# 2020-21 Bioengineering Tentative List of Course Offerings
Subject to Change - updated 2/02/2021

<table>
<thead>
<tr>
<th>FALL 2020</th>
<th>WINTER 2021</th>
<th>SPRING 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BIOENGR 10</strong></td>
<td><strong>BIOENGR C101</strong></td>
<td><strong>BIOENGR 110</strong></td>
</tr>
<tr>
<td>Introduction to Bioengineering</td>
<td>Engineering Principles for Drug Delivery</td>
<td>Biotransport and Bioreaction Processes</td>
</tr>
<tr>
<td><strong>BIOENGR 100</strong></td>
<td><strong>BIOENGR C107</strong></td>
<td><strong>BIOENGR 121</strong></td>
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<tr>
<td>Bioengineering Fundamentals</td>
<td>Polymer Chemistry for Bioengineers</td>
<td>Introduction to Microcontrollers</td>
</tr>
<tr>
<td><strong>BIOENGR C104</strong></td>
<td><strong>BIOENGR 120</strong></td>
<td><strong>BIOENGR C139B</strong></td>
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<tr>
<td>Physical Chemistry of Biomacromolecules</td>
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<tr>
<td><strong>BIOENGR C105</strong></td>
<td><strong>BIOENGR C139A</strong></td>
<td><strong>BIOENGR C147</strong></td>
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<tr>
<td>Engineering of Bioconjugates</td>
<td>Biomolecular Materials Science I</td>
<td>Applied Tissue Engineering: Clinical and Industrial Perspective</td>
</tr>
<tr>
<td><strong>BIOENGR CM145</strong></td>
<td><strong>BIOENGR CM140</strong></td>
<td><strong>BIOENGR 167L</strong></td>
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<tr>
<td>Molecular Biotechnology for Engineers</td>
<td>Introduction to Biomechanics</td>
<td>Bioengineering Laboratory</td>
</tr>
<tr>
<td><strong>BIOENGR M153</strong></td>
<td><strong>BIOENGR C155</strong></td>
<td><strong>BIOENGR 176</strong></td>
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<tr>
<td>Introduction to Microscale and Nanoscale Manufacturing</td>
<td>Fluid-Particle and Fluid-Structure Interactions in Microflows</td>
<td>Principles of Biocompatibility</td>
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<tr>
<td><strong>BIOENGR 167L</strong></td>
<td><strong>BIOENGR C175</strong></td>
<td><strong>BIOENGR 180L</strong></td>
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<tr>
<td>Bioengineering Laboratory</td>
<td>Machine Learning and Data-Driven Modeling in Bioengineering</td>
<td>System Integration in Biology, Engineering, and Medicine I Laboratory</td>
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<tr>
<td><strong>BIOENGR 177A</strong></td>
<td><strong>BIOENGR 177B</strong></td>
<td><strong>BIOENGR CM187</strong></td>
</tr>
<tr>
<td>Bioengineering Capstone Design I</td>
<td>Bioengineering Capstone Design II</td>
<td>Research Communication in Computational and Systems Biology</td>
</tr>
<tr>
<td><strong>BIOENGR CM178</strong></td>
<td><strong>BIOENGR 180</strong></td>
<td><strong>BIOENGR 188</strong></td>
</tr>
<tr>
<td>Introduction to Biomaterials</td>
<td>System Integration in Biology, Engineering, and Medicine I</td>
<td>Special Courses in Bioengineering</td>
</tr>
<tr>
<td><strong>BIOENGR M182</strong></td>
<td><strong>BIOENGR C185</strong></td>
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<tr>
<td>Systems Biomodeling and Simulation Basics</td>
<td></td>
<td>Introduction to Tissue Engineering</td>
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<tr>
<td><strong>BIOENGR C183</strong></td>
<td><strong>BIOENGR CM186</strong></td>
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<tr>
<td>Targeted Drug Delivery and Controlled Drug Release</td>
<td>Computational Systems Biology: Modeling and Simulation of Biological Systems</td>
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<tr>
<td><strong>BIOENGR 188</strong></td>
<td><strong>BIOENGR CM187</strong></td>
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<tr>
<td>Special Courses in Bioengineering</td>
<td>Research Communication in Computational and Systems Biology</td>
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<tr>
<td><strong>BIOENGR M260</strong></td>
<td><strong>BIOENGR 188</strong></td>
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<tr>
<td>Neuroengineering</td>
<td>Special Courses in Bioengineering</td>
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</tbody>
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Required core courses in RED
Approved electives in BLUE
Students must petition for courses in BLACK to satisfy elective requirements

*BIOENGR C175 only required for 2020 catalog and later*