ELECTRICAL ENGINEERING

Requirements

Master of Science in Electrical Engineering (MSEE) Requirements

- 48 credit hours, 36 credit hours of course work as approved by the student's advisory committee.
- At least 24 credit hours must be upper-level ECE courses (ECE4xx or ECE5xx)
- No more than 12 credit hours of 400-level classes can count toward the MSEE degree.
- 12 credit hours of thesis work (the Institute's non-thesis option is not permitted for the MSEE degree).
- Successful defense of thesis.

Note: The BSEE or BSCPE degrees do not allow Area Elective credits to double-count towards the MSEE degree.

ECE Graduate Course Offerings

Code	Title	Hours
Communications		
ECE 412	Software Defined Radio	4
ECE 414	Wireless Systems	4
ECE 510	Error Correcting Codes	4
ECE 511	Data Communications	4
ECE 512	Probability, Random Processes, and Estimation	4
Computer Architecture and Microcomputers		
ECE 433	Advanced Digital System Design with Verilog	4
ECE 434	Embedded Linux	4
ECE 530	Advanced Microcomputers	4
ECE 534	Advanced Signal & Power Integrity	4
ECE 531	Digital Test & Product Engineering	4
ECE 532	Advanced Topics in Computer Architecture	4
ECE 497	Special Topics in Electrical Engineering	1-10
ECE 597	Special Topics in Electrical Engineering	1-6
Control Systems and Robotics		
ECE 420	Discrete-Time Control Systems	4
ECE 425	Introduction to Mobile Robotics	4
Electromagnetics		
ECE 540	Antenna Engineering	4
ECE 541	Microwave/Millimeter-Wave Engineering	4
ECE 542	Advanced Eletromagnetics	4
ECE 597	Special Topics in Electrical Engineering	1-6
Electronics and MEMS		
ECE 452	Power Electronics	4
ECE 454	System Level Analog Electronics	4
ECE 516	Introduction to MEMS: Fabrication & Applications	4
ECE 551	Digital Integrated Circuit Design	4
ECE 552	Analog Integrated Circuit Design	4
ECE 553	Radio-Frequency Integrated Circuit Design	4
ECE 556	Power Electronics: DC Power Supplies	4
ECE 557	Analog Test & Product Engineering	4
ECE 558	Mixed-Signal Test & Product Engineering	4
Power Systems		
ECE 452	Power Electronics	4
ECE 470	Power Systems Analysis I	4
ECE 471	Power Systems Analysis II	4
ECE 472	Power Systems II	4
ECE 473	Control of Power Systems	4
Signal and Image Processing		
ECE 480	Introduction to Image Processing	4
ECE 481	Electronic Music Synthesis	4
ECE 483	DSP System Design	4
ECE 580	Digital Signal Processing	4
ECE 582	Advanced Image Processing	4
ECE 584	Medical Imaging Systems	4