### Suggested Curriculum

This should be used as a **guide** only. Semester offerings are subject to change. **(BOLD courses offered only indicated semesters.)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Autumn</th>
<th>Spring</th>
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<tbody>
<tr>
<td>1</td>
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<tr>
<td></td>
<td><em>ENGR 1110.10</em> (Engineering Survey 1) .......... 0.5 hr</td>
<td><em>ENGR 1120.10</em> (Engineering Survey 2) .......... 0.5 hr</td>
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<td></td>
<td><em>ENGR 1181</em> (Fundamentals of ENGR 1)* .......... 2 hr</td>
<td><em>PHYSICS 1251</em> (E&amp;M, Optics, Modern Phys) .......... 5 hr</td>
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<td></td>
<td><em>MATH 1151</em> (Calculus 1)* .......... 5 hr</td>
<td><em>ENGR 1221</em> (Programming in Matlab)* .......... 2 hr</td>
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<td><em>PHYSICS 1250</em> (Mechanics, Thermal, Waves) .......... 5 hr</td>
<td><em>ENGR 1182</em> (Fundamentals of ENGR 2)* .......... 2 hr</td>
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<td></td>
<td>General Education .......... 3 hr</td>
<td><em>MATH 1172</em> (Calculus 2)* .......... 5 hr</td>
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<td>* Honors alternative course options available</td>
<td>General Education (English 1110) .......... 3 hr</td>
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<tr>
<td></td>
<td>FABE 2100_ (Introduction to FABE) .......... 1 hr</td>
<td>FABE 2110_ (Fluid Mechanics in FABE) .......... 3 hr</td>
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<td>FABE 2710_ (Surveying) .......... 2 hr</td>
<td>FABE 2720_ (Principles of Soil &amp; Water Eng) .......... 2 hr</td>
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<td>MATH 2177_ (Math Topics for Engineers) .......... 4 hr</td>
<td>ISE 2040_ (Engineering Economics) .......... 2 hr</td>
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<td>MECHENG 2010_ (Statics) .......... 2 hr</td>
<td>MECHENG 2020_ (Mechanics of Materials) .......... 3 hr</td>
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<td>CHEM 1250_ (Chem for Engrs) .......... 4 hr</td>
<td>Applied Biol or Ag Science Elective .......... 3 hr</td>
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<td>General Education (2nd Writing) .......... 3 hr</td>
<td>General Education .......... 3 hr</td>
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<td><em>FABE 3120</em> (Thermodynamics in FABE) .......... 4 hr</td>
<td><em>FABE 3130</em> (Heat &amp; Mass Transfer in FABE) .......... 4 hr</td>
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<td><em>FABE 3810</em> (Ag Structures) .......... 3 hr</td>
<td><em>FABE 3140</em> (Professional Dev in FABE) .......... 1 hr</td>
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<td><em>MECHENG 2030</em> (Dynamics) .......... 3 hr</td>
<td><em>FABE 3150</em> (System Dynamics &amp; Electricity) .......... 4 hr</td>
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<td>Technical Elective .......... 3 hr</td>
<td><em>FABE 3610</em> (Utilization of Energy in Ag.) .......... 3 hr</td>
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<td>2 <em>ENGR 4410.01</em> (Computer Graphics-AutoCad) .......... 2 hr</td>
<td>Technical Elective .......... 3 hr</td>
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<td>or Eng 4410.02_ (Solid Works) in SP</td>
<td>General Education .......... 3 hr</td>
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<td><em>FABE 4900</em> (Capstone Design 1) .......... 3 hr</td>
<td>Required Senior Exit Survey via E-mail for FABE</td>
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<td><em>FABE 5160</em> (Elec, Msmts, &amp; Instrumentation) .......... 4 hr</td>
<td><em>FABE 4910</em> (Capstone Design 2) .......... 3 hr</td>
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<td><em>FABE 5820</em> (Environmt Controls &amp; Air Quality) .......... 3 hr</td>
<td><em>FABE 5730</em> (Design of Ag Water Mgmt Systems) .......... 3 hr</td>
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<td></td>
<td>Technical Elective .......... 3 hr</td>
<td>Technical Electives .......... 3 hr</td>
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<td>General Education .......... 3 hr</td>
<td>Technical Electives .......... 3 hr</td>
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Total Hours to complete the degree program = 132

1CSE 122 Programming in C++ which is 3 credit hours is also accepted

2Power and Machinery specialization students take ENGR 4410.02 (Solid Works) in SP Sem

### Program Options

Agricultural Engineering students may choose from three “tracks” of concentration:

- Power and Machinery
- Soil and Water
- Structures and Facilities

### Acceptance Criteria

Acceptance into the Food, Agricultural and Biological Engineering major will depend upon the cumulative point-hour ratio (CPHR) and the earned point-hour ratio (EPHR) at completion of the following pre-major courses: Math 1151, 1172; Physics 1250; Chemistry 1210 or 1250; Engineering 1181 and 1182. Currently a minimum CPHR and EPHR of 2.0 is required. See the department's Undergraduate Academic Program Coordinator in 260-B AE for application details.

Revised 2/16/2017
Technical Electives (by Track)
Total 18 hours MINIMUM required between Tech Elecs & Applied Sciences

(Tech Elecs: 14-15 hrs required)

Ag Power & Machinery:
- ASM 2240 (3)
- ISE 2500 (3)
- ISE 4500 (3)
- ISE 5530 (3)
- MSE 2010 (3)
- MSE 5951 (3)
- MECHENG 3360 (3)
- MECHENG 3670 (4)
- MECHENG 5512 (2)
- MECHENG 5530 (3)
- MECHENG 5531 (2)
- MECHENG 5680 (4)
- MECHENG 5682 (4)
- MECHENG 5139 (3)
- MECHENG 5144 (3)
- MECHENG 5240 (3)
- MECHENG 5372 (3)
- MECHENG 5427 (3)
- CIVILENG 5420 (3)
- EARTHSC 5651 (4)
- ENR 5261 (3)
- FABE 5310 (4)
- FABE 5320 (3)
- FABE 5520 (2)
- CHEM 5791 (3)
- FABE 5550 (3)
- FABE 5750 (3)
- FABE 5550 (3)
- CIVILENG 3160 (3)
- CIVILENG 3540 (3)
- CIVILENG 4350 (3)
- CIVILENG 5820 (3)
- CIVILENG 5830 (3)
- CIVILENG 5840 (3)
- CIVILENG 5130 (3)
- CIVILENG 5240 (3)
- CIVILENG 5340 (3)

Ag Soil & Water:
- CIVILENG 3160 (3)
- CIVILENG 3540 (3)
- CIVILENG 4350 (3)
- CIVILENG 5001 (3)
- CIVILENG 5130 (3)
- CIVILENG 5240 (3)
- CIVILENG 5340 (3)

Ag Structures & Facilities:
- ASM 2240 (3)
- MECHENG 3360 (3)
- MECHENG 5512 (2)
- MECHENG 5541 (3)
- STAT 3470 (3)
- CIVILENG 2810 (3)
- STAT 3470 (3)
- MECHENG 3670 (4)
- MECHENG 5372 (3)
- MECHENG 5427 (3)
- CIVILENG 5420 (3)

Applied Biological or Agricultural Sciences Electives (3-4 hrs required)
(NOTE: These hours plus Tech Elec Hrs above must = 18 hrs minimum)

- Animal Sciences 2200.01 (3), 2200.02 (opt.) (1)
- Horticulture and Crop Science 2200 (3)
- Environmental and Natural Resources 3000 (3), 3001(opt.) (1)

General Education Requirement

Writing and Communication
- English 1110.xx 3 hr
- Second Writing Course* 3 hr

*Recommend ENGR 2367

Social Science
Only one course per Social Science group may count.
- 3 hr
- 3 hr

Literature
- 3 hr

Visual and Performing Arts
- 3 hr

Historical Study
- 3 hr

Second Historical Study or Cultures and Ideas
- 3 hr

Social Diversity in the United States
Course may overlap with another general education category:
- 0 / 3 hr

Ethics
Course may overlap with another general education category:
- 0 / 3 hr

Foreign Language
Pre-approved substitutions

A. Credit (including EM) for a foreign language sequence through 1103, or credit for a foreign language course with a prerequisite of 1103, can be substituted for one Gen Ed course requirement as a Cultures & Ideas.

B. Completion of a foreign language minor can be substituted for two Gen Ed courses: one course as a Social Science, (Individuals & Groups or Organizations & Polities subgroups only) and one course as either a Literature or a Cultures & Ideas.

Parameters: Students must choose either Substitution A OR Substitution B. Both substitutions cannot be applied simultaneously.

University Capstone (Cross-Disciplinary Seminar)
Pre-approved substitutions
Completion of a Social Science 3597 or 4597 can be substituted for a Social Science general education course in any group. Completion of an Arts & Humanities 3597 or 4597 can be substituted for a Visual/Performing Arts general education course.

See the list of approved general education courses for additional details: www.advising.engineering.osu.edu