Department of Electrical and Computer Engineering
Upper Division Specialization (Effective fall 2024)
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.

Communications	Controls
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 4689, and choose two courses below.
EE 4220 Digital Signal Processing	EE 3420 Introduction to Autonomous Robotic Systems
EE 4230 Antennas	EE 4130 Systems Engineering
EE 4400 Data Communications & Networking	EE 4610 Digital Control Systems
EE 4630 Machine Learning Principles and Applications	EE 4620 Modern Control Systems
select either:	EE 4630 Machine Learning Principles and Applications
EE 3209 Communications Lab	
or EE 4229 Digital Signal Processing Lab	

Computers	Biomedical
EE 3420 Introduction to Autonomous Robotic Systems	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 4440 Computer Organization	EE 4450 Embedded Architectures
EE 4450 Embedded Architectures	EE 4600 Applied Control System Design & Simulation
EE 4480 Advanced Dig Design	EE 4610 Digital Control Systems
EE 4630 Machine Learning Principles and Applications	EE 4710 Analog Integrated Circuits
select either:	select either:
EE 4229 Digital Signal Processing Lab	EE 4229 Digital Signal Processing Lab
or EE 4459 System Design Tools and Implementation Lab	or EE 4459 System Design Tools and Implementation Lab
	or EE 4689 Control System Lab

Power	Electronics
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