# Crop and Soil Science Degree Checklist

**Name:** ____________________________  
**ID:** ____________________________  
**Entering Status:** ____________________________

### University Core Requirements
(No single course can satisfy more than one core area)

#### Writing/Health
- WR 121 – English Composition (3)
- WR II (3)
- COMM (3)
- Writing Intensive (SOIL 325) (3)
- HHS 231 – Lifetime Fitness for Health (2)
- HHS 24 – Lifetime Fitness or PAC (1)
- Foreign Language (if deficient; waived for pre-1997 HS graduates)

#### Perspectives
(No more than 2 courses in one department)
- Western Culture
- Cultural Diversity
- Literature/Arts
- Social Processes
- Difference, Power, Dis.
- Biological Science (Met by major requirements)
- Physical Science (Met by major requirements)
- Phys. or Biol. Science (Met by major requirements)

#### Math
- MTH 105, 111, 112, 211, 241, 245 or 251 (4)
- MTH 251 (4)

### Synthesis/Upper Division
(Each course from a different department)

- Contemp. Global Issues (3) (*soil science electives meeting requirement)
- Science, Tech., Society (3) (**soil science electives meeting requirement)

### Major Core:

#### General Science Core
- MTH 111 – College Algebra (4)
- BI 211 – Principles of Biology (4)
- BI 212 – Principles of Biology (4)
- BI 213 – Principles of Biology (4)
- CH 121 or 221 – General Chemistry (5)
- CH 122 or 222 – General Chemistry (5)
- CH 123 or 223 – General Chemistry (5)

#### Orientation
- SOIL 101 - Intro. Horticulture, Crop, Soil, & Insect Science (1)

### Agricultural Sciences
- ENT 311 – Intro. to Insect Pest Management (4)
- SOIL 205 – Soil Science (4)

#### Select 1 of the following courses
- BOT 331 – Plant Physiology (4)
- CROP 200 – Crop Ecol. & Morphol. (3)
- HORT 301 – Biology of Horticulture (3)

#### Select 1 of the following courses
- HORT 316 – Plant Nutrit. (4)
- SOIL 316 – Nutrient Cycling in Agroeco. (3)

### Experiential Learning
- SOIL 401, 403 or 410 – Research/Thesis/Internship (3 cr)
- SOIL 407 – Senior Seminar (1)

### Ecology (Select 1 of the following courses)
- BI 370 – Ecology (3)
- BOT 341 – Plant Ecology (4)
- HORT 318 – Applied Ecology of Managed Ecosystems (3)
- RNG 341 – Rangeland Ecology and Mngt. (3)

### Technology
- SOIL 468 – Soil Landscape Analysis (3)

### Writing Intensive
- SOIL 325 – Ag & Envir. Predicaments: A Case Study Approach (WIC) (3)

### Capstone
- SOIL 475 – Soil Resource Potentials (4)

### Option: Soil Science
**Term Entering:** ____________________________
**From:** ____________________________

#### Option Requirements

### Soils Research Track
- GEO 201 or 202 or 203 (4)
- MTH 251 (4)
- PH 201, 202 – General Physics (10)
- SOIL 436 - Environmental Soil Physics (3)
- SOIL 445 – Environmental Soil Chemistry (3)
- SOIL 455 – Biology of Soil Ecosystems (4)
- SOIL 466 – Soil Morphology & Classification (4)
- ST 351 – Intro. to Statistical Methods (4)

#### OR

### General Soils Track
- GEO 201 or 202 or 203 (4)
- MTH 112 (4) or MTH 241 (4) or MTH 251 (4)
- SOIL 466 – Soil Morphology & Classification (4)
- ST 351 – Intro. to Statistical Methods (4)

#### Select 1 of the following courses:
- SOIL 435 - Environmental Soil Physics (3)
- SOIL 445 – Environmental Soil Chemistry (3)
- SOIL 455 – Biology of Soil Ecosystems (4)
- SOIL 366 - Ecosystems of Wildland Soils (3)

### Soil Science Electives (Select a minimum of 12 credits)

#### Nutrient Cycling
- AREC 211 – Management in Agriculture (4)
- AREC 250 – Intro to Environmental Econ & Policy (3)
- BI/FS/TOX 435 – Genes & Chemicals in Agriculture: Value & Risk (3)**
- BOT 331 – Plant Physiology (4)
- BOT 547 – Nutrient Cycling (3)
- CH 130 – General Chemistry of Living Systems (4)
- CROP 199 – Special Topics: Issues in Sustainable Ag (1)
- FOR 365 – Iss. in Natural Resource Conservation (3)**
- HORT 316 – Plant Nutrition (4)
- RNG 341 – Rangeland Ecology & Management (3)
- SOIL 395 – World Soil Resources (2)**
- SOIL 525 – Mineral-Organic Matter Interactions (3)
- TOX 430 – Chemical Behavior in the Environment (3)

#### Soil Biology/Ecology
- BI 311 – Genetics (4)
- BI 314 – Cellular & Molecular Biology (4)
- BI/FS/TOX 435 – Biotech: Ag, Food, & Resource Issues (3)**
- BOT 370 – Ecology (3)
- BOT 331 – Plant Physiology (4)
- BOT 332 – Lab Techniques in Plant Biology (3)
- BOT 341 – Plant Ecology (3)
- CH 311 – Organic Chemistry (4)
- CH 332 – Organic Chemistry (4)
- FOR 341 – Forest Ecology (3)
- FS 564 – Interactions of Vegetation & Atmosphere (3)
- MB 302 – General Microbiology (3)
- MB 303 – General Microbiology Lab (2)
- MB 448 – Microbial Ecology (3)
- SOIL 366 - Ecosystems of Wildland Soils (3)

#### Soil Hydrology
- CE 412 – Hydrology (4)
- CE 413 – GIS in Water Resources (3)
- FE 430 – Watershed Processes (4)
- FE 434 – Forest Watershed Management (4)
- GEO 335– Intro to Water Science & Policy (3)**
- GEO 365 – Intro to Geographic Info Systems (4)
- GEO 424 – International Water Resources Management (3)
- GEO 487 – Hydrogeology (4)
- MTH 251 – Differential Calculus (4)
- MTH 252 – Integral Calculus (4)
- PH 202 – General Physics (5)

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*Optional major**

**General Soils**: 12 credits

**Soil Science**: 12 credits

**Soil Biology/Ecology**: 12 credits

**Soil Hydrology**: 12 credits

**Total**: 36 credits

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*Note: Courses with an asterisk (*) are required for Soil Science majors only.*

**Special Topics:**
- Intro to Water Science & Policy (3)**
- Intro to Geographic Info Systems (4)
- Special Topics: Issues in Sustainable Ag (1)

**Minimum credits required for major:** 12 credits

**Minimum credits required for minor:** 12 credits

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*Course options include a variety of electives and may need to be selected based on specific degree requirements.*
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
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<tbody>
<tr>
<td>AREC 250</td>
<td>Intro. Environ. Econ. &amp; Policy</td>
<td>3</td>
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<td>FE 434</td>
<td>Forest Watershed Management</td>
<td>4</td>
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<td>FOR 141</td>
<td>Tree &amp; Shrub Identification</td>
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<td>FOR 365</td>
<td>Issues in Natural Resources Con.</td>
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<td>GEO 301</td>
<td>Map &amp; Image Interpretation</td>
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<td>GEO 335</td>
<td>Intro to Water Science &amp; Policy</td>
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<td>GEO 365</td>
<td>Intro to Geographic Info. Systems</td>
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<td>GEO 423</td>
<td>Land Use</td>
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<td>GEO 432</td>
<td>Applied Geomorphology</td>
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<td>HORT 414</td>
<td>Information Systems in Agriculture</td>
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<td>PH 201</td>
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<td>PH 202</td>
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<td>RNG 341</td>
<td>Rangeland Ecology &amp; Management</td>
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<td>SOIL 366</td>
<td>Ecosystems of Wildland Soils</td>
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<td>AREC 250</td>
<td>Intro to Environ. Econ. &amp; Policy</td>
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<td>BI 301</td>
<td>Human Impacts on Ecosystems</td>
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<td>BI/Z 349</td>
<td>Biodiv. Causes, Conseqs., &amp; Conserv.</td>
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<td>BOT 350</td>
<td>Introductory Plant Pathology</td>
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<td>CROP 199</td>
<td>Special Topics: Issues in Sust. Agriculture</td>
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<td>CROP 300</td>
<td>Crop Production in Pacific Northwest Agroecosystems</td>
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<td>CROP 330</td>
<td>World Food Crops</td>
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<td>CROP 440</td>
<td>Weed Management</td>
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<td>CROP 460</td>
<td>Seed Production</td>
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<td>CROP 480</td>
<td>Case Studies Cropping Syst. Manage.</td>
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<td>GEO 300</td>
<td>Sustainability for the Common Good</td>
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<td>HORT 260</td>
<td>Organic Farming &amp; Gardening</td>
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<td>PS 475</td>
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<td>RNG 455</td>
<td>Riparian Ecology &amp; Management</td>
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<tr>
<td>SOIL 366</td>
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Total Units (need 180)

Upper Div. Units (need 60)