2012-13 BIOENGINEERING CURRICULUM CHART

**Recommended**
- enrollment in CHEM 108A/L sequence that enables 5J AND CMPS 11 prerequisites

**See catalog for**
- Physics 5B/6B is recommended

Senior Design Project:
- BME/CE/EE 123A Engineering Design Project I
- BME/CE/EE 123B Engineering Design Project II

Prior to graduation (see beng.soe.ucsc.edu) you must:
1. Submit a Portfolio
2. Complete an Exit Survey
3. Attend an Exit Interview
BIOENGINEERING BS
DEGREE CURRICULUM

<table>
<thead>
<tr>
<th>Fall ____</th>
<th>Winter ____</th>
<th>Spring ____</th>
<th>Summer ____</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall ____</th>
<th>Winter ____</th>
<th>Spring ____</th>
<th>Summer ____</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall ____</th>
<th>Winter ____</th>
<th>Spring ____</th>
<th>Summer ____</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Approved List of Upper Division Electives – Courses used to satisfy a concentration cannot be used to also satisfy electives

- AMS 147-Computational Methods and Applications
- BIOC 100C -Biochemistry
- BIOC 105 -Genetics
- BIOL 110 -Cell Biology
- BIOL 114-Cancer Cell Biology
- BIOL 115-Eukaryotic Molecular Biology
- BIOL 119-Microbiology
- BIOL 125-Introduction To Neuroscience
- BIOL 130/L-Human Physiology/Lab
- BIOE 131/L-Animal Physiology/Lab
- BME 110-Computational Biology Tools ♦
- BME 128-Protein Engineering $ ♦
- BME 130-Genomes ♦
- BME 140-Bioinstrumentation ♦
- BME 155-Biotechnology & Drug Develop. ♦
- BME 170-Frontiers in Drug Action and Discovery
- BME 178-Stem Cell Biology ♦
- BME 198-Independent Study(5 units)
- BME 205-Bioinformatics Models and Algorithms $ ♦
- BME 211-Computational Systems Biology
- BME 215-Applied Gene Technology
- BME 230/L-Computational Genomics
- CHEM 108B/M-Organic Chemistry/Lab
- CMPE 100/L-Logic Design/Lab S ♦
- CMPE 110-Computer Architecture
- CMPE 118/L-Mechatronics/Lab♦
- CMPE 121/L-Microprocessor System Design/Lab
- CMPE 131-Human-Computer Interaction
- CMPE 167/L-Sensing and Sensor Technology/Lab ♦
- CMPE 202-Computer Architecture
- CMPE 215-Models of Robotic Manipulation
- CMPE 233-Human Factors ♦
- CMPE 235-User Evaluation of Technology
- CMPS 101-Algorithms and Abstract Data Types
- CMPS 109-Advanced Programming ♦
- CMPS 115-Software Methodology
- CMPS 116-Software Design Project
- CMPS 180-Database Systems I
- CMPS 181-Database Systems II
- CMPS 182-Introduction to Database Management Syst
- EE 103-Signals and Systems
- EE 104-Bio-electronics and Bio-instrumentations ♦
- EE 115-Intro. to MEMS Design ♦
- EE 130/L-Intro. to Optoelectronics and Photonics/Lab ♦
- EE 145/L-Properties of Materials/Lab ♦
- EE 154-Feedback Control Systems ♦
- EE 171/L-Analog Electronics/Lab ♦
- EE 172-Advanced Analog Circuits ♦
- EE 212-Introduction to BioMEMS ♦
- EE 216-Nanomaterials and Nanometer-scale Device ♦
- EE 230-Optical Fiber Communication ♦
- EE 270-Neural Implant Engineering ♦
- EE 293-Advanced Topics in Electrical Engineering ♦

$-Counts towards Design Elective
♦-Recommended for Biomolecular
♣-Recommended for Rehabilitation

Student Name ___________________________________  Student ID __________________
Faculty Advisor: ________________________________  Date: __________________
Staff Advisor: _________________________________  Date: __________________

http://ua.soe.ucsc.edu • advising@soe.ucsc.edu • (831) 459-5840 • 9/13/2012