Undergraduate Major Planning

<table>
<thead>
<tr>
<th>SUMMER</th>
<th>FALL</th>
<th>WINTER</th>
<th>SPRING</th>
</tr>
</thead>
<tbody>
<tr>
<td>First year</td>
<td>AP credits:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sophomore</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Junior</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Engs major ____  Engs modified with __________________________ Biomedical ENGG _______ Engg physics _______

**PREREQUISITES**

Math 3, 8, 13 (FWS, times vary)
Physics 13 (F, W:) & 14 (W, S: times vary)
Chemistry 5 (F: 10; W: 9L, 10)
Engs 20 (F;W: 10, S:11) or CoSc 1 (F, W:2) and CoSc 10 (W:10, S:2)

**COMMON CORE COURSES**

ENGS 21 Intro to engineering (F, S: 10, W:10)  
**Math 3**
ENGS 22 Systems (W, S: 9L; X: 10)  
**Math 13, Phys 14, Engs 20**
ENGS 23 Distributed systems & fields (F: 2; S: 9L)  
**Engs 22**

**DISTRIBUTIVE CORE COURSES (choose 2)**

ENGS 24  Science of materials (W,S: 10)  
**Phys 14, Chem 5**
ENGS 25  Thermodynamics (S; 2; X: 11)  
**Math 13, Phys 13, CS 5**
ENGS 26  Control theory (F: 9L;)  
**Engs 22**
ENGS 27  Discrete & probabilistic systems (W: 2)  
**Math 8, Engs 20 or CS 5, Phys 13 or Chem 5**

**GATEWAY COURSES (choose 2)**

ENGS 31  Digital electronics (S: 12; X: 9L)  
**Engs 20**
ENGS 32  Electronics (W: 11)  
**Engs 22**
ENGS 33  Solid mechanics (F: 11; X: 12)  
**Math 13, Phys 13, Engs 20**
ENGS 34  Fluid dynamics (W: 9L)  
**Engs 23, Engs 25**
ENGS 35  Biotechnology & biochemical engg (F: 9L)  
ENGS 36  Chemical engineering (F: 10A)
ENGS 37  Environmental engineering (F: 11)

**ELECTIVES (2)**

- Math, natural science, or engineering science
- Engineering science (may be culminating exp)

**CULMINATING EXPERIENCE (choose one)**

- Engs 86 or 88 (individual project)
- Engs 89/90 (BE project)
- An approved course (see Course Guide for list)

**Indicates pre-requisite. For modified and engineering physics majors, consult the Thayer School Bulletin or ORC**