Soil Science (PhD)

Degree Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Required Courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSC 801</td>
<td>Seminar</td>
<td>1</td>
<td></td>
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<tr>
<td>SSC 893</td>
<td>Doctoral Supervised Research</td>
<td>2</td>
<td></td>
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<tr>
<td>or SSC 895</td>
<td>Doctoral Dissertation Research</td>
<td></td>
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<tr>
<td></td>
<td>Core Courses</td>
<td></td>
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<tr>
<td>SSC 511</td>
<td>Soil Physics</td>
<td>1</td>
<td></td>
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<tr>
<td>SSC 521</td>
<td>Soil Chemistry</td>
<td>1</td>
<td></td>
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<tr>
<td>SSC 532</td>
<td>Soil Microbiology</td>
<td>1</td>
<td></td>
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<tr>
<td>SSC 541</td>
<td>Soil Fertility</td>
<td>1</td>
<td></td>
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<tr>
<td>SSC 551</td>
<td>Soil Morphology, Genesis and Classification</td>
<td>1</td>
<td></td>
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<tr>
<td></td>
<td>Elective Courses</td>
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<tr>
<td></td>
<td>&quot;Elective Course&quot; will be determined in conjunction with the academic committee</td>
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<tr>
<td></td>
<td>Total Hours</td>
<td>72</td>
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1 Students must take at least one credit of SSC 801 Seminar.

2 Students are required to take a minimum of two credits of SSC 893 Doctoral Supervised Research or SSC 895 Doctoral Dissertation Research.

Additional Requirements

All Doctoral students must demonstrate competence in the five soil science sub-disciplines listed below.

- Soil Chemistry
- Soil Fertility and Plant Nutrition
- Soil Genesis and Classification
- Soil Microbiology and Biochemistry
- Soil Physics

The required competencies can be achieved by any combination of the following:

1. relevant course work from previous undergraduate and/or graduate degree programs;
2. prior professional experience in the major sub-discipline(s); and
3. graduate courses included in the student’s Plan of Work (POW) for their current degree program.

- Completion of at least 72 semester credit hours beyond the bachelor’s degree
  - If the student has an MS degree from another institution, a maximum of 18 hours of relevant graduate credit from that degree may be applied toward this minimum, upon the recommendation of the student’s Graduate Advisory Committee, and the minimum required will be 54 semester credit hours

- Completion of preliminary written and oral examinations must be completed within six calendar years from the date of admission
- Successful completion of an original research program
- Success completion of the final oral examination
- Completion of a non-credit exit seminar

Faculty

Full Professors

Aziz Amoozegar
**Area of Research:** Environmental Soil Physics

Stephen W. Broome
**Area of Research:** Environmental Soil Science

David A. Crouse
**Area of Research:** Soil Science Education

Owen W. Duckworth
**Area of Research:** Soil Biogeochemistry

Alan J. Franzluebbers
**Area of Research:** Soil Ecology and Management

John L. Havlin
**Area of Research:** Soil Fertility

Joshua L. Heitman
**Area of Research:** Soil Physics & Hydrology

Richard A. McLaughlin
**Area of Research:** Urban Soil & Water Management

Michael D. Mullen
**Area of Research:** Soil Biology & Soil Science Education

Deanna L. Osmond
**Area of Research:** Soil Fertility & Watershed Management

Wei Shi
**Area of Research:** Soil Microbiology & Ecology

Michael J. Vepraskas
**Area of Research:** Wetland Soils & Pedology

Associate Professors

Alexandria K. Graves
**Area of Research:** Soil Microbiology

Assistant Professors

Kevin Garcia
**Area of Research:** Plant-Microbe Interactions & Nutrient Transport
Terrence G. Gardner  
**Area of Research:** Soil & Environmental Microbial Ecology

Luciano C. Gatiboni  
**Area of Research:** Soil Fertility & Nutrient Management

Amy M. Johnson  
**Area of Research:** Soil Science

Stephanie B. Kulesza  
**Area of Research:** Nutrient Management and Animal Waste

Matthew C. Ricker  
**Area of Research:** Pedology

Alex L. Woodley  
**Area of Research:** Sustainable Agricultural Systems

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**Practice/Research/Teaching Professors**

Robert E. Austin  
**Area of Research:** Geospatial Information and Analytics in Soils, Agriculture and Environmental Science

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**Emeritus Faculty**

Stanley W. Buol  
Keith Cassel  
Maurice Cook  
Fred Cox  
Carl Crozier  
George Cummings  
J. Wendell Gilliam  
Dean L. Hesterberg  
Daniel Israel  
Joseph Kleiss  
David Lindbo  
Gordon Miner  
George C. Naderman Jr.  
Wayne Robarge  
Thomas J. Smyth  
Richard Volk  
Michael Wagger  
Jeffrey G. White  
Arthur Wollum