<table>
<thead>
<tr>
<th>Depth Area</th>
<th>Undergraduate Preparation</th>
<th>Core Course Plan A (Thesis)</th>
<th>Core Course(s) Plan B (Project)</th>
<th>Depth Courses</th>
</tr>
</thead>
</table>
EE 641: RF Wireless Systems  
EE 650: Modern Comm Thy  
EE 652: Prin & Apps of Info Thy  
EE 653: Coding Theory |
| **Electromagnetic Systems** | EE 440: Electromagnetic Waves | EE 602: Stochastic Systems | EE 540: Microwave Design  
EE 602: Stochastic Systems | EE 534: Solid State Devices  
EE 546: Microwave Design  
EE 631: RF Electronic Ckts  
EE 634: RF Circuit Design  
EE 641: RF Wireless Systems  
EE 645: Antennas & Propagation  
EE 674: Sig. and Power Integrity |
| **Computer Networks**       | EE 410: Signals and Systems | EE 602: Stochastic Systems | EE 602: Stochastic Systems  
CompE 560: Computer & Data Networks  
EE 560: High Speed Nets  
EE 662: Wireless Sensor Nets  
EE 665: Multimedia Networks | CompE 560: Computer & Data Networks  
CompE 565: Multimedia Comm  
EE 556: Digital Signal Proc  
EE 654: Adaptive Algorithms  
EE 657: Digital Image Proc  
EE 658: Advanced DSP |
| **Signal Processing**       | EE 410: Signals and Systems | EE 602: Stochastic Systems | EE 601: Linear System Theory  
EE 602: Stochastic Systems | CompE 565: Multimedia Comm  
EE 556: Digital Signal Proc  
EE 654: Adaptive Algorithms  
EE 657: Digital Image Proc  
EE 658: Advanced DSP |
| **VLSI Systems**            | CompE 470: Digital Circuits | EE 602: Stochastic Systems | EE 602: Stochastic Systems  
CompE 572: VLSI Ckt Design  
EE 530: Analog Integ. Ckt Design  
EE 600: VLSI Testing  
EE 634: RF Circuit Design  
EE 670: ASIC Design  
EE 672: VLSI System Design  
EE 674: Sig. and Power Integrity | CompE 572: VLSI Ckt Design  
EE 530: Analog Integ. Ckt Design  
EE 600: VLSI Testing  
EE 634: RF Circuit Design  
EE 670: ASIC Design  
EE 672: VLSI System Design  
EE 674: Sig. and Power Integrity |
| **Embedded Systems**        | EE 410: Signals and Systems  
CompE 571: Embedded Operating Sys.  
EE 522: Digital Control Systems  
EE 556: Digital Signal Proc  
EE 662: Wireless Sensor Nets  
EE 672: VLSI System Design |
| **Energy Systems and Control** | EE 480: Power Systems  
EE 581: Power Systems Dynamics  
EE 584: Power Electronics  
EE 596: Renewable Energy Systems  
EE 600: Advanced Power Electronics |
Instructions

These guidelines provide a roadmap for students in either Plan A or Plan B. Before meeting with the ECE Department Graduate Advisor, a classified student should prepare a Program of Study using these guidelines in selecting the courses to be declared for the degree program. The Program of Study, which must be submitted to the ECE Department Office by the end of the first semester or before completing nine units of graduate work, should follow the guidelines given below:

General Comments

- Core courses must be taken in the first year of the program.
- No more than four (4) 500 level courses are accepted for the graduate program.
- Other courses may also be taken for credit under the depth area, subject to the approval of the Graduate Advisor.
- Plan A students are allowed to take one course from outside the ECE Department, with the approval of their thesis advisor and the Graduate Advisor.
- Plan B students are NOT allowed to take courses from outside the ECE Department.
- All students MUST choose Plan A (Thesis). Under the following circumstances, students can choose Plan B (Project):
  - They are already in Plan A but for some compelling reasons they cannot continue under Plan A. The thesis advisor will decide whether a student can switch to Plan B or not, by consulting with the Graduate Advisor.
  - They cannot find a professor who is willing to advise them. In this case, students MUST get the signature of three professors including all professors in their declared area of specialization indicating that they are not available or willing to advise the student (Declaration of Unavailability to Advise Thesis).
- Plan B students MUST take EE798 (Project) under the supervision of a professor as the project advisor. The project will be evaluated and approved by two professors including the project advisor in a 30 minute presentation session.
- Plan B students can enroll in the project (EE798) only after completing 21 units and having a POS on file.
- EE797 and EE799A&B cannot be used in Plan B. If students switch from Plan A to Plan B, they need to remove EE797 and EE799A&B from their POS and take 6 units of regular courses and 3 units of EE798, with the approval of the Graduate Advisor.
- Only students in Plan A (Thesis) can use CPT.
Plan A Students: Total of 30 units

- Declare a depth area.
- Take four (4) courses in the depth area including the core course. (12 units).
- Take two breadth courses: (6 units).
- Take one course either from the depth area or as a breadth course. (3 units).
- Register for six units of EE797 (research) and three units of EE799A (thesis): (9 units).
- Credit is not given for EE798 for Plan A students.

Plan B Students: Total of 30 units

- Declare a depth area.
- Submit the Declaration of Unavailability to Advise Thesis (DUAT) form signed by three professors in the declared area or the consent of the thesis advisor.
- Take six (6) courses in the depth area including the core course(s). (18 units).
- Take three breadth courses: (9 units).
- Take EE798 (Project) advised by one professor. (3 units).

All courses and depth areas listed are subject to the State of California and university funding and therefore may not always be available. Please contact the ECE Department for more information.

List of the Professors in Each Area of Specialization

Communication Systems: Dr. Madhu Gupta, Dr. Santosh Nagaraj, Dr. Duy Nguyen
Electromagnetic Systems: Dr. Madhu Gupta, Dr. Ege Engin, Dr. Satish Sharma
Computer Networks: Dr. Sunil Kumar, Dr. Yusuf Ozturk, Dr. Mahasweta Sarkar
Signal Processing: Dr. Ashkan Ashrafi, Dr. Sunil Kumar
VLSI Systems: Dr. Amir Alimohammad, Dr. Ege Engin, Dr. Ke Huang, Dr. Ying-Khai Teh
Embedded Systems: Dr. Baris Aksanli, Dr. Yusuf Ozturk, Dr. Hakan Toreyin
Energy Systems and Control: Dr. Chris Mi, Dr. Reza Sabzehgar, Dr. Sridhar Seshagiri, Dr. Lal Tummala
Graduate Courses **Tentatively** Offered in Fall and Spring Semesters

**IMPORTANT NOTE:** This is just a tentative schedule and is intended to help students plan their Program of Study ahead of time. The courses and the semesters are subject to change without prior notice. Offering of the courses is also contingent upon the availability of the instructors.

<table>
<thead>
<tr>
<th>Fall Semesters</th>
<th>Spring Semesters</th>
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<tbody>
<tr>
<td>EE502 Electronic Devices Rehab</td>
<td>EE534 Solid State Devices</td>
</tr>
<tr>
<td>EE503 Biomedical Instrumentation</td>
<td>EE530 Analog Integrated Circuit Design</td>
</tr>
<tr>
<td>EE522 Digital Control Systems</td>
<td>EE540 Microwave Devices and Systems</td>
</tr>
<tr>
<td>EE540 Microwave Devices and Systems</td>
<td>EE556 Digital Signal Processing</td>
</tr>
<tr>
<td>EE556 Digital Signal Processing</td>
<td>EE581 Power System Dynamics</td>
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<tr>
<td>EE558 Digital Communications</td>
<td>EE600 Advanced Power Electronics</td>
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<tr>
<td>EE584 Power Electronics</td>
<td>EE600 Digital ASIC Design</td>
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<tr>
<td>EE596 Renewable Energy Smart Grid</td>
<td>EE600 VLSI Testing</td>
</tr>
<tr>
<td>EE601 Linear Sys Theory &amp; Design</td>
<td>EE602 Stochastic Signals &amp; Systems</td>
</tr>
<tr>
<td>EE602 Stochastic Signals &amp; Systems</td>
<td>EE634 RF Circuit Design</td>
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<tr>
<td>EE631 RF Electronics Circuits</td>
<td>EE641 RF Wireless Systems</td>
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<tr>
<td>EE645 Antennas and Propagation</td>
<td>EE650 Modern Communication Theory I</td>
</tr>
<tr>
<td>EE654 Adaptive Algorithms</td>
<td>EE652 Principles &amp; App of Information Theory</td>
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<tr>
<td>EE657 Digital Image Processing</td>
<td>EE653 Coding Theory</td>
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<tr>
<td>EE662 Wireless Sensor Networks</td>
<td>EE658 Advanced Digital Signal Process</td>
</tr>
<tr>
<td>EE672 VLSI System Design</td>
<td>EE660 High Speed Net Design</td>
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<tr>
<td>EE674 Signal and Power Integrity</td>
<td>EE665 Multimedia Wireless Networks</td>
</tr>
<tr>
<td>COMPE560 Computer and Data Networks</td>
<td>EE685 MEMS Design and Applications</td>
</tr>
<tr>
<td>COMPE565 Multimedia Communication Systems</td>
<td>COMPE560 Computer and Data Networks</td>
</tr>
<tr>
<td>COMPE572 VLSI Circuit Design</td>
<td>COMPE561 Database and Web Programming</td>
</tr>
<tr>
<td>COMPE571 Embedded Operating System</td>
<td>COMPE565 Multimedia Communication Systems</td>
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