Technical Area/Track 2: **Cellular and Biomolecular Engineering**

### Cellular and Biomolecular Technical Electives:

*Must choose two of the following for a total of six hours:*

- **Any upper-division BME (3 hours)**
  - Varies
- **Approved upper-div Engr.**
  - Varies
- **Approved upper-div Comp Sci.**
  - Varies
- **Approved upper-div Math**
  - Varies
- **Approved upper-div Physics**
  - Varies
- **Approved upper-div Engr.**
  - Varies

**Remaining three credit hours must be in Biomedical Engineering. Please choose one:**

- **BME 342**
  - Biomechanics of Human Movement
    - Varies

- **BME 344**
  - Biomechanics
    - BME 314
    - M 427K & PHY 303K

- **BME 354**
  - Molecular Sensors and Nanodevices for BME Applications
    - BME 352

- **BME 379**
  - Tissue Engineering
    - BME 352 & 365S

**Must choose two of the following for a total of six hours:**

- **Any upper-division BME**
  - Varies
- **Approved upper-div Engr.**
  - Varies
- **Approved Graduate Course**
  - Permission from Instructor
- **Approved upper-div Comp Sci.**
  - Varies
- **Approved upper-div Math**
  - Varies
- **Approved upper-div Physics**
  - Varies
- **BME 377(X)**
  - Not already used as a Tech Elective

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Legend

- **FLAG**
  - B: Engineering Foundations of BME
  - PRE-REQ: Pre-requisite
  - CO-REQ: Co-requisite
- **PRE-REQ**
  - B: Basic Sequence
  - C: Core Curriculum
  - M: Major Sequence
  - S: Supporting Course
  - T: Technical Area

Revised: 07/11/2013; SCD
# Biomedical Engineering

**2010 - 2012 Undergraduate Catalog General Curriculum**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Pre-requisite</th>
<th>Co-requisite</th>
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<tr>
<td>Fall 1</td>
<td>BME 102L</td>
<td>Introduction to BME Design Principles</td>
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<tr>
<td>Spring</td>
<td>BME 303</td>
<td>Introduction to Computing</td>
<td>-</td>
<td>-</td>
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<td>Fall 2</td>
<td>CH 302</td>
<td>Principles of Chemical Practice</td>
<td>M 408C/D for CH 301</td>
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<tr>
<td>Spring</td>
<td>BME 113L</td>
<td>Network Analysis in Biomedical Engineering</td>
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<td>Fall 3</td>
<td>BME 221</td>
<td>Measurement and Instrumentation Lab</td>
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<td>-</td>
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<tr>
<td>Spring</td>
<td>BME 348</td>
<td>Modeling of BME Systems</td>
<td>BME 113L &amp; 343</td>
<td>-</td>
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<tr>
<td>Fall 4</td>
<td>BME 370</td>
<td>Principles of Engineering Design</td>
<td>BME 348 &amp; 251</td>
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<tr>
<td>Spring</td>
<td>BME 371</td>
<td>Biomedical Engineering Design Project</td>
<td>BME 335 &amp; 370</td>
<td>-</td>
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</tbody>
</table>

**Legend**

- **B** – Basic Sequence
- **C** – Core Curriculum
- **M** – Major Sequence
- **T** – Technical Area
- **PRE-REQ** – credit for Pre-requisite
- **CO-REQ** – credit OR registration for Co-requisite

Revised: 07/12/2013; SCD