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 135 transfer credits 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](agsci.oregonstate.edu/degree/crop-and-soil-science-bs-degree)

Courses Required for Crop and Soil Science Major

This list is not comprehensive. Contact an OSU advisor for more information.

<table>
<thead>
<tr>
<th>CSS Core Requirements</th>
<th>Equivalent MHCC Course</th>
<th>OSU Course</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>BI 211</td>
<td>BI LD2</td>
<td>-Only select one full series (either all 211-213 or all of 221-223)</td>
</tr>
<tr>
<td></td>
<td>BI 212</td>
<td>BI LD2</td>
<td>-OSU now only offers BI 221-223. If taking BI 211-213, you must take entire series at Mt Hood CC. Refer to <a href="https://admissions.oregonstate.edu/ld1-and-ld2-explained">https://admissions.oregonstate.edu/ld1-and-ld2-explained</a> to learn more about BI LD2 equivalency.</td>
</tr>
<tr>
<td></td>
<td>BI 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>MHCC Course</th>
<th>OSU Course</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agronomy</td>
<td>CH 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>CH 222</td>
<td>CH 232/262</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CH 223</td>
<td>CH 233/263</td>
<td></td>
</tr>
</tbody>
</table>
## Courses Required for Crop & Soil Science Major: Option specific coursework

### CSS Option Requirements | MHCC Course | OSU Course | Notes
---|---|---|---
### Agronomy (cont. from previous page)
- Crop Ecology & Morphology
  - --
  - CROP 200
  - Available online at OSU
- Ag and Food Management
  - --
  - AEC 211
  - Available online at OSU
- Ag and Food Marketing
  - --
  - AEC 221
  - Available online at OSU
- Economics
  - EC 201
  - ECON 201
  - Complete one(1) course from options
  - AEC 250: Available online at OSU

### General Electives
- Physics
  - PH 201
  - PH 201
- Technical Writing
  - WR 227
  - WR 327 (LD)
- Microbiology
  - BI 234
  - MB 230
- Organic Chemistry
  - CH 241
  - CH 331
  - CH 243
  - CH 332
  - CH 242
  - CH 337
- Complete 7-8 credits

- (LD) = Lower Division Transfer
- Must pass the ACS organic exam offered as part of MHCC course to receive upper division credit:
  - [chemistry.oregonstate.edu/content/organic-chemistry-transfer-policies](http://chemistry.oregonstate.edu/content/organic-chemistry-transfer-policies)

### Plant Breeding & Genetics (cross listed with Horticulture)
- Chemistry
  - CH 121
  - CH 122
  - CH 123
  - CH 221
  - CH 231/261
  - CH 222
  - CH 232/262
  - CH 223
  - CH 233/262
  - CH 121-123: Available online at OSU
  - Only select one full sequence (either all 100-level, or 200-level)
  - Lecture & lab for 200-level Chemistry have separate course numbers at OSU

- Math
  - MTH 112
  - MTH 241
  - MTH 245
  - MTH 251
  - Complete one(1) course from options
  - All courses listed: Available online at OSU

- Plant Materials
  - Crop Eco & Morph
    - --
    - CROP 200
    - Complete one(1) course from options
    - All courses listed: Available online at OSU
  - Landscape PM 1
    - --
    - HORT 226
  - Landscape PM 2
    - --
    - HORT 228
  - Herbaceous Ornamental
    - --
    - HORT 255

### Soil Science (continued on next page)

- Chemistry
  - CH 121
  - CH 122
  - CH 123
  - CH 221
  - CH 231/261
  - CH 222
  - CH 232/262
  - CH 223
  - CH 233/262
  - CH 121-123: Available online at OSU
  - Only select one full sequence (either all 100-level, or 200-level)
  - Lecture & lab for 200-level Chemistry have separate course numbers at OSU

- College Algebra
  - MTH 111
  - Minimum requirement; see TRACK for more detail below

- Crop Ecology & Morphology
  - --
  - CROP 200
  - Other course options available post-transfer
  - Available online at OSU

- General Electives
  - Ag and Food Mgmt
    - --
    - AEC 211
  - Economics
    - --
    - AEC 250
  - Gen Chm. Living Systems
    - CH 241
    - CH 331 (LD)
  - Organic Chemistry
    - CH 243
    - CH 332 (LD)
  - Calculus
    - MTH 251
    - MTH 252
  - Calculus
    - MTH 251
    - MTH 252
  - Physics
    - PH 201
    - PH 202
  - Physics
    - PH 201
    - PH 202
  - Org. Farm & Garden
    - --
    - HORT 260
  - Complete 12 credits
  - (LD) = Lower Division Transfer
  - All courses listed = 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 or 252, will also fulfill the MTH 111 requirement

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Updated August 2020
Courses Required for Crop & Soil Science Major: Option specific coursework

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

| Choose Track: Soil Research, General Soils |
|-----------------------------------------|---------------------------------|
| **SOIL RESEARCH**                      | **perspective category**        |
| Earth Science                          | G 201                           | GEO 201                           |
|                                      | G 202                           | GEO 202                           |
|                                      | G 203                           | GEO 203                           |
|                                      | --                              | GEO 221                           |
|                                      | --                              | GEO 101                           |
| Calculus                               | MTH 251                         | MTH 251                           |
|                                      | PH 201                          | PH 201                            |
|                                      | PH 202                          | PH 202                            |
| Calculus                               | G 201                           | GEO 201                           |
|                                      | G 202                           | GEO 202                           |
|                                      | G 203                           | GEO 203                           |
|                                      | --                              | GEO 221                           |
|                                      | --                              | GEO 101                           |
|                                      | MTH 112                         | MTH 112                           |
|                                      | --                              | MTH 241                           |
|                                      | --                              | MTH 245                           |
| **General Soils**                      | Complete one(1) course from Earth Science options, complete Calculus, and all Physics |
| Earth Science                          | 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 |
| Math                                   | If complete MTH 251, will fulfill the MTH 111 req. |
|                                      | 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 |

**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 Mt. Hood CC courses that fulfill Bacc Core requirements: [admissions.oregonstate.edu/baccalaureate-core-course-equivalencies-mount-hood-community-college](http://admissions.oregonstate.edu/baccalaureate-core-course-equivalencies-mount-hood-community-college)

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

<table>
<thead>
<tr>
<th><strong>Perspective Courses</strong></th>
<th>Biological Science</th>
<th>Completed as part of major</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Physical Science</td>
<td>Completed as part of major</td>
</tr>
<tr>
<td></td>
<td>Additional Biological or Physical Science</td>
<td>Completed as part of major</td>
</tr>
<tr>
<td></td>
<td>Cultural Diversity</td>
<td>Choose one course from BaccCore link above</td>
</tr>
<tr>
<td></td>
<td>Literature and the Arts</td>
<td>Choose one course from BaccCore link above</td>
</tr>
<tr>
<td></td>
<td>Social Processes and Institutions</td>
<td>Completed as part of major</td>
</tr>
<tr>
<td></td>
<td>Western Culture</td>
<td>Choose one course from BaccCore link above</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>DPD Course</strong></th>
<th>Difference, Power, &amp; Discrimination</th>
<th>Can be completed as part of major: see advisor</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Synthesis Course</strong></th>
<th>Contemporary Global Issues</th>
<th>Upper division course, take through OSU</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Science, Technology, &amp; Society</td>
<td>Upper division course, take through OSU</td>
</tr>
</tbody>
</table>

**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](http://visitosu.oregonstate.edu/visit-campus) to schedule your personalized visit.

<table>
<thead>
<tr>
<th>Mt. Hood Community College</th>
<th>mhcc.edu/Degrees_TransferGuides/</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSU College of Agricultural Sciences Student Advisor</td>
<td>Stefan Seiter</td>
</tr>
<tr>
<td></td>
<td>541-737-6372</td>
</tr>
<tr>
<td></td>
<td><a href="mailto:seiters@oregonstate.edu">seiters@oregonstate.edu</a></td>
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</table>