Crop and Soil Science

Want to get your hands dirty while making a difference? Our students work on solving the most complex agricultural and natural resource problems faced in Oregon, our nation and across the globe.

Students who want to make a measurable difference in our communities are perfect candidates for a degree in either crop science or soil science. Graduates of our program are in demand across the United States.

Students must select from one option:
- Agronomy
- Plant Breeding and Genetics
- Soil Science (also available via Ecampus)

Your Bachelor’s Degree (BS) in Crop and Soil Science

- A minimum of 180 credits are required for graduation; 60 must be upper division (300 and 400-level courses).
- A maximum of 124 credits earned at a community college may be applied toward a bachelor’s degree at OSU.
- Only courses with letter prefixes and numbers above 100 are accepted.
- More info at: agsci.oregonstate.edu/degree/crop-and-soil-science-bs-degree

Courses Required for Crop and Soil Science Major

<table>
<thead>
<tr>
<th>CSS Core Requirements</th>
<th>TVCC Course</th>
<th>OSU Course</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>BIOL 211</td>
<td>BI LD2</td>
<td>If taking BI 211-213, students should take the entire series at either TVCC or OSU. <strong>Individual terms do not match between the two schools.</strong></td>
</tr>
<tr>
<td></td>
<td>BIOL 212</td>
<td>BI LD2</td>
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<tr>
<td></td>
<td>BIOL 213</td>
<td>BI LD2</td>
<td></td>
</tr>
<tr>
<td>Intro to Crop &amp; Soil Science</td>
<td>--</td>
<td>SOIL 101</td>
<td>Available online at OSU</td>
</tr>
<tr>
<td>Soil Science</td>
<td>--</td>
<td>SOIL 205/206</td>
<td>Available online at OSU as CSS 205</td>
</tr>
</tbody>
</table>

Courses Required for Crop & Soil Science Major: Option specific coursework

<table>
<thead>
<tr>
<th>CSS Option Requirements</th>
<th>TVCC Course</th>
<th>OSU Course</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agronomy</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Chemistry</td>
<td>CHEM 221</td>
<td>CH 231/261</td>
<td>Lecture &amp; lab for 200-level Chemistry have separate course numbers at OSU</td>
</tr>
<tr>
<td></td>
<td>CHEM 222</td>
<td>CH 232/262</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHEM 223</td>
<td>CH 233/263</td>
<td></td>
</tr>
<tr>
<td>Calculus</td>
<td>--</td>
<td>MTH 241</td>
<td>Complete one(1) course from options</td>
</tr>
<tr>
<td></td>
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<td>MTH 245</td>
<td>All courses listed: Available online at OSU</td>
</tr>
<tr>
<td></td>
<td>MTH 251</td>
<td>MTH 251</td>
<td></td>
</tr>
<tr>
<td>Courses Required for Crop &amp; Soil Science Major:</td>
<td>Option specific coursework</td>
<td></td>
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<td>-----------------------------------------------</td>
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<tr>
<td><strong>CSS Option Requirements</strong></td>
<td><strong>TVCC Course</strong></td>
<td><strong>OSU Course</strong></td>
<td><strong>Notes</strong></td>
</tr>
<tr>
<td><strong>Agronomy (cont. from previous page)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crop Ecology &amp; Morphology</td>
<td>CSS 200</td>
<td>CROP 200</td>
<td>Available online at OSU</td>
</tr>
<tr>
<td>Ag and Food Management</td>
<td>AREC 211</td>
<td>AEC 211</td>
<td></td>
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<tr>
<td>Ag and Food Marketing</td>
<td>AREC 221</td>
<td>AEC 221</td>
<td></td>
</tr>
<tr>
<td>Economics</td>
<td>--</td>
<td>AEC 250</td>
<td>Complete one(1) course from options</td>
</tr>
<tr>
<td></td>
<td>EC 201</td>
<td>ECON 201</td>
<td>AEC 250: Available online at OSU</td>
</tr>
<tr>
<td><strong>General Electives</strong></td>
<td><strong>PHYS 201</strong></td>
<td><strong>PH 201</strong></td>
<td>Complete 7-8 credits</td>
</tr>
<tr>
<td>Physics</td>
<td>WR 227</td>
<td>WR 327 (LD)</td>
<td></td>
</tr>
<tr>
<td>Technical Writing</td>
<td>BIOL 234</td>
<td>MB 230</td>
<td></td>
</tr>
<tr>
<td>Microbiology</td>
<td>CHEM 227</td>
<td>CH 331</td>
<td></td>
</tr>
<tr>
<td>Organic Chemistry</td>
<td>CHEM 229</td>
<td>CH 332</td>
<td></td>
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<tr>
<td></td>
<td>CHEM 228</td>
<td>CH 337</td>
<td></td>
</tr>
<tr>
<td><strong>Plant Breeding &amp; Genetics</strong></td>
<td><strong>CHEM 121</strong></td>
<td><strong>CH LDT</strong></td>
<td>Only select one full sequence (either all 100-level, or 200-level)</td>
</tr>
<tr>
<td>(cross listed with Horticulture)</td>
<td><strong>CHEM 122</strong></td>
<td><strong>CH 122</strong></td>
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<td></td>
<td><strong>CHEM 123</strong></td>
<td><strong>CH 123</strong></td>
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<tr>
<td></td>
<td><strong>CHEM 221</strong></td>
<td><strong>CH 231/261</strong></td>
<td>Lecture &amp; lab for 200-level Chemistry have separate course numbers at OSU</td>
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<td><strong>CHEM 222</strong></td>
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<td></td>
<td><strong>CHEM 223</strong></td>
<td><strong>CH 233/262</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Chemistry</strong></td>
<td><strong>MTH 112</strong></td>
<td><strong>MTH 112</strong></td>
<td>Complete one(1) course from options</td>
</tr>
<tr>
<td>Elementary Functions</td>
<td><strong>MTH 251</strong></td>
<td><strong>MTH 251</strong></td>
<td>All courses listed: Available online at OSU</td>
</tr>
<tr>
<td>Calculus</td>
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<tr>
<td><strong>Plant Materials</strong></td>
<td><strong>CSS 200</strong></td>
<td><strong>CROP 200</strong></td>
<td>Complete one(1) course from options</td>
</tr>
<tr>
<td>Crop Eco &amp; Morph</td>
<td></td>
<td></td>
<td>All courses listed: Available online at OSU</td>
</tr>
<tr>
<td>Landscape PM 1</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Landscape PM 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Herbaceous Ornamental</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Soil Science</strong> (continued on next page)</td>
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</tr>
<tr>
<td><strong>Chemistry</strong></td>
<td><strong>CHEM 121</strong></td>
<td><strong>CH LDT</strong></td>
<td>Only select one full sequence (either all 100-level, or 200-level)</td>
</tr>
<tr>
<td></td>
<td><strong>CHEM 122</strong></td>
<td><strong>CH 122</strong></td>
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<tr>
<td></td>
<td><strong>CHEM 221</strong></td>
<td><strong>CH 231/261</strong></td>
<td>Lecture &amp; lab for 200-level Chemistry have separate course numbers at OSU</td>
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<td></td>
<td><strong>CHEM 222</strong></td>
<td><strong>CH 232/262</strong></td>
<td></td>
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<tr>
<td></td>
<td><strong>CHEM 223</strong></td>
<td><strong>CH 233/262</strong></td>
<td></td>
</tr>
<tr>
<td><strong>College Algebra</strong></td>
<td><strong>MTH 111</strong></td>
<td><strong>MTH 111</strong></td>
<td>Minimum requirement; see TRACK for more detail below</td>
</tr>
<tr>
<td><strong>Crop Ecology &amp; Morphology</strong></td>
<td><strong>CSS 200</strong></td>
<td><strong>CROP 200</strong></td>
<td>Other course options available post-transfer</td>
</tr>
<tr>
<td><strong>General Electives</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Ag and Food Mgmt Economics</td>
<td><strong>AREC 211</strong></td>
<td><strong>AEC 211</strong></td>
<td>Complete 12 credits</td>
</tr>
<tr>
<td>Gen Chm. Living Systems</td>
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<td></td>
<td>All courses listed = Available online at OSU</td>
</tr>
<tr>
<td>Organic Chemistry</td>
<td><strong>CHEM 225</strong></td>
<td><strong>CH 130</strong></td>
<td></td>
</tr>
<tr>
<td>Organic Chemistry</td>
<td><strong>CHEM 226</strong></td>
<td><strong>CH 331 (LD)</strong></td>
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</tr>
<tr>
<td>Calculus</td>
<td><strong>MATH 251</strong></td>
<td><strong>MTH 251</strong></td>
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<tr>
<td>Calculus</td>
<td><strong>MATH 252</strong></td>
<td><strong>MTH 252</strong></td>
<td></td>
</tr>
<tr>
<td>Physics</td>
<td><strong>PHYS 201</strong></td>
<td><strong>PH 201</strong></td>
<td></td>
</tr>
<tr>
<td>Physics</td>
<td><strong>PHYS 202</strong></td>
<td><strong>PH 202</strong></td>
<td></td>
</tr>
<tr>
<td>Org. Farm &amp; Garden</td>
<td>--</td>
<td><strong>HORT 260</strong></td>
<td></td>
</tr>
</tbody>
</table>

Updated July 2019
### Courses Required for Crop & Soil Science Major: Option specific coursework

**Soil Science** (continued from previous page)

<table>
<thead>
<tr>
<th><strong>SOIL RESEARCH</strong></th>
<th><strong>Math</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Earth Science</td>
<td></td>
</tr>
<tr>
<td>G 202</td>
<td>GEO 201</td>
</tr>
<tr>
<td>G/GEOL 201</td>
<td>GEO 202</td>
</tr>
<tr>
<td>--</td>
<td>GEO 203</td>
</tr>
<tr>
<td>--</td>
<td>GEO 21</td>
</tr>
<tr>
<td>--</td>
<td>GEO 101</td>
</tr>
<tr>
<td>Calculus</td>
<td></td>
</tr>
<tr>
<td>MTH 251</td>
<td>MTH 251</td>
</tr>
<tr>
<td>PHYS 201</td>
<td>PH 201</td>
</tr>
<tr>
<td>PHYS 202</td>
<td>PH 202</td>
</tr>
</tbody>
</table>

Complete one(1) course from Earth Science options, complete Calculus, and all Physics

GEO 221/101 = Available online at OSU

If interested in pursuing graduate school, recommended for students to complete entire Physics series: PH 201, 202, 203

If complete MTH 251, will fulfill the MTH 111 req.

**General Soils**

<table>
<thead>
<tr>
<th><strong>Earth Science</strong></th>
<th><strong>Math</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>G 202</td>
<td>GEO 201</td>
</tr>
<tr>
<td>G/GEOL 201</td>
<td>GEO 202</td>
</tr>
<tr>
<td>--</td>
<td>GEO 203</td>
</tr>
<tr>
<td>--</td>
<td>GEO 221</td>
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<tr>
<td>--</td>
<td>GEO 101</td>
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<tr>
<td>MATH 112</td>
<td>MTH 112</td>
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<tr>
<td>--</td>
<td>MTH 241</td>
</tr>
<tr>
<td>--</td>
<td>MTH 245</td>
</tr>
</tbody>
</table>

Complete one(1) course from Earth Science options, and one(1) course from the Math options

GEO 221/101, MTH 241/245 = Available online at OSU

If complete MTH 112, 241, OR 245 will also fulfill the MTH 111 requirement

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### General Education Courses (called the Baccalaureate Core)

- Complete one course in each Perspective category with no more than two in the same department.
- Full listing of Treasure Valley CC courses that fulfill Bacc Core requirements: [admissions.oregonstate.edu/baccalaureate-core-course-equivalencies-treasure-valley-community-college](admissions.oregonstate.edu/baccalaureate-core-course-equivalencies-treasure-valley-community-college)

<table>
<thead>
<tr>
<th><strong>SKILLS COURSES</strong></th>
<th><strong>Completed as part of major</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Math</td>
<td>WR 121. Required to transfer.</td>
</tr>
<tr>
<td>Writing I</td>
<td>Can be completed as part of major: see advisor</td>
</tr>
<tr>
<td>Writing II</td>
<td>Choose one course from BaccCore link above</td>
</tr>
<tr>
<td>Speech (Writing III)</td>
<td>HPE 295</td>
</tr>
<tr>
<td>Fitness (HHS 231 and 241)</td>
<td></td>
</tr>
</tbody>
</table>

| **PERSPECTIVE COURSES** | **Completed as part of major** |
| Biological Science | |
| Physical Science | |
| Additional Biological or Physical Science | |
| Cultural Diversity | |
| Literature and the Arts | |
| Social Processes and Institutions | |
| Western Culture | |

Choose one course from BaccCore link above

| **DPD COURSE** | **Completed as part of major** |
| Difference, Power, & Discrimination | Can be completed as part of major: see advisor |

| **SYNTHESIS COURSES** | **Upper division course, take through OSU** |
| Contemporary Global Issues | |
| Science, Technology, & Society | |

### Advising Contacts

Academic advisors at your community college and OSU are available to answer your questions and assist you in creating a transfer plan. See your community college advisor first and use this Transfer Guide to help you plan. It is important to speak with your OSU academic advisor early on, and often, to ensure correct course selection and sequencing. See [visitosu.oregonstate.edu/visit-campus](visitosu.oregonstate.edu/visit-campus) to schedule your personalized visit.

| **Treasure Valley Community College** | tvcc.cc/advising/index.cfm |
| **OSU College of Agricultural Sciences** | Stefan Seiter |
| **Student Advisor** | 541-737-6372 |
| | seiters@oregonstate.edu |