The curriculum may also be presented in a chronological (semester-by-semester) format:

**Table 5-1 Curriculum (chronological)**  
**Electrical Engineering**

<table>
<thead>
<tr>
<th>Course</th>
<th>Type</th>
<th>Semester Credit Hours</th>
<th>Last Two Offerings</th>
<th>Maximum Section Size</th>
</tr>
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<tbody>
<tr>
<td><strong>Math &amp; Science</strong></td>
<td></td>
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<tr>
<td>MATH 191 Calculus I</td>
<td>R</td>
<td>4</td>
<td>Fall 2011, Spring 2012</td>
<td>Lecture: 45</td>
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<tr>
<td>CHEM 111 General Chemistry I</td>
<td>R</td>
<td>4</td>
<td>Fall 2011, Spring 2012</td>
<td>Lecture: 169, Lab: 30</td>
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<tr>
<td>English Composition – Level 1</td>
<td>SE</td>
<td>4</td>
<td>Fall 2011, Spring 2012</td>
<td>Lecture: 28²</td>
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<tr>
<td><strong>Discipline Specific</strong></td>
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</tr>
<tr>
<td>MATH 192 Calculus II</td>
<td>R</td>
<td>4</td>
<td>Fall 2011, Spring 2012</td>
<td>Lecture: 40</td>
</tr>
<tr>
<td>EE 162 Digital Circuit Design</td>
<td>R</td>
<td>4</td>
<td>Fall 2011, Spring 2012</td>
<td>Lecture: 34, Lab: 16</td>
</tr>
<tr>
<td>English Composition – Level 2</td>
<td>SE</td>
<td>3</td>
<td>Fall 2011, Spring 2012</td>
<td>Lecture: 26²</td>
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<td>Humanities and Fine Arts 1</td>
<td>SE</td>
<td>3</td>
<td>Fall 2011, Spring 2012</td>
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First Semester (16 credits)

Second Semester (18 credits)
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<tr>
<th>Course</th>
<th>Type&lt;sup&gt;1&lt;/sup&gt;</th>
<th>Semester Credit Hours</th>
<th>Last Two Offerings</th>
<th>Maximum Section Size</th>
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<tr>
<td></td>
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<td>PHYS 216 Engineering Physics II</td>
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<td>EE 210 Engineering Analysis I</td>
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<td>EE 260 Embedded Systems</td>
<td>R</td>
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<td>3</td>
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<td>EE 310 Engineering Analysis</td>
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<td></td>
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<td>R</td>
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<td>EE 380 Electronics I</td>
<td>R</td>
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<tr>
<td>EE 391 Introduction to Electric Power</td>
<td>R</td>
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<td>Technical Elective 1</td>
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<td>Behavioral and Social Sciences 2</td>
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**Second Semester (17 credits)**

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<th>Maximum Section Size</th>
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<tbody>
<tr>
<td>EE 314 Signals and Systems II</td>
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<td>EE 351 Applied Electromagnetics</td>
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<td>Lecture: 81⁴</td>
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<td>Last Two Offerings</td>
<td>Maximum Section Size</td>
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<td>EE 461 System Engineering and Project</td>
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<td>2011</td>
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<td>Lecture: 30^4</td>
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<td>Engineering Elective</td>
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<td>Lecture: 81^4</td>
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<td>Viewing a Wider World 1</td>
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<td>EE 419 Capstone Design II</td>
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<td>Lab: 5</td>
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<td>EE Elective 3</td>
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<td>Fall 2011 Spring</td>
<td>Lecture: 30^4</td>
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<td>EE Elective 4</td>
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<td>Lecture: 30^4</td>
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<td>Fall 2011 Spring</td>
<td>Unknown^3</td>
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* EE 401 is scheduled to be deleted from the 2013 catalog
<table>
<thead>
<tr>
<th>Course</th>
<th>Type</th>
<th>Math &amp; Science</th>
<th>Discipline Specific</th>
<th>General Education</th>
<th>Other</th>
<th>Last Two Offerings</th>
<th>Maximum Section Size</th>
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<tbody>
<tr>
<td>Program Totals (130 credits)</td>
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<td>66</td>
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<td>As a percentage of the total</td>
<td>25%</td>
<td>51%</td>
<td>24%</td>
<td>0%</td>
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Notes:
1) Course Type:  
   E  Free Elective (students may take any class).  
   R  Required (all students must take).  
   SE Selected Elective (students choose from a specified group of courses).
2) Maximum section size listed is for the recommended courses:  
   English Composition – Level 1  ENGL 111  
   English Composition – Level 2  ENGL 218  
   Oral Communications  COMM 265  
3) Due to the large number of possible courses (many hundred), obtaining enrollment figures was not feasible.
4) Average section size:  
   EE Elective 9  
   Engineering Elective 30  
   Technical Elective 20
Figure 8 Prerequisite Flowcharts

Deficiency courses
Placement by exam

MATH 120 Intermediate Algebra

MATH 121 College Algebra

MATH 190 Pre-Calc

MATH 191 Calculus I

MATH 192 Calculus II

PHYS 215 Physics I

PHYS 216 Physics II

MATH 291 Calculus III

E E 210 Analysis I

MATH 291 Calculus III

MATH 291 Calculus III

E E 280 AC/DC Circuits

E E 210 Analysis I

E E 161 C Programming

CHEM 111 Chemistry I

EE 260 Embedded Systems

EE 310 Analysis II

EE 312 Signals & Systems I

EE 314 Signals & Systems II

EE 391 Power

EE 351 Electromagnetism

EE 380 Electronics I

EE 401 Research in ECE

EE 418 Capstone I

EE 419 Capstone II

EE 461 Systems Engineering

E E 161 C Programming

EE 162 Digital Design

EE 461 Systems Engineering
Figure 8 (continued) Prerequisite Flowcharts

**Communications**
Interest Area
2012-2013 Catalog

- EE 314 Signals & Systems II
- EE 497 Digital Communications

**Computers**
Interest Area
2012-2013 Catalog

- EE 210 Analysis I
- EE 162 Digital Design
- EE 260 Embedded Systems

Pre-requisite → Co-requisite
Figure 8 (continued) Prerequisite Flowcharts

Control Systems
Interest Area
2012-2013 Catalog

Core
EE 314 Signals & Systems II

EE 475 Control Systems II

EE 476 Computer Control

Pre-requisite

Co-requisite

Digital Signal Processing
Interest Area
2012-2013 Catalog

Core
EE 314 Signals & Systems II

EE 475 Control Systems II

EE 395 Introduction to DSP

EE 442 Real-Time DSP

EE 446 Digital Image Processing

Pre-requisite

Co-requisite
Figure 8 (continued)  Prerequisite Flowcharts

Electronics
Interest Area
2012-2013 Catalog

Electromagnetics
Interest Area
2012-2013 Catalog
Co-requisite
Photonics
Core
MATH 191
Calculus I
EE 473
Intro to
Optics
PHYS 216
Engineering
Physics II
EE 477
Fiber Optics
EE 479
Lasers

EE 370
Geometrical
Optics
EE 478
Detectors &
Radiometry
EE 471
Experimental
Optics
EE 470
Physical
Optics

EE 473
Intro to
Optics

Figure 8 (continued) Prerequisite Flowcharts

Photonics
Interest Area
2012-2013 Catalog
Figure 8 (continued)  Prerequisite Flowcharts

Power
Interest Area
2012-2013 Catalog

Core

EE 391
Power I

EE 314
Signals & Systems II

EE 380
Electronics I

EE 431
Power II

EE 432
Power Electronics

EE 494
Distribution Systems

EE 493
Power III

Pre-requisite

Co-requisite