Minor in Agricultural Engineering

The undergraduate minor in Agricultural Engineering provides a foundation in agriculture for students who are pursuing a BS in Engineering degree program. The minor includes courses in three engineering application areas in agriculture: Machinery/Power, Soil and Water, and Processing. The minor will serve to prepare students for careers in agriculture, which is the number one industry in Missouri.

Requirements

Students who are majoring in a BS in Engineering degree program are eligible for the undergraduate minor in Agricultural Engineering. The minor requires a total of 18 credit hours, (6 courses), selected from the list below. Students are required to take at least one course from at least three of the areas identified within the eight American Society of Agricultural and Biological Engineers (ASABE) Communities.

Ag Engineering Emphasis: Machinery/Power

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG_S_TCH 4320</td>
<td>Agricultural Equipment and Machinery</td>
<td>4</td>
</tr>
<tr>
<td>AG_S_TCH 4140</td>
<td>Electricity: Wiring and Equipment</td>
<td>3</td>
</tr>
<tr>
<td>AG_S_TCH 4365</td>
<td>Machinery Management Using Precision Agriculture Technology</td>
<td>3</td>
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<tr>
<td>MAE 4710</td>
<td>Hydraulic Control Systems</td>
<td>3</td>
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<tr>
<td>BIOL_EN 4150</td>
<td>Soil and Water Conservation Engineering</td>
<td>3</td>
</tr>
<tr>
<td>ECE 2100</td>
<td>Circuit Theory I</td>
<td>4</td>
</tr>
<tr>
<td>or ENGINR 2100</td>
<td>Circuit Theory for Engineers</td>
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Ag Engineering Emphasis: Soil & Water

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<tr>
<td>BIOL_EN 4150</td>
<td>Soil and Water Conservation Engineering</td>
<td>3</td>
</tr>
<tr>
<td>BIOL_EN 4250</td>
<td>Irrigation and Drainage Engineering</td>
<td>3</td>
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<tr>
<td>BIOL_EN 4350</td>
<td>Watershed Modeling Using GIS</td>
<td>3</td>
</tr>
<tr>
<td>AG_S_TCH 4460</td>
<td>Irrigation and Drainage</td>
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Ag Engineering Emphasis: Processing

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<tr>
<td>AG_S_TCH 4140</td>
<td>Electricity: Wiring and Equipment</td>
<td>3</td>
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<tr>
<td>AG_S_TCH 4220</td>
<td>Material Handling and Conditioning</td>
<td>3</td>
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<tr>
<td>BIOL_EN 3180</td>
<td>Heat and Mass Transfer in Biological Systems</td>
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<td>BIOL_EN 4316</td>
<td>Biomass Refinery Operations</td>
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<tr>
<td>BIOL_EN 4380</td>
<td>Applied Electronic Instrumentation</td>
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<tr>
<td>MAE 4270</td>
<td>Nondestructive Evaluation of Materials</td>
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