Bachelor of Science in Industrial and Systems Engineering
Additional Science Requirement

The courses listed in the table below will satisfy the ‘additional science’ requirement for the Bachelor of Science in Industrial and Systems Engineering. Students may satisfy the requirement through EM, K, or graded A-E credit at OSU. This course list is approved for all ISE students effective immediately, regardless of the year they were admitted to OSU or the term they completed the course. 

There is no guarantee these courses will be offered every term. 
The prerequisites for each still apply and must be met for students to be eligible to enroll.

<table>
<thead>
<tr>
<th>Subject Code</th>
<th>Course #</th>
<th>Lab</th>
<th>Hours</th>
<th>Course Title</th>
<th>Course Pre-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANATOMY</td>
<td>2220</td>
<td>yes</td>
<td>4</td>
<td>Human Structure and Function for Engineers</td>
<td>Permission from instructor</td>
</tr>
<tr>
<td>ANATOMY</td>
<td>2300</td>
<td>yes</td>
<td>4</td>
<td>Human Anatomy</td>
<td>Permission from instructor</td>
</tr>
<tr>
<td>ANATOMY</td>
<td>3300</td>
<td>yes</td>
<td>5</td>
<td>Advanced Human Anatomy for Undergraduates</td>
<td>None</td>
</tr>
<tr>
<td>ANTHROP</td>
<td>2200</td>
<td>yes</td>
<td>4</td>
<td>Introduction to Physical Anthropology</td>
<td>Biology 1101 or equivalent</td>
</tr>
<tr>
<td>BIOLOGY</td>
<td>1113</td>
<td>yes</td>
<td>4</td>
<td>Biological Sciences: Energy Transfer and Development</td>
<td>MATH 1130 or math placement M Concurrent: CHEM 1110</td>
</tr>
<tr>
<td>BIOLOGY</td>
<td>1114</td>
<td>yes</td>
<td>4</td>
<td>Biological Sciences: Form, Function, Diversity, and Ecology</td>
<td>MATH 1130 or math placement M Concurrent: CHEM 1110</td>
</tr>
<tr>
<td>BIOLOGY</td>
<td>2100</td>
<td>yes</td>
<td>4</td>
<td>Biological Analysis</td>
<td>MATH 1151 and sophomore standing</td>
</tr>
<tr>
<td>CHEM</td>
<td>1210</td>
<td>yes</td>
<td>5</td>
<td>General Chemistry I</td>
<td>C- in MATH 1130 or math placement L</td>
</tr>
<tr>
<td>CHEM</td>
<td>1250</td>
<td>yes</td>
<td>4</td>
<td>General Chemistry for Engineering</td>
<td>C- in MATH 1130 or math placement L</td>
</tr>
<tr>
<td>EARTHSC</td>
<td>1911</td>
<td>no</td>
<td>4</td>
<td>Climate Change: Mechanisms, Impacts, and Mitigation</td>
<td>None</td>
</tr>
<tr>
<td>EARTHSC</td>
<td>2155</td>
<td>no</td>
<td>3</td>
<td>Energy and Environment</td>
<td>None</td>
</tr>
<tr>
<td>EARTHSC</td>
<td>2203</td>
<td>no</td>
<td>3</td>
<td>Environmental Geoscience</td>
<td>None</td>
</tr>
<tr>
<td>EARTHSC</td>
<td>2204</td>
<td>no</td>
<td>3</td>
<td>Exploring Water Issues</td>
<td>None</td>
</tr>
<tr>
<td>EARTHSC</td>
<td>3203</td>
<td>no</td>
<td>3</td>
<td>Basic Science, Research, and Implications for Society</td>
<td>Math 1085 or math placement R</td>
</tr>
<tr>
<td>ENR</td>
<td>2155</td>
<td>no</td>
<td>3</td>
<td>Energy and Environment</td>
<td>None</td>
</tr>
<tr>
<td>ENR</td>
<td>3280</td>
<td>no</td>
<td>2</td>
<td>Water Quality Management</td>
<td>None</td>
</tr>
<tr>
<td>EEOB</td>
<td>2510</td>
<td>yes</td>
<td>3</td>
<td>Human Anatomy</td>
<td>3 credit hours of biological sciences</td>
</tr>
<tr>
<td>EEOB</td>
<td>2520</td>
<td>no</td>
<td>3</td>
<td>Human Physiology</td>
<td>3 credit hours of biological sciences</td>
</tr>
<tr>
<td>GEOG</td>
<td>2200</td>
<td>no</td>
<td>3</td>
<td>Mapping Our World</td>
<td>None</td>
</tr>
<tr>
<td>GEOG</td>
<td>3300</td>
<td>no</td>
<td>3</td>
<td>Transportation Security</td>
<td>None</td>
</tr>
</tbody>
</table>