

**APPROVED LIST OF ELECTIVES FOR EE MAJORS (LAST UPDATED ON OCTOBER 17, 2023)**

DEPARTMENT	COURSES	PRE AND CO REQUISITES
<b>Electrical Engineering</b>	<a href="#">All EE 4490 courses</a>	Varies, check current AY Catalog
	<a href="#">EE 3405:Electronic Materials</a>	
	<a href="#">EE 3398:Internship</a>	
	<a href="#">EE 3602:Electric Power Systems</a>	
	<a href="#">EE 3603:Electronic Power Conversion</a>	
	<a href="#">EE 3706:Computer Networking</a>	
	<a href="#">EE 4400:Directed Study</a>	
	<a href="#">EE 4605:Electromagnetic and Microwave Applications</a>	
	<a href="#">EE 4705:Digital Signal Processing</a>	
	<a href="#">EE 4706:Image Processing and Pattern Analysis</a>	
<b>Various Departments</b>	<a href="#">ENGR 3131: Strength of Materials</a>	ENGR 2214, MATH 2202
	<a href="#">ENGR 3501: Fundamentals of Nuclear Engineering</a>	MATH 2202, ES, PHYS 2212, PHYS 2212L
	<a href="#">ENGR 3325: Engineering Economic Analysis</a>	[ MATH 1190 or (MATH 1179 + MATH 1189) ] and ES
	<a href="#">ENGR 3410: Fundamentals of Biomedical Engineering</a>	ES
	<a href="#">ENGR 3601: Fundamentals of Renewable Energy</a>	ES
	<a href="#">ENGR 3602:Energy Efficiency</a>	ES
	<a href="#">ENGR 4601:Fundamentals of Solar Power</a>	ES
	<a href="#">ENGR 4602:Wind Power</a>	ES
	<a href="#">ENGR 4603:Geothermal and Bioenergy Systems</a>	ES
	<a href="#">ENGR 4604:Distributed Generation &amp; Smart Grids</a>	ES
	<a href="#">ENGR 3411:Biomechanics for Engineers</a>	ES
	<a href="#">ENGR 3412:Biomedical Circuit Applications</a>	ES
	<a href="#">ENGR 3603:Hydrokinetic Energy</a>	ES
	<a href="#">ENGR 3801:Aerodynamics</a>	MATH 2202, ES
	<a href="#">ENGR 4402:Engineering Ethics</a>	ES
<a href="#">ENGR 3250: Project Management for Engineers</a>	(ISYE 2600 or STAT 2332) and ES	
<b>Robotics &amp; Mechatronics</b>	<a href="#">MTRE 4010: Advanced Controls</a>	[ (MTRE 4001 + MTRE 4002L) or EE 4201 or (ME 3501 and ME 4501) ] and MATH 3260 and ES
	<a href="#">MTRE 4200: Robotics Analysis and Synthesis</a>	[ (MTRE 4001 and MTRE 4002L) or EE 4201 or (ME 3501 and ME 4501 and ME 1311) ] and (MATH 2203 or MATH 3260) and ES
	<a href="#">MTRE 4710: Instruments and Controls</a>	EE 2501 and [ (MTRE 3610 and MTRE 3610L) or EE 4201 or (ME 3501 and ME 4501) ] and MATH 2306 and ES Concurrent: (MTRE 3110 or ENGR 3343 or EE 3701 or CPE 4010)
<b>Computer Engineering</b>	<a href="#">CPE 3020: VHDL Design with FPGAs</a>	EE 2501 and ES
	<a href="#">CPE 3030: Advanced Embedded Design</a>	ES, Concurrent: CPE 3000 or EE 3501
	<a href="#">CPE 3500: Embedded Digital Signal Processing</a>	(CPE 3000 or EE 3501) and ES
	<a href="#">CPE 4010: Sensors, Actuators and Integration</a>	(CPE 3000 or EE 3501), and EE 3401, and PHYS 2212, and ES
	<a href="#">CPE 4750: Introduction to Internet of Things</a>	CPE 3000 or EE 3501

	<a href="#">CPE 4903: Neural Networks &amp; Machine Learning</a>	CSE 1321, CSE 1321L, MATH 2202 and ES
<b>Physics</b>	<a href="#">PHYS 3230: Optics</a>	PHYS 2212, PHYS 2212L
	<a href="#">PHYS 3710: Modern Physics</a>	PHYS 2212, PHYS 2212L
<b>Industrial &amp; Systems Engr.</b>	<a href="#">ISYE 3600: Probability and Statistics II</a>	(ISYE 2600 or STAT 2332 or MATH 3332) and MATH 2202
	<a href="#">ISYE 4500: System Modeling &amp; Simulation</a>	(ISYE 2600 or STAT 2332) and ES