MS ELECTRICAL ENGINEERING

Program Learning Objectives

Our goal is to create a graduate degree program and a learning environment that result in graduates who possess the following:

1. Technical competency in their chosen disciplines;
2. Effective communication skills;
3. Awareness of the impacts of technology on society and the environment;
4. Understanding of ethics and responsible professional conduct;
5. Strong interpersonal and teamwork skills;
6. Appreciation of the need for life-long learning;
7. Leadership/planning/decision-making skills;
8. Critical thinking/complex problem-solving skills.

Required Courses		
EE 525	Stochastic Processes	4
or EE 513	Control Systems Theory	
EE 563	Graduate Seminar (1, 1, 1)	3
EE 599	Design Project (Thesis) (or 9 units of approved Technical Electives and a comprehensive written examination) [1]	9
Additional Electrical Engineering Graduate Courses		
Select from the following: [2]		12
EE 500	Individual Study	
EE 502	Microwave Component and System Engineering	
EE 504	Software Defined Radio	
EE 509	Computational Intelligence	
EE 511	Electric Machines Theory	
EE 513	Control Systems Theory	
EE 514	Advanced Topics in Automatic Control	
EE 515	Discrete Time Filters	
EE 518	Power System Protection	
EE 519	Advanced Analysis of Power Systems	
EE 520	Advanced Solar-Photovoltaic Systems Design	
EE 521	Computer Systems	
EE 522	Advanced Real-Time Operating Systems Design	
EE 523	Digital Systems Design	
EE 524	Solid State Electronics	
EE 526	Advanced Digital Communications	
EE 527	Advanced Topics in Power Electronics	
EE 528	Digital Image Processing	
EE 529	Microwave Device Electronics	
EE 530	Fourier Optics	
EE 531	Advanced VLSI Design	
EE 532	VLSI Circuit Testing	
EE 533	Antennas	
EE 534	Advanced Photonic Systems	
EE 541	Advanced Microwave Laboratory	
EE 542	Advanced Real Time Embedded Systems	
EE 544	Solid-state Electronics and VLSI Laboratory	
EE 570	Selected Advanced Topics	
EE 571	Selected Advanced Laboratory	
Approved Technical Electives (400-500 level) [1]		
May be selected from the course list above and other advisor approved technical electives.		17
Total units		**45**

1 At least 8 units of approved Technical Electives must be at 500 level.

2 Not all courses listed are offered each academic year. Consult the EE Department for current information on course offerings.