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) 9

Additional Electrical Engineering Graduate Courses
Select from the following: 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

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.