

# ECE Electives

## ECE Elective

Code	Title	Hours
ECE 402	Communications Engineering	3
ECE 403	Electronics Engineering	3
ECE 404	Introduction to Solid-State Devices	3
ECE 406/506	Architecture Of Parallel Computers	3
ECE 407	Introduction to Computer Networking	3
ECE 418/518	Wearable Biosensors and Microsystems	3
ECE 420	Wireless Communication Systems	3
ECE 421	Introduction to Signal Processing	3
ECE 422	Transmission Lines and Antennas for Wireless	3
ECE 423	Introduction to Photonics and Optical Communications	3
ECE 424/524	Radio System Design	3
ECE 426	Analog Electronics Laboratory	3
ECE 434	Fundamentals of Power Electronics	3
ECE 436	Digital Control Systems	3
ECE 442	Introduction to Integrated Circuit Technology and Fabrication	3
ECE 451	Power System Analysis	3
ECE 452/552	Renewable Electric Energy Systems	3
ECE 453	Electric Motor Drives	3
ECE 455	Industrial Robot Systems	3
ECE 456/556	Mechatronics	3
ECE 460/560		3
ECE 461/561	Embedded System Analysis and Optimization	3
ECE 463/563	Microprocessor Architecture	3
ECE 464/564	ASIC and FPGA Design with Verilog	3
ECE 466/566	Compiler Optimization and Scheduling	3
ECE 470	Internetworking	3
ECE 489/589	Solid State Solar and Thermal Energy Harvesting	3
ECE 492	Special Topics in Electrical and Computer Engineering	1-4
ECE 505	Neural Interface Engineering	3
ECE 510	Introduction to Signal Processing	3
ECE 513	Advanced Digital Signal Processing	3
ECE 514	Random Processes	3
ECE 515	Digital Communications	3
ECE 516	System Control Engineering	3
ECE 517	Object-Oriented Design and Development	3
ECE 522	Medical Instrumentation	3
ECE 523	Photonics and Optical Communications	3
ECE 530	Physics of Semiconductors	3
ECE 531		3
ECE 532		3
ECE 533	Power Electronics Design & Packaging	3
ECE 534	Power Electronics	3
ECE 535	Design of Electromechanical Systems	3
ECE 540	Electromagnetic Fields	3

ECE 542	Neural Networks and Deep Learning	3
ECE 544	Design Of Electronic Packaging and Interconnects	3
ECE 546	VLSI Systems Design	3
ECE 549	RF Design for Wireless	3
ECE 550	Power System Operation and Control	3
ECE 551	Smart Electric Power Distribution Systems	3
ECE 553	Semiconductor Power Devices	3
ECE 555	Autonomous Robot Systems	3
ECE 557	Principles Of MOS Transistors	3
ECE 558	Digital Imaging Systems	3
ECE 568	Conventional and Emerging Nanomanufacturing Techniques and Their Applications in Nanosystems	3
ECE 570	Computer Networks	3
ECE 573	Internet Protocols	3
ECE 574	Computer and Network Security	3
ECE 575	Introduction to Wireless Networking	3
ECE 577	Switched Network Management	3
ECE 581	Electric Power System Protection	3
ECE 582		3
ECE 583	Electric Power Engineering Practicum I	3
ECE 585	The Business of the Electric Utility Industry	3
ECE 586	Communication and SCADA Systems for Smart Grid	3
ECE 592	Special Topics In Electrical Engineering	1-6