

Department of Electrical and Computer Engineering  
Upper Division Specialization

As part of your graduation requirements, you must choose an upper division specialization consisting of three lecture courses and one laboratory, all from the same specialization.

<b>Communications</b>	<b>Controls</b>
You must take EE 4200 and choose two courses from the list below. In addition, select one of the two labs listed.	You must take EE 4600, EE 4610, EE 4689, and choose one course below.
EE 4210 Coding for Communications	EE 3420 Introduction to Autonomous Robotic Systems
EE 4220 Digital Signal Processing	EE 4620 Modern Control Systems
EE 4230 Antennas	EE 4630 Machine Learning Principles and Applications
EE 4240 Fiber Optics	
EE 4400 Data Communications & Networking	
EE 4630 Machine Learning Principles and Applications	
select either:	
EE 3209 Communications Lab	
or EE 4229 Digital Signal Processing Lab	
<b>Computers</b>	<b>Biomedical</b>
You must take EE 4440 and choose two other courses from the list below.	You must take EE 4810 and EE 4820, and choose one more course from the list below.
EE 4400 Data Communications & Networking	EE 4220 Digital Signal Processing
EE 4450 Embedded Architectures	EE 4450 Embedded Architectures
EE 4480 Advanced Dig Design	EE 4600 Applied Control System Design & Simulation
EE 4630 Machine Learning Principles and Applications	EE 4610 Digital Control Systems
select either:	EE 4710 Analog Integrated Circuits
EE 3001 Numerical Analysis and Modeling using MATLAB*	select either:
or EE 4229 Digital Signal Processing Lab	EE 3001 Numerical Analysis and Modeling using MATLAB*
or EE 4459 System Design Tools and Implementation Lab **	or EE 4229 Digital Signal Processing Lab
<b>Power</b>	<b>Electronics</b>
You must take EE 4300, EE 4310, and EE 3309 (lab). In addition, select one course from the list below:	You must take EE 3710, EE 3720, and EE 3709 (lab). In addition, select one course from the list below:
EE 4320 Electric Power Distribution	EE 4330 Power Electronics
EE 4330 Power Electronics	EE 4710 Analog Integrated Circuits