	X	X			
ECGR3183	Comp Org	X	X		X	X	

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ECGR3253	Senior Design I (Fall 2016- 4241/4251)	X	X		X	X	
ECGR3254	Senior Design II (Fall 2016- 4242/4252)	X	X		X	X	
ECGR3695	ECGR Educ Coop Seminar	X	X	X	X	X	X
ECGR4090	Special Topics: Practical Power Systems, Electronics, and Machines					X	
ECGR4090/5090	Special Topics: Technology Innovation and Entrepreneurship						
ECGR4090/5090	Special Topics: 2D3D Imaging						
ECGR4090/5090	Special Topics: Analog System Design						
ECGR4090/5090	Special Topics: Electronic Music Synthesis	X			X		
ECGR4090/5090	Special Topics: Fundamentals of Modern Science I						
ECGR4090/5090	Special Topics: Fundamentals of Modern Science II						
ECGR4090/5090	Special Topics: Science and Technology of PV		X			X	
ECGR4090/5090	Special Topics: Research Tools & Tech in Comp Eng	X			X		
ECGR4090/5090	Special Topics: Utility Applications of Power Electronics	X			X		
ECGR4090/5090	Special Topics: Energy Markets (Crosslist with SEGR4962/EMGT5962)						
ECGR4090/5090	Special Topics: Power System Protection						
ECGR4090/5090 - > ECGR4171/5171	Special Topics: Intro to Energy Systems (Crosslist with SEGR4090/EGMT5090 -> SEGR4961/EGMT5961)	X			X		
ECGR4101/5101	Embedded Systems	X	X		X	X	
ECGR4101/5101	Embedded Systems				X		
ECGR4102/5102	Engineering Simulation						
ECGR4103/5103	Applied Computer Graphics						
ECGR4104/5104	Computational Methods in Power Systems/Power Gen II						
ECGR4111/5411	Control Systems I	X			X		
ECGR4112/5412	Control Systems Theory II		X			X	
ECGR4121/5121	Antennas				X		
ECGR4123/5191	Analog & Digital Communications	X	X		X	X	
ECGR4124/5124	Digital Signal Processing	X	X		X	X	
ECGR4125/5125	Found of Optical Engineering		X			X	
ECGR4131/5431	Linear Integrated Electronics	X					
ECGR4132/5132	Analog Int Circuits Design						
ECGR4134/5192	Solid State II	X			X		
ECGR4136/5136	Semiconductor Optoelectronic Materials and Devices		X			X	
ECGR4138/5138	Electronic Thin Film Materials and Devices						
ECGR4140/5140	Intro to VLSI Processing						

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ECGR4141/5193	Power Systems I	X			X		
ECGR4142/5194	Power Systems II		X			X	
ECGR4143/5195	Elec Machines						
ECGR4144/5144	Power Electronics I	X					
ECGR4146/5146	VHDL	X	X		X	X	
ECGR4149/5143	Dynamics and Trans. Analysis of Power Systems						
ECGR4161/5196	Intro to Robotics						
ECGR4165/5165	Laser Electronics I						
ECGR4181/5181	Comp Arch		X			X	
ECGR4182/5182	Digital System Testing						
ECGR4187/5187	Data Communications II	X					
ECGR4190/5190	Power Generation Operation and Control I		X			X	
ECGR4199/5090	Fundamentals of Nuclear Science & Energy: Contemporary Overview						
ECGR4231/5090	Sensors & Actuators						
ECGR4261/5260	Microwave Circuit Design I	X					
ECGR4422/5122	Random Processes	X			X		
ECGR4433/5133	VLSI System Design						
ECGR5112/4090	Nonlinear Analysis						
ECGR6090/8090	Special Topics: Embedded Signal Processing*	X					
ECGR6090/8090	Special Topics: Adv Microwave Systems						
ECGR6090/8090	Special Topics: Multidimensional Stochastic Signal Processing						
ECGR6090/8090	Special Topics: Topics in Wireless Networks						
ECGR6090/8090	Special Topics: Microwave Circuits and Metamaterials						
ECGR6090/8090	Special Topics: Applied Comp. EM						
ECGR6090/8090	Special Topics: Microwave Circuit Design II						
ECGR6090/8090	Optical Properties of Materials (OPTI6105/8105)						
ECGR6090/8090	Special Topics: Applied Quantum Mechanics	X					
ECGR6090/8090	Special Topics: Integrated Photonics	X			X		
ECGR6090/8090	Special Topics: Science and Technology of Photovoltaics						
ECGR6090/8090	Special Topics: Solid State Lighting		X				
ECGR6090/8090	Special Topics: Solid State Materials		X			X	
ECGR6090/8090	Special Topics: Mobile Device and Big Data	X			X		
ECGR6090/8090	Special Topics: Adv Reconf Computing						
ECGR6090/8090	Special Topics: Fault-Tolerant Systems				X		
ECGR6090/8090	Special Topics: Real Time OS	X	X		X	X	
ECGR6090/8090	Advanced Embedded Operating Systems	X			X		

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ECGR6090/8090	Special Topics: Reconfig Computing	X			X		
ECGR6090/8090	Special Topics: Modeling and Performance Evaluation of Comput	X					
ECGR6090/8090	Special Topics: Symmetrical Components						
ECGR6090/8090 - > ECGR6173/8173	Power Quality	X			X		
ECGR6104/8104	Fabrication of Nanomaterials (NANO8104/MEGR7/8104)		X		X	X	
ECGR6111/8111	Linear Systems Theory						
ECGR6114/8114	Digital Signal Processing II						
ECGR6115/8115	Optimal Control Theory I						
ECGR6117/8117	Multivariable controls						
ECGR6118/8118	Image Processing						
ECGR6119/8119	Applied Artificial Intelligence	X					
ECGR6120/8120	Wireless Communications						
ECGR6121/8121	Advanced Theory of Communications I						
ECGR6127/8127	Medical Signal Processing						
ECGR6132/8132	Adv Semiconductor Device Physics (New: Appl Quantum Mechanics)						
ECGR6133/8133	MOS Physics and Tech (New: Solid State Materials)						
ECGR6141/8141	Power System Relaying	X			X		
ECGR6144/8144	Electric Power Distribution Systems I		X			X	
ECGR6145/8145	Electric Power Distribution Systems 2	X			X		
ECGR6146/8146	Smart Grid: Characteristics, Design, and Analysis	X			X		
ECGR6147/8147	Power System Stability and Control		X			X	
ECGR6185/8185	Adv Embedded		X			X	
ECGR6187/8187	Modeling and Analysis of Comm. Sys.		X			X	
ECGR6188/8188	Fundamentals of Wireless Sys.	X			X		
ECGR6189/8189	Wireless Sensor Networks						
ECGR6197/8197	Power Electronics II						
ECGR6198/8198	Design of Renewable Energy Electromagnetic Devices						
ECGR6199/8199	Dyn. & Cont. AC Drives						
ECGR6264/8264	RF Design						
ENGR1202	Intro Engr Pract & Prin II	X	X		X	X	
ENGR3295	Multidisciplinary Prof Dvlpmnt	X	X		X	X	

Fall 2017	Spring 2018	Sum2018	Fall 2018	Spring 2019	Sum2019	Fall 2019
X	X		X	X		X
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