

# IOWA STATE UNIVERSITY

Agricultural and Biosystems Engineering

**B.S. in Agricultural Engineering**  
**Food and Biosystems Engineering Option**  
 \* A typical 4-year program of study: 127.5 credits to graduate \*

<div style="display: flex; justify-content: space-between;"> <div style="width: 15%;"> <p><b>Engr 101</b> Orientation</p> <p><b>AE 110</b> Experiencing ABE</p> </div> <div style="width: 15%;"> <p><b>AE 170X</b> Graphics/Design</p> <p><b>Engr 160</b> Engr Problems/ Computation</p> </div> <div style="width: 15%;"> <p><b>Math 165</b> Calculus I</p> <p><b>Math 166</b> Calculus II</p> </div> <div style="width: 15%;"> <p><b>Chem 167</b> Chemistry I</p> <p><b>Physics 221</b> Classical Physics I</p> </div> <div style="width: 15%;"> <p><b>Chem 167L</b> Chemistry Lab</p> <p><b>SSH Elective</b></p> </div> <div style="width: 15%;"> <p><b>Engl 150</b> Critical Think</p> </div> <div style="width: 15%;"> <p><b>Lib 160</b> Library Instr</p> </div> </div>							First Year
<div style="display: flex; justify-content: space-between;"> <div style="width: 15%;"> <p><b>SSH Elective</b></p> <p><b>AE 201</b> Sophomore Seminar</p> </div> <div style="width: 15%;"> <p><b>EM 274</b> Statics</p> <p><b>AE 216</b> Fundamentals</p> </div> <div style="width: 15%;"> <p><b>Stat 305</b> Engr Statistics</p> <p><b>EM 324</b> Materials</p> </div> <div style="width: 15%;"> <p><b>Physics 222</b> Classical Physics II</p> <p><b>EM 327</b> Materials Lab</p> </div> <div style="width: 15%;"> <p><b>Biological Elective</b></p> <p><b>Engl 250</b> WOVE</p> </div> <div style="width: 15%;"> <p><b>Math 267</b> Diff Equations &amp; Laplace Transform</p> </div> </div>							Sophomore
<div style="display: flex; justify-content: space-between;"> <div style="width: 15%;"> <p><b>AE 363</b> Electric Power/ Electronics</p> <p><b>Free Elective</b></p> </div> <div style="width: 15%;"> <p><b>ME 330</b> Thermodynamics</p> <p><b>Ch E 356</b> Fluid Mechanics</p> </div> <div style="width: 15%;"> <p><b>Chem 231</b> Organic Chemistry</p> <p><b>Biological Elective</b></p> </div> <div style="width: 15%;"> <p><b>Chem 231L</b> Organic Chemistry Lab</p> <p><b>Micro 302</b> Microorganisms</p> </div> <div style="width: 15%;"> <p><b>Biol 212</b> Biology</p> <p><b>Micro 302L</b> Microbiology Lab</p> </div> <div style="width: 15%;"> <p><b>AE 316</b> Systems Modeling</p> <p><b>Biological Elective</b></p> </div> <div style="width: 15%;"> <p><b>Communication Elective</b></p> </div> </div>							Junior
<div style="display: flex; justify-content: space-between;"> <div style="width: 15%;"> <p><b>Free Elective</b></p> <p><b>Diversity Elective</b></p> </div> <div style="width: 15%;"> <p><b>AE 404</b> Instrumentation</p> <p><b>AE 416</b> AE Design II</p> </div> <div style="width: 15%;"> <p><b>AE 415</b> AE Design I</p> <p><b>AE 480</b> Biological Processes</p> </div> <div style="width: 15%;"> <p><b>Ch E 357</b> Heat and Mass Transfer</p> <p><b>Technical Elective</b></p> </div> <div style="width: 15%;"> <p><b>International Elective</b></p> <p><b>AE 469</b> Grain Processing</p> </div> <div style="width: 15%;"> <p><b>Technical Elective</b></p> </div> </div>							Senior

<b>KEY</b>	<span style="background-color: yellow; border: 1px solid black; padding: 2px;"> </span> AE Program	<span style="background-color: pink; border: 1px solid black; padding: 2px;"> </span> Technical Electives	<span style="background-color: lightgreen; border: 1px solid black; padding: 2px;"> </span> Math, Physical & Biological Sciences
	<span style="background-color: lightblue; border: 1px solid black; padding: 2px;"> </span> SSH Electives	<span style="background-color: orange; border: 1px solid black; padding: 2px;"> </span> Communication Skills	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">3</span> Number of Credits