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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EE 525/EE 513</td>
<td>Stochastic Processes/Control Systems Theory</td>
<td>4</td>
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<tr>
<td>EE 563</td>
<td>Graduate Seminar (1, 1, 1)</td>
<td>3</td>
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<tr>
<td>EE 599</td>
<td>Design Project (Thesis) (or 9 units of approved Technical Electives and a comprehensive written examination)</td>
<td>9</td>
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Additional Electrical Engineering Graduate Courses

Select from the following:

- EE 502 Microwave Engineering
- 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 533 Antennas
- EE 541 Advanced Microwave Laboratory
- EE 544 Solid-state Electronics and VLSI Laboratory

Approved Technical Electives (400-500 level)

May be selected from the course list above and other advisor approved technical electives.

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.