

Cyclic Offering of ECE Undergraduate-level courses

This list is tentative and is subject to change based on instructor availability and enrollment

Undergraduate Courses	Credit Hours	Fall (2024)	Winter (2025)	Summer (2025)	Fall (2025)	Winter (2026)	Summer (2026)	Fall (2026)	Winter (2027)	Summer (2027)	Fall (2027)	Winter (2028)	Summer (2028)
ECE 210 - Circuits	4	X	X	X	X	X	X	X	X	X	X	X	X
ECE 270 - Computer Methods I	4	X	X	X	X	X	X	X	X	X	X	X	X
ECE 273 - Digital Systems	4	X	X		X	X		X	X		X	X	
ECE 276/MATH Dept. - Discrete Math	4	X	X	X	X	X	X	X	X	X	X	X	X
ECE 305 - Intro. Elect. Engr.	4	X	X		X	X		X	X		X	X	
ECE 3100 - Data Science I	4	X			X			X			X		
ECE 311 - Electronics I	4	X	X	X	X	X	X	X	X	X	X	X	X
ECE 3171 - Analog & Discrete Sig & System	4	X	X	X	X	X	X	X	X	X	X	X	X
ECE 319 - Intro. ElectroMag. Cap.	4	X			X			X			X		
ECE 329 - Intro to Computer Music	4	C											
ECE 347 - Applied Dynamics	4		X			X			X			X	
ECE 3641 - Robotic Manipulation	4	X	X		X	X		X	X		X	X	
ECE 370 - Adv. Prog. Tech.	4	X			X			X			X		
ECE 3731 - Microproc and Embedded Sys	4	X	X	X	X	X	X	X	X	X	X	X	X
ECE 375 - Comp. Architecture	4	X	X		X	X		X	X		X	X	
ECE 385 - Elect. Materials & Devices	3	X	X	X	X	X	X	X	X	X	X	X	X
ECE 3851 - Intro to Elect. Materials & Devices	4	C											
ECE 387/CIS 387 - Digital Forensics I	4	X (CIS)			X			X (CIS)			X		
ECE 413 - Intro to VLSI Design	3	X	X		X	X		X	X		X	X	
ECE 414 - Electronics System Design	4	X		X	X		X	X		X	X		X
ECE 415 - Power Electronics	3		X			X			X			X	
ECE 426 - Multimedia Forensics	4												
ECE 427 - Digital Content Protection	4												
ECE 428- Cloud Computing	3		X			X			X			X	
ECE 434 - Intro to Machine Learning	4	C	X	X		X	X		X	X		X	X
ECE 435 - Intro Mobile/Smart Dev & Tech	4		X			X			X			X	
ECE 4361 - Electric Machines and Drives	4	X	X		X	X		X	X		X	X	
ECE 443 - Intro to Electric Power Systems	3	X			X			X			X		
ECE 4432- Renewable Elec Pwr Sys	4	X			X			X			X		
ECE 450 - Analog and Digital Comm Sys	4	X	X		X	X		X	X		X	X	
ECE 454 - Intr to Modern Wireless Comm	3												
ECE 460 - Automatic Control Systems	4	X	X	X	X	X	X	X	X	X	X	X	X
ECE 4641 - Mobile Robots	4	X	X		X	X		X	X		X	X	
ECE 467/CIS 467 - Digital Forensics II	4		X (CIS)			X			X (CIS)			X	
ECE 471 - Data Comm. & Networks	4	X	X		X	X		X	X		X	X	
ECE 473 - Embedded Systems	4	X	X		X	X		X	X		X	X	
ECE 474/CIS 474 - Compiler Design	3		X (CIS)			X (CIS)			X (CIS)			X (CIS)	
ECE 475 - Computer Hardware	4	X	X		X	X		X	X		X	X	
ECE 478/CIS 450/IMSE 450 - Operating Sys.	4	X (CIS)	X (CIS)	X	X (CIS)	X (CIS)	X	X (CIS)	X (CIS)	X	X (CIS)	X (CIS)	X
ECE 479/CIS 479 - Artificial Intelligence	3												
ECE 480 - Intro. to Dig.Sys.Proc.	4	X	X	X	X	X	X	X	X	X	X	X	X
ECE 4881 - Intro to Robot Vision	3		X			X			X			X	
ECE 4951 - Sys Design and Microcontrollers	3	X	X		X	X		X	X		X	X	
ECE 4981.. - EE Senior Design	2	X	X	X	X	X	X	X	X	X	X	X	X
ECE 4982.. - COEN Senior Design	2	X	X	X	X	X	X	X	X	X	X	X	X
ECE 4987... - RE Senior Design	2	X	X	X	X	X	X	X	X	X	X	X	X

XX = Bi-Annually offered course

C = Course Offered to Zero/Low Enrollment - Cancelled

Highlighted row indicates crosslisted course

Cyclic Offering of ECE Graduate-level courses

This list is tentative and is subject to change based on instructor availability and enrollment

Graduate Courses	Credit Hours	Fall (2024)	Winter (2025)	Summer (2025)	Fall (2025)	Winter (2026)	Summer (2026)	Fall (2026)	Winter (2027)	Summer (2027)	Fall (2027)	Winter (2028)	Summer (2028)
ECE 500 - Math Methods in EE/CE	3	X	X		X	X		X	X		X	X	
ECE 502 - Electromagnetic Theory & Simulation	3												
ECE 505/AE 505 - Intro. to Dig. Sys. & Micro	3		X			X			X			X	
ECE/AE 510 - Vehicle Electronics I	3		X			X			X			X	
ECE 5121 - Mod & Des of Elect Circ & Sys	3												
ECE 514 - VLSI Design	3	C			X			X			X		
ECE 515 - Vehicle Electronics II	3					X						X	
ECE 517 - Advanced Power Electronics & Motor Drives	3	X			X			X			X		
ECE 519 - Advanced Topics in EMC	3		X			X			X			X	
ECE 528 - Cloud Computing	3	X				X		X				X	
ECE 530/ESE 502 - Energy Storage Systems	3		X			X			X			X	
ECE 531 - Intelligent Vehicle Systems	3						XX						XX
ECE 532 - Automotive Sensors & Actuators	3	X	X		X	X		X	X		X	X	
ECE 533 - Active Auto. Safety Systems	3			XX						XX			
ECE 535 - Mobile Device/Ubiquitous Comp Sys	3	X			X			X			X		
ECE 537/CIS 568 - Data Mining	3	X	X		X	X		X	X		X	X	
ECE 539 - Production of Elect. Prod.	3				X						X		
ECE 541/ESE 500/ME 552 - Intro to Electrical Energy Sy	3	X			X			X			X		
ECE 542 - Intr to Pwr Mgmt & Reliability	3		X			X			X			X	
ECE 5421 - Grid Communication and System	3					X						X	
ECE 5422 - Grid Protection	3				X						X		
ECE 543 - Kinematics, Dynamic Control Robots	3		X			X			X			X	
ECE 544 - Mobile Robots	3		X			X			X			X	
ECE 545 - Intro Robot Sys	3	X			X			X			X		
ECE 5462 - Electric Aspects of Hybrid Vehicles	3	X			X			X			X		
ECE 550 - Communications	3		X			X			X			X	
ECE 552 - Fuzzy Systems	3	X			X			X			X		
ECE 554 - Embedded Systems	3		X	X		X	X		X	X		X	X
ECE 5541 - Embedded Networks	3					X						X	
ECE 5542 - Embedded Sig Proc and Control	3												
ECE 560 - Modern Control Theory	3	X	X		X	X		X	X		X	X	
ECE 565 - Digital Control Systems	3	C			X			X			X		
ECE 566 - Mechatronics	3	X (ME)			X (ME)			X (ME)			X (ME)		
ECE 567 - Nonlinear Control	3					X						X	
ECE/CIS 570 - Computer Networks	3	X			X			X			X		
ECE 5701 - Wireless Communications	3		X			X			X			X	
ECE 574 - Adv. Software Techniques in Engr Appl.	3	X			X			X			X		
ECE 575 - Computer Architecture	3	X			X			X			X		
ECE 5752 - Reconfigurable Computing	3		X			X			X			X	
ECE 576 - Information Engineering	3	C			X			X			X		
ECE/CIS 578 - Adv. Operating Systems	3	X	X (CIS)		X	X (CIS)		X	X (CIS)		X	X (CIS)	
ECE 579 - Intelligent Systems	3	X	X		X	X		X	X		X	X	
ECE 580 - Digital Signal Processing	3	X			X			X			X		
ECE 5802 - Multirate Signal Proc. w/ Appl.	3												
ECE 582 - Intro to Statistical DSP	3												
ECE 5831 - Pattern Recognition & Neural Networks	3	X		X	X		X	X		X	X		X
ECE 584 - Speech Processes	3												
ECE 588 - Robot Vision	3		X			X			X			X	
ECE 591 - Independent Study	1 to 3	X	X	X	X	X	X	X	X	X	X	X	X
ECE 615 - Adv Power Electronics	3												
ECE 616 - Adv. Topics in Power Systems	3		X			X			X			X	
ECE 642 - Robotic Embed Sys	3												
ECE 646 - Adv Elec Drive Transportation	3		X			X			X			X	
ECE 691 - Adv Directed Studies	1 to 3	X	X	X	X	X	X	X	X	X	X	X	X
ECE 699 - Thesis	3 or 6	X	X	X	X	X	X	X	X	X	X	X	X
ECE 798 - Doctoral Seminar		X	X		X	X		X	X		X	X	
ECE 980 - Pre-Cand Dissertation Research		X	X		X	X		X	X		X	X	
ECE 990 - Doctoral Dissertation		X	X	X	X	X	X	X	X	X	X	X	X
ESE 500/ECE 541/ME 552 - Sustainable Energy System	3	X			X			X			X		
ESE 501/ME 577 - Energy Conversion	3		X			X			X			X	
ESE 502/ECE 530 - Energy Storage Systems	3		X			X			X			X	

ESE 503 - Energy Policy, Econ & Environment	3		X			X			X			X	
ESE 504 - Energy Eval/Risk & Optimization	3												
ESE 510 - Sustainability Science and Engineering	3	X						X					
ESE 699 - Master's Thesis	3 or 6	X	X	X	X	X	X	X	X	X	X	X	X

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