B.S. Food, Agricultural and Biological Engineering  2015-2016 Academic Year
Agricultural Engineering Specialization

Student Information
Name: __________________________ OSU ID: __________________________ OSU Admit Term: ____________
Phone: __________________________ Email (name.number@osu.edu): __________________________

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>
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<tr>
<td>1</td>
<td>ENGR 1110.10 (Engineering Survey 1).............................................. 0.5 hr</td>
<td>ENGR 1120.10 (Engineering Survey 2).............................................. 0.5 hr</td>
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<tr>
<td></td>
<td>ENGR 1181 (Fundamentals of ENGR 1)*.................................... 2 hr</td>
<td>CHEM 1250 (Chem for Engineers)................................. 4 hr</td>
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<td></td>
<td>MATH 1151 (Calculus 1)*........................................... 5 hr</td>
<td>ENGR/CSE 1221 or 1222 (Programming).............................. 2-3 hr</td>
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<td></td>
<td>PHYSICS 1250 (Mechanics, Thermal, Waves).................... 5 hr</td>
<td>ENGR 1182 (Fundamentals of ENGR 2)*............................. 2 hr</td>
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<td>General Education............................................. 3 hr</td>
<td>MATH 1172 (Calculus II)*.......................................... 5 hr</td>
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<td>* Honors and Scholars versions available</td>
<td>ENGLISH 1110 (1st Writing Course - Gen Ed).............. 3 hr</td>
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<td>2</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>__ PHYSICS 1251 (E&amp;M, Optics, Modern Phys).................. 5 hr</td>
<td>__ Applied Biol or Ag Science Elective...................... 3 hr</td>
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<td>__ ENGR 2367 (2nd Writing Course – Gen Ed)................... 3 hr</td>
<td>__ General Education (or Solid Works, see **)................ 3 hr</td>
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<td>3</td>
<td>__ FABE 3120 (Thermodynamics in FABE)....................... 4 hr</td>
<td>__ FABE 3130 (Heat &amp; Mass Transfer in FABE)..................... 4 hr</td>
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<td>__ FABE 3810 (Ag Structures)................................ 2 hr</td>
<td>__ FABE 3140 (Professional Dev in FABE)......................... 1 hr</td>
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<td>__ MECHENG 2030 (Dynamics).................................. 3 hr</td>
<td>__ FABE 3150 (System Dynamics &amp; Electricity).................. 4 hr</td>
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<td>__ Technical Electives......................................... 5 hr</td>
<td>__ FABE 3610 (Utilization of Energy in Ag.)..................... 3 hr</td>
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<td>**ENGR 4410.01 (AUTOCAD)..................................... 2 hr</td>
<td>__ Technical Elective............................................. 3 hr</td>
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<td>__ General Education............................................. 3 hr</td>
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<tr>
<td>4</td>
<td>__ FABE 4900 (Capstone Design 1)............................. 3 hr</td>
<td>**Required Senior Exit Survey via E-mail for FABE</td>
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<tr>
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<td>__ FABE 5160 (Elec, Msmts, &amp; Instrumentation)............. 4 hr</td>
<td>__ FABE 4910 (Capstone Design 2)................................. 3 hr</td>
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<td>__ FABE 5820 (Environmnt Controls &amp; Air Quality)........... 3 hr</td>
<td>__ FABE 5730 (Design of Ag Water Mgmt Systems)............ 3 hr</td>
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<td>__ Technical Elective......................................... 2 hr</td>
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<td>__ General Education.......................................... 3 hr</td>
<td>__ Technical Electives.......................................... 3 hr</td>
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<td>__ General Education.......................................... 3 hr</td>
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Total Hours to complete the degree program = 132

**Power & Machinery specialization students take Engineering 4410.02 in Spring Semester and a GE during AU Semester.

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 this program is based on eligibility point hour ratio (EPHR) of Math 1151, 1172; Engineering 1181 and 1182 (if completed); Chemistry 1250 (or 1210); and Physics 1250. Applications are accepted every academic term (Autumn, Spring, Summer).

Revised 5/22/2015
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 3800  (3)
- ISE 4500  (3)
- ISE 5530  (3)
- MSE 2010  (3)
- MSE 5951  (3)
- MECHENG 3360  (3)
- MECHENG 3670  (4)
- MECHENG 3671  (3)
- 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 5550  (3)
- FABE 5750  (3)
- ISE 3800  (3)
- ISE 5800  (3)
- STAT 3470  (3)
- WELDENG 4202  (4)
- CIVILENG 5420  (3)
- CIVILENG 5430  (3)
- CIVILENG 5512  (2)
- CIVILENG 5530  (3)
- CIVILENG 5531  (2)
- CIVILENG 5680  (4)
- CIVILENG 5682  (4)
- CIVILENG 5800  (4)
- CIVILENG 5820  (3)
- CIVILENG 5830  (3)
- CIVILENG 5840  (3)
- CIVILENG 5850  (3)
- CIVILENG 5951  (3)

**Ag Soil & Water:**
- CIVILENG 3160  (3)
- CIVILENG 3540  (3)
- CIVILENG 4350  (3)
- CIVILENG 5001  (4)
- CIVILENG 5130  (3)
- CIVILENG 5240  (3)
- CIVILENG 5420  (3)
- CHBE 5771  (3)
- CHEM 2310  (4)
- ISE 3800  (3)
- ISE 5800  (3)
- STAT 3470  (3)

**Ag Structures & Facilities:**
- ASM 2240  (3)
- CIVILENG 2810  (3)
- CIVILENG 3540  (3)
- CIVILENG 4320  (3)
- CIVILENG 4350  (3)
- CIVILENG 4820  (3)
- ISE 3800  (3)
- MECHENG 3360  (3)
- MECHENG 5139  (3)
- MECHENG 5512  (2)
- MECHENG 5541  (3)
- STAT 3470  (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)
- Biology 2100 (4)
- Environmental and Natural Resources 3000 (3), 3001(opt.) (1)
- Horticulture and Crop Science 2200 (3)

**General Education Requirement**

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

**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](http://www.advising.engineering.osu.edu).

Revised 5/22/2015