MINOR IN BIOENGINEERING

http://bioengineering.illinois.edu

Bioengineering is a broad, interdisciplinary field that brings together engineering, biology, and medicine to create new techniques, devices, and understanding of living systems to improve the quality of human life. Its practice ranges from the fundamental study of the behavior of biological materials at the molecular level to the design of medical devices to help the disabled.

Any of the existing engineering programs can provide a good foundation for work in bioengineering. However, the engineering undergraduate needs additional education in the biologically oriented sciences to obtain a strong background for bioengineering. With such a background, the student should be able to progress rapidly on the graduate level in any branch of bioengineering. In industry, the graduate will be competent to handle engineering tasks related to biology.

For students pursuing the Bioengineering Minor from non-engineering backgrounds, please note that upper level electives may have engineering courses as prerequisites and these, and any subsequent prerequisite courses, are required for anyone taking the course.

Students may fulfill the requirements for a minor in bioengineering by completing the following course sequence. Engineering students who are proficient in biology may waive MCB 150 as a prerequisite for courses in this minor.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOE 120</td>
<td>Introduction to Bioengineering</td>
<td>1</td>
</tr>
<tr>
<td>BIOE 414</td>
<td>Biomedical Instrumentation</td>
<td>3</td>
</tr>
<tr>
<td>or CHBE 472</td>
<td>Techniques in Biomolecular Eng</td>
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<tr>
<td>CHEM 232</td>
<td>Elementary Organic Chemistry I</td>
<td>3 OR 4</td>
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<tr>
<td>MCB 244</td>
<td>Human Anatomy &amp; Physiology I</td>
<td>3</td>
</tr>
<tr>
<td>MCB 246</td>
<td>Human Anatomy &amp; Physiology II</td>
<td>3</td>
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<tr>
<td>or MCB 250</td>
<td>Molecular Genetics</td>
<td></td>
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<tr>
<td>MCB 252</td>
<td>Cells, Tissues &amp; Development</td>
<td>3</td>
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<tr>
<td>MCB 253</td>
<td>Exp Techniqs in Cellular Biol</td>
<td>2</td>
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<tr>
<td></td>
<td>Bioengineering Related Technical Elective ¹</td>
<td>3</td>
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Total Hours 21

¹ Courses to be selected from a list of departmentally approved list of 300- and 400-level Bioengineering Related Technical Electives (http://bioengineering.illinois.edu/undergraduate-programs/undergraduate-minor/bioengineering-minor-engineering-students/#related%20courses).

For more information regarding the Bioengineering minor, visit the Bioengineering minor Web site (http://bioengineering.illinois.edu/undergraduate-programs/undergraduate-minor/bioengineering-minor-engineering-students), contact the Bioengineering Department Office (1270 Digital Computer Laboratory, 217-333-1867, bioengineering@illinois.edu), or visit the Office of the Associate Dean for Undergraduate Programs, 206 Engineering Hall.