Bioengineering

The curriculum is 128 credits comprised of a Basic Program plus Electives which students select to meet both University Core requirements and requirements of the Bioengineering degree.

**Student Performance and Retention Requirements:** Students are required by Board of Regents policy to achieve a C- or better grade in each class used to satisfy the Bachelor of Science degree requirements. Moreover, students must achieve a C- or better grade prior to taking follow-on courses.

### Basic Program

<table>
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<tr>
<th>Year</th>
<th>Credits</th>
<th>Fall</th>
<th>Spring</th>
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<tbody>
<tr>
<td>Freshman</td>
<td>16</td>
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<tr>
<td>Sophomore</td>
<td>16</td>
<td>15</td>
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<tr>
<td>Junior</td>
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<tr>
<td>Senior</td>
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**Total Program Credits:** 128

A minimum of 128 credits is required for graduation; 42 of which must be in courses numbered 300 and above.

**Basic Program**

**Freshman Year**

- **EBIO 100 - Intro to Biological Engr**
- **CHMY 141 - College Chemistry I**
- **M 171Q - Calculus I**
- **US or W Core course**
- **US or W Core course**
- **EGEN 102 - Intro to Engineer Comp Apps**
- **CHMY 143 - College Chemistry II**
- **M 172Q - Calculus II**

**Sophomore Year**

- **M 273Q - Multivariable Calculus**
- **PHSX 220 - Physics I (w/ calculus)**
- **ECHM 201 - Elementary Principles of Chemical and Biological Engineering**
- **CHMY 211 - Elements of Organic Chemistry**
- **EBIO 216 - Elem Princ of Bioengineering**
- **ECHM 321 - Chemical Engineering Fluid Mechanics Operations**
- **M 274 - Introduction to Differential Equation**
- **BIOM 360 - General Microbiology**

**Junior Year**

- **BCH 380 - Biochemistry**
- **Univ Core Electives (IA, IH, IS or D)**
- **EGEN 350 - Applied Engr Data Analysis**
- **PHSX 222 - Physics II (w/ calculus)**
- **EBIO 324 - Bioengineering Transport**
- **BIOB 375 - General Genetics**
- **EBIO 438 - Bioprocess Engin**
- **EBIO 439 - Downstream Processing**
- **EGEN 310R - Multidisciplinary Engineering Design**
- **EMAT 251 - Materials Structures and Prop**

**Senior Year**

- **EBIO 442 - Bioengineering Lab I**
- **Bioengineering Elective**
- **EBIO 411R - Biological Engineer Design I**
- **Univ Core Electives (IA, IH, IS or D)**
- **Engineering Elective**
- **EMAT 464 - Biomedical Materials Engineering**
- **EBIO 412R - Biological Engineer Design II**
- **EBIO 443 - Bioengineering Lab II**
- **Bioengineering Elective**
- **Engineering Elective**
- **EGEN 488 - Fundamentals of Engineer Exam**

**Year Total:**

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