### ELECTIVE LIST (Effective Fall 2013)

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<tr>
<td>EEE 109 * Electronics II</td>
<td>4 EEE 187 Robotics EEE 180</td>
<td>4 EEE 162 Applied Wave Propagation</td>
<td>3 EEE 131 Electromechanics Lab EEE 117, EEE 130, WPJ; EEE 130 may be taken concurrently</td>
<td>1 EEE 120 Electronic Instrumentation EEE 108, EEE 117; EEE 108 may be taken concurrently</td>
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<tr>
<td>EEE 110 Advanced Analog IC</td>
<td>3 EEE 188 Digital Control Systems EEE 180, WPJ</td>
<td>3 EEE 163 Traveling Waves Lab EEE 117, EEE 162; EEE 162 may be taken concurrently, WPJ</td>
<td>1 EEE 141 ** Power System Analysis EEE 130; EEE 130 may be taken concurrently</td>
<td>3 EEE 122 Applied Digital Signal Processing EEE 117, EEE 180</td>
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<td>EEE 111 Adv. Analog IC Lab</td>
<td>1 EEE 189 Controls Lab EEE 184; may be taken concurrently, WPJ</td>
<td>1 EEE 165 Intro. to Optical Engr EEE 161, EEE 180 EEE 185; EEE 185 may be taken concurrently</td>
<td>3 EEE 142 Energy System Control EEE 130</td>
<td>3 EEE 124 Embedded Systems Fundamentals EEE 122, EEE 174</td>
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<td>EEE 166 Physical Electronics</td>
<td>3 EEE 167 Electro-Optical Engr. Lab EEE 161, EEE 165, EEE 180, WPJ; EEE 165 may be taken concurrently</td>
<td>1 EEE 143 ** Power System Lab EEE 130, EEE 141, WPJ</td>
<td>1 EEE 126 Design of Devices &amp; Systems for Market Appl EEE 120, EEE 122</td>
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<td>Cpe 138 Computer Network and Internet</td>
<td>3 EEE 181 Intro. to Digital Signal Processing EEE 064, EEE 180</td>
<td>3 EEE 144 Electric Power Distrib. EEE 130</td>
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<td>Cpe 151 CMOS &amp; VLSI</td>
<td>3 EEE 182 Digital Signal Processing Lab EEE 180 EEE 181; EEE 181 may be taken concurrently</td>
<td>1 EEE 145 Power System Relay Protection EEE 130, EEE 141</td>
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<td>Cpe 153 VLSI Design</td>
<td>3 EEE 183 Digital Comun. Sys. Dsgn EEE 161, EEE 180, EEE 185; EEE 185 may be taken concurrently</td>
<td>3 EEE 146 Power Elect. Control Drives EEE 108, EEE 130</td>
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<tr>
<td>Cpe 166 Advanced Logic Design</td>
<td>4 EEE 186 Communication Sys Lab EEE 117, WPJ; Corq EEE 185</td>
<td>1 EEE 148 Power Electronics Lab EEE 146; EEE 146 may be taken concurrently</td>
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<td>Cpe 186 Computer Hardware Design</td>
<td>3 Phys 106 Intro. To Modern Physics Math 31; Phys 11A, 011B, 011C or Phys 05A, 05B</td>
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EEE ELECTIVE: Must complete and additional 6 units of lecture from any of the above 4 areas - 4 unit courses = 3 units lecture/1 unit lab

*Students planning to complete EEE 193A/EEE 193B series may not use EEE 109 to meet depth/elective requirement

**Students planning to complete EEE 192A/EEE 192B series may not use EEE 141 and EEE 143 to meet depth/elective requirement.
### Electrical & Electronic Engineering

**PREREQUISITE LIST**  (Effective Fall 2013)

#### College of Engineering and Computer Science

<table>
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<tr>
<th>Required Lower Division Courses</th>
<th>Required Upper Division Courses</th>
<th>Required Design Project Series</th>
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| **Chem 1A**  General Chemistry I | **EEE 108**  Electronics I  
Prereq  EEE 117; Coreq EEE 108L | **POWER**  
Prereq  EEE 130; may be taken concurrently |
| **EEE/ CpE 64**  Intro. to Logic Design  
Prereq  CSC 15 or CSC 25 | **EEE 108L**  Electronics I Lab  
Prereq  EEE 117, EEE 117L; Coreq EEE 108 | **EEE 141**  Power System Analysis  
Prereq  EEE 130, EEE 141, WPJ |
| **ENGR 17**  Introductory Circuit Analysis  
Prereq  Math 45, Phys 11C; either can be taken concurrent, but not both | **EEE 117**  Network Analysis  
Prereq  Engr 17, EEE 64; EEE 64 may be taken concurrently: Coreq EEE 117L | **EEE 143**  Power System Laboratory  
Prereq  EEE 130, EEE 141, WPJ |
| **Engl 20**  College Composition II  
Prereq  Engl 1A or Engl 2 | **EEE 117L**  Network Analysis Lab  
Coreq  EEE 117 | **EEE 192A**  Electrical Power Design Project I  
Prereq  EEE 143 may be taken concurrently and any two of the following courses are needed: EEE 141, EEE 142, or EEE 144, WPJ |
| **ENGR 50**  Computational Methods & Apps.  
Prereq  Math 30, Phys 11A  
Coreq  Phys 11A | **EEE 130**  Electromechanical Conversion  
Prereq  EEE 117; may be taken concurrently | **EEE 192B**  Electrical Power Design Project II  
Prereq  EEE 192A, EEE 142, EEE 144; EEE 142 or EEE 144 may be taken concurrently--but not both |
| **Math 30**  Calculus I  
Prereq  Math 29 | **EEE 161**  Applies Electromagnetics  
Prereq  Math 32, Math 45, Phys 11C, Engr 17, and CSC 25 or ENGR 50 | **EEE 193A**  Product Design Project I  
Prereq  EEE 108, EEE 108L, EEE 117, EEE 117L, WPJ |
| **Math 31**  Calculus II  
Prereq  Math 30 | **EEE 174**  Introduction to Microprocessors  
Prereq  EEE 64; Junior status | **EEE 193B**  Product Design Project II  
Prereq  EEE 193A |
| **Math 32**  Calculus III  
Prereq  Math 31 | **EEE 180**  Signals and Systems  
Prereq  EEE 117; may be taken concurrently | |
| **Math 45**  Differential Equations  
Prereq  Math 31 | **EEE 184**  Introduction to Feedback Systems  
Prereq  EEE 180 | |
| **Phys 11A**  General Physics: Mechanics  
Prereq  Math 30, Math 31 | **EEE 185**  Modern Communication Systems  
Prereq  EEE 180, Engr 120; Engr 120 may be taken concurrently | |
| **Phys 11C**  General Physics: Electricity & Magnet.  
Prereq  Math 31, Phys 11A | **ENGR 120**  Probability and Random Signals  
Prereq  EEE 180; may be taken concurrently | |
| | **ENGR 140**  Engineering Economics  
Prereq  ENGR 17 (EEE students do not need ENGR 30) | |