

ELECTRICAL & COMPUTER ENGINEERING

2023 - 2027

Planned Graduate Course Offerings



The plan below lists the graduate courses and technical electives we intend to teach. **LEGEND**
It is subject to change without notice.

Moscow & EO = Course is available in Moscow and via Engineering Outreach
Moscow = Course is available only on the Moscow Idaho campus
Moscow & IF = Course is available in Moscow and Idaho Falls
Moscow, IF & EO = Course is available in Moscow, Idaho Falls, & via Engineering Outreach
Online = Course is available Online Only
EO = Course is available via Engineering Outreach Only

Digital Emphasis

Class	Fall '23	Spg '24	Fall '24	Spg '25	Fall '25	Spg '26	Fall '26	Spg '27
ECE 404 ST: Programmable Logic Control	Moscow							
ECE 440 Dig Sys Engr		Moscow		Moscow		Moscow		Moscow
ECE 441/541 Advanced Computer Architecture	Moscow & EO		Moscow & EO		Moscow & EO		Moscow & EO	
ECE 443 Distributed Processing and Control Networks	Moscow		Moscow		Moscow		Moscow	
ECE 445 Intro VLSI Design		Online		Moscow & EO		Online		Moscow & EO

E & M Emphasis

Class	Fall '23	Spg '24	Fall '24	Spg '25	Fall '25	Spg '26	Fall '26	Spg '27
ECE 404/504 ST: AI for Antennas and Circuits	Moscow & EO							
ECE 430 MW. & Mm. Wave Circuits		Moscow & EO		Moscow & EO				Moscow & EO
ECE 432 Propogation of Wireless Signals			Moscow & EO				Moscow & EO	
ECE 434 Antenna Principles and Design			Moscow & EO		Moscow & EO		Moscow & EO	
ECE 530 Adv. E&M Theory I					Moscow & EO			
ECE 531 Adv. E&M Theory II						Moscow & EO		
ECE 533 Antenna Theory				Moscow & EO		Moscow & EO		Moscow & EO
ECE 538 E&M Simulation					Moscow & EO	Moscow & EO		
ECE 539 Adv. Top. Electromag.			Moscow & EO	Moscow & EO			Moscow & EO	Moscow & EO

General Courses

Class	Fall '23	Spg '24	Fall '24	Spg '25	Fall '25	Spg '26	Fall '26	Spg '27
ECE 591 EE Research Colloquim	Moscow	Moscow	Moscow	Moscow	Moscow	Moscow	Moscow	Moscow

Microelectronics Courses

Class	Fall '23	Spg '24	Fall '24	Spg '25	Fall '25	Spg '26	Fall '26	Spg '27
ECE 410 Microelectronics II		Moscow		Moscow & EO		Moscow & EO		Moscow & EO
ECE 415/515 Analog Integrated Circuit Design	Moscow & EO		Moscow & EO		Moscow & EO		Moscow & EO	
ECE 417/517 Mixed Signal IC Design		Moscow				Moscow & EO		
ECE 418/518 Introduction to Electronic Packaging	Moscow & EO		Online		Moscow & EO		Online	
ECE 419/516 Image Sensors and Systems				Moscow & EO				Moscow & EO

Power Courses

Class	Fall '23	Spg '24	Fall '24	Spg '25	Fall '25	Spg '26	Fall '26	Spg '27
ECE 329 Background Study in Electrical Machines				Moscow & EO				Moscow & EO
ECE 420 Energy Systems II	Moscow	Moscow	Moscow	Moscow & EO	Moscow	Moscow	Moscow	Moscow
ECE 421 Introduction to Power Sys Analysis	Moscow & EO							
ECE 422 Power Sys Analysis		Moscow & EO						
ECE 427 Power Electronics		Moscow		Moscow		Moscow		Moscow
ECE 444/544 Supervisory Ctrl and Critical Infrastructure Systems		Moscow & EO				Moscow & EO		

Microelectronics Courses

Class	Fall '23	Spg '24	Fall '24	Spg '25	Fall '25	Spg '26	Fall '26	Spg '27
ECE 469/569 Resilient Control of Critical Infrastructure	Online				Moscow & EO			
ECE 504 Cybersecurity for Power Systems		Moscow & EO				Moscow & EO		
ECE 520 Adv. Elec. Mach.			Moscow & EO				Moscow & EO	
ECE 521 Power System Stability				Moscow & EO				Moscow & EO
ECE 522 Induction Machines	Moscow & EO				Moscow & EO			
ECE 523 Symmetrical Components	Moscow & EO				Moscow & EO			
ECE 524 Transients Power Sys		Moscow & EO				Moscow & EO		
ECE 525 Pwr.Sys. Prot. & Rel.			Moscow & EO				Moscow & EO	
ECE 526 Prot. Pwr. Sys. II				Moscow & EO				Moscow & EO
ECE 527 Dyn. & Cont. of AC Drives		Moscow & EO				Moscow & EO		
ECE 528 Understanding Pwr Qual.				Moscow & EO				Moscow & EO
ECE 529 Utility App. of Pwr. Elect.				Moscow & EO				Moscow & EO
ECE 487/587 Sustainable and Renewable Energy			Moscow & EO				Moscow & EO	
ECE 589 Power System Planning & Operation	Moscow & EO				Moscow & EO			

Semiconductor Courses

Class	Fall '23	Spg '24	Fall '24	Spg '25	Fall '25	Spg '26	Fall '26	Spg '27
ECE 460 Sem. Devices	Online		Moscow & EO		Online		Moscow & EO	
ECE 462/562 Sem. Theory		Moscow		Moscow		Moscow		Moscow
ECE 465/565 Introduction to Microelectronics Fabrication		Online		Moscow & EO		Online		Moscow & EO

Systems Courses

Class	Fall '23	Spg '24	Fall '24	Spg '25	Fall '25	Spg '26	Fall '26	Spg '27
ECE 350 Signals & Systems I	Moscow	Moscow	Moscow	Moscow	Moscow	Moscow	Moscow	Moscow
ECE 450 Signals & Systems II	Moscow & EO		Moscow & EO		Moscow & EO		Moscow & EO	
ECE 470/ME 481 Control Systems	EO		Moscow, IF & EO		Moscow & EO		Moscow, IF & EO	
ECE 476 Dig. Filtering				Moscow & EO				Moscow & EO
ECE 504 ST: Industrial Control	Moscow, IF & EO							
ECE 570 Random Signals			Moscow, IF & EO				Moscow, IF & EO	
ECE 571 Estimation Theory for Signal Processing, Com, and Ctrl				Moscow & IF				Moscow & IF
ECE 572/ME 580 Linear Sys Thry					Moscow, IF & EO			
ECE 574 Optimal Control Theory	Moscow, IF & EO							
ECE 588 Advanced Frequency Domain Control		Moscow, IF & EO				Moscow, IF & EO		