## Soil Science (MS)

### 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><strong>Required Courses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSC 601</td>
<td>Seminar 1</td>
<td>7-14</td>
<td></td>
</tr>
<tr>
<td>SSC 620</td>
<td>Special Problems 2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>SSC 693</td>
<td>Master's Supervised Research 3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>or SSC 695</td>
<td>Master's Thesis Research</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td><strong>Core Courses</strong></td>
<td>4-7</td>
<td></td>
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<tr>
<td></td>
<td>Select four of the following courses: 4</td>
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<tr>
<td>SSC 511</td>
<td>Soil Physics</td>
<td></td>
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<tr>
<td>SSC 521</td>
<td>Soil Chemistry</td>
<td></td>
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<tr>
<td>SSC 532</td>
<td>Soil Microbiology</td>
<td></td>
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<tr>
<td>SSC 541</td>
<td>Soil Fertility</td>
<td></td>
<td></td>
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<tr>
<td>SSC 551</td>
<td>Soil Morphology, Genesis and Classification</td>
<td></td>
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<td></td>
<td><strong>Undergraduate Courses</strong></td>
<td>6</td>
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<td></td>
<td>400-Level undergraduate courses from outside soil science will be determined in conjunction with the academic committee</td>
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<tr>
<td></td>
<td><strong>Elective Courses</strong></td>
<td>18</td>
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<tr>
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<td>“Elective Courses” will be determined in conjunction with the academic committee</td>
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<tr>
<td></td>
<td><strong>Total Hours</strong></td>
<td>30</td>
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</table>

1. Students can take no more than two credits of SSC 601 Seminar total.
2. Students can take four to six credits of SSC 620 Special Problems.
3. Students are required to take a minimum of two credits and no more than six credits of SSC 693 Master's Supervised Research or SSC 695 Master's Thesis Research.
4. Students may have courses waived upon proving competency in the following coursework.
5. Students must take at least 18 hours of letter-graded course work – these must be NC State courses or inter-institutional courses (https://studentservices.ncsu.edu/your-classes/exchange-programs/inter-institutional-program/).

### Additional Requirements

- Successful completion of a research problem
- Non-credit exit seminar
- Additional credit hours of seminar and research may be taken in addition to the required 30 credit hours to fulfill continuous registration requirements, but do not need to be listed on the POW

### 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:** Soil Biology & Soil Science Education
- Michael D. Mullen
  - **Area of Research:** Urban Soil & Water Management
- 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

Practice/Research/Teaching Professors

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

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