## Basic Program courses Required by ALL Engineering Curricula

<table>
<thead>
<tr>
<th>ISU</th>
<th>Cr</th>
<th>SCC</th>
<th>Cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chem 177 or 167</td>
<td>4</td>
<td>General Chemistry for Engineers</td>
<td>CHM 165</td>
</tr>
<tr>
<td>English 150</td>
<td>3</td>
<td>Critical Thinking and Communication</td>
<td>ENG 105</td>
</tr>
<tr>
<td>English 250</td>
<td>3</td>
<td>WOVE Composition</td>
<td>ENG 106</td>
</tr>
<tr>
<td>Engr 101</td>
<td>R</td>
<td>Engineering Orientation</td>
<td></td>
</tr>
<tr>
<td>Engr 160*</td>
<td>3</td>
<td>Engineering Problems w/VisualBasic</td>
<td></td>
</tr>
<tr>
<td>Lib 160</td>
<td>1</td>
<td>Library Instruction</td>
<td></td>
</tr>
<tr>
<td>Math 165</td>
<td>4</td>
<td>Calculus I</td>
<td>MAT 210</td>
</tr>
<tr>
<td>Math 166</td>
<td>4</td>
<td>Calculus II</td>
<td>MAT 216</td>
</tr>
<tr>
<td>Phys 221</td>
<td>5</td>
<td>Classical Physics I</td>
<td>PHY 212</td>
</tr>
</tbody>
</table>

*May also transfer for AerE 160, CE 160, ME 160, IE 148, and/or EE/CprE/SE 185

**NOTE:** Students who are not adequately prepared may need to take courses in addition to those listed above. Typically, many students need Math 140 (Algebra) and/or Math 141/142 (Trigonometry) prior to taking a Calculus course.

## Social Science Humanities General/Education Courses Accepted by ALL Engineering Departments

<table>
<thead>
<tr>
<th>ISU</th>
<th>Cr</th>
<th>SCC</th>
<th>Cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Econ 101</td>
<td>3</td>
<td>Principles of Microeconomics</td>
<td>ECN 130</td>
</tr>
<tr>
<td>Econ 102</td>
<td>3</td>
<td>Principles of Macroeconomics</td>
<td>ECN 120</td>
</tr>
<tr>
<td>Engl 201</td>
<td>3</td>
<td>Introduction to Literature</td>
<td>LIT 101</td>
</tr>
<tr>
<td>Hist 201</td>
<td>3</td>
<td>Introduction to Western Civilization</td>
<td>HIS 131</td>
</tr>
<tr>
<td>Hist 202</td>
<td>3</td>
<td>Introduction to Western Civilization</td>
<td>HIS 132</td>
</tr>
<tr>
<td>Hist 221</td>
<td>3</td>
<td>Survey of U.S History I</td>
<td>HIS 151</td>
</tr>
<tr>
<td>Hist 222</td>
<td>3</td>
<td>Survey of U.S History II</td>
<td>HIS 152</td>
</tr>
<tr>
<td>Music 102</td>
<td>3</td>
<td>Introduction to Music Listening</td>
<td>MUS 100</td>
</tr>
<tr>
<td>Phil 201</td>
<td>3</td>
<td>Introduction to Philosophy</td>
<td>PHI 101</td>
</tr>
<tr>
<td>Pol S 215</td>
<td>3</td>
<td>Introduction to American Government</td>
<td>POL 111</td>
</tr>
<tr>
<td>Psych 101</td>
<td>3</td>
<td>Introduction to Psychology</td>
<td>PSY 111</td>
</tr>
<tr>
<td>Psych 230</td>
<td>3</td>
<td>Developmental Psychology</td>
<td>PSY 121</td>
</tr>
<tr>
<td>Psych 280</td>
<td>3</td>
<td>Social Psychology</td>
<td>PSY 251</td>
</tr>
<tr>
<td>Relig 205</td>
<td>3</td>
<td>Introduction to World Religions</td>
<td>REL 101</td>
</tr>
<tr>
<td>Soc 134</td>
<td>3</td>
<td>Introduction to Sociology</td>
<td>SOC 110</td>
</tr>
<tr>
<td>Soc 219</td>
<td>3</td>
<td>Intimate Relationships</td>
<td>SOC 120</td>
</tr>
<tr>
<td>Soc 235</td>
<td>3</td>
<td>Social Problems</td>
<td>SOC 115</td>
</tr>
</tbody>
</table>

**NOTE:** A total of 12-15 credits needed, depending on engineering department.

- All students need 1 US Diversity (denoted with ³).
- All students need 1 International Perspective (denoted with ²).

Engineering only accepts credits for transfer courses with a grade of “C” or better.

This is a guide; please make sure to consult with an academic adviser in your major of interest.
### Other Courses Required for SOME Engineering Curricula

<table>
<thead>
<tr>
<th>ISU</th>
<th>Engr Major</th>
<th>Cr</th>
<th>SCC</th>
<th>Cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biol 211</td>
<td>CE (Envr), AE</td>
<td>3</td>
<td>Principles of Biology I</td>
<td>BIO 112</td>
</tr>
<tr>
<td>Biol 212</td>
<td>BSE</td>
<td>3</td>
<td>Principles of Biology II</td>
<td>BIO 113</td>
</tr>
<tr>
<td>Chem 178</td>
<td>AE, BSE, ChE, CE (Envr), MatE</td>
<td>4</td>
<td>General Chemistry II &amp; Lab II</td>
<td>CHM 175</td>
</tr>
<tr>
<td>Chem 331</td>
<td>BSE, ChE</td>
<td>3</td>
<td>Organic Chemistry I</td>
<td>CHM 263</td>
</tr>
<tr>
<td>Chem 332</td>
<td>BSE (Pre, BR), ChE</td>
<td>3</td>
<td>Organic Chemistry II</td>
<td>CHM 273</td>
</tr>
<tr>
<td>Math 265</td>
<td>All but AE, BSE, SE</td>
<td>4</td>
<td>Calculus III</td>
<td>MAT 219</td>
</tr>
<tr>
<td>Math 267</td>
<td>ALL</td>
<td>4</td>
<td>Elem. Diff. Eq’s &amp; Laplace Trans.</td>
<td>MAT 227</td>
</tr>
<tr>
<td>Phys 222</td>
<td>ALL but CE (Envr), SE</td>
<td>5</td>
<td>Classical Physics II</td>
<td>PHY 222</td>
</tr>
<tr>
<td>Sp Cm 212</td>
<td>AE, CE, IE, ME, SE</td>
<td>3</td>
<td>Fundamentals of Public Speaking</td>
<td>SPC 112</td>
</tr>
</tbody>
</table>

**Abbreviation**

- AerE: Aerospace Engineering
- AE: Agricultural Engineering
- P: Power and Machinery Option within AE
- Envr: Ag and Environmental Option within AE
- BSE: Biological Engineering
- Pre: Pre-Professional and Pre-Graduate Option within BSE
- BR: Biorenewable Option within BSE
- BE: Bioenvironmental Option within BSE
- FE: Food Engineering Option within BSE
- ChE: Chemical Engineering
- CE: Civil Engineering
- Envr: Environmental Option within CE
- CprE: Computer Engineering
- ConE: Construction Engineering
- EE: Electrical Engineering
- IE: Industrial Engineering
- MatE: Materials Engineering
- ME: Mechanical Engineering
- SE: Software Engineering