Assessment: Assessment Plan

Degree Program - CASNR - Plant and Soil Science (MS)

CIP Code: 01.1102.00
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Program Purpose Statement: The College of Agriculture and Science and Natural Resources is dedicated to providing programs of excellence in teaching, research and outreach. These educational programs are designed to prepare the student for the dynamic agricultural and renewable natural resources industry- an industry that encompasses five closely related segments: (1) producing agricultural products; (2) supplying agricultural chemical, feed, seed, and other production resources; (3) processing, storing, distributing, and other marketing functions for agricultural products; (4) planning and managing programs for renewable natural resources; and (5) providing technical assistance financing, services, education, research, and communications in all sectors of the food, feed, fiber, and natural resource complex.

Modality: 100% Online, Face-to-Face

Student Learning Outcome: Develop an understanding of both Applied and Theoretical Knowledge principles of Plant and Soil Science

Students will develop and demonstrate theoretical and applied knowledge within their field of Plant and Soil Science.

Outcome Status: Active
Outcome Type: Student Learning
Start Date: 08/25/2014

Assessment Methods

<table>
<thead>
<tr>
<th>Assessment Method</th>
<th>Criterion</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral exam - Students will write a thesis as evidence of applied and theoretical knowledge in their field of Plant and Soil Science (Active)</td>
<td>95% of all students will successfully complete a thesis and defend their applied and theoretical knowledge in their field of Plant and Soil Science</td>
<td>This will occur at the oral defense</td>
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<tr>
<td>Case Studies - Develop relevant literature review of the research project (Active)</td>
<td>95% of all students will develop relevant literature review of the research project</td>
<td>We are in the process of revising our graduate curriculum. We expect this to take about one year to complete. Once completed, we will revise our assessment criterion.</td>
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Oral exam - Students will successfully complete their thesis project and successfully defend their applied and theoretical knowledge of Plant and Soil Science at their oral exam (Active)

Criterion: 95% of all students will successfully complete their thesis research and defend their field of applied and theoretical knowledge of Plant and Soil Science
Schedule: We are in the process of revising our graduate curriculum. We expect this to take about one year to complete. Once completed, we will revise our assessment criterion.

Oral exam - Students will successfully complete their thesis project and successfully defend their applied and theoretical knowledge of Plant and Soil Science at their oral exam (Active)

Criterion: 95% of all students will successfully complete their thesis research and defend their field of applied and theoretical knowledge of Plant and Soil Science
Schedule: We are in the process of revising our graduate curriculum. We expect this to take about one year to complete. Once completed, we will revise our assessment criterion.
Student Learning Outcome: Methodological Research Expertise and Critical Thinking

Students will demonstrate the use of critical thinking to identify problems and derive conclusions in a complex global society

Outcome Status: Active
Outcome Type: Student Learning
Start Date: 08/25/2014

Assessment Methods

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<th>Course Level Assessment</th>
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<tr>
<td>Students will defend their individual project and general knowledge in the field of Plant and Soil Science (Active)</td>
<td></td>
</tr>
<tr>
<td>Criterion: 95% of all students will successfully defend their individual project and general knowledge in the field of Plant and Soil Science</td>
<td></td>
</tr>
<tr>
<td>Schedule: We are in the process of revising our graduate curriculum. We expect this to take about one year to complete. Once completed, we will revise our assessment criterion.</td>
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Course Level Assessment - Non-thesis master students will present a comprehensive oral exam (Active)

Criterion: 95% of all students will successfully present a comprehensive oral exam in the field of Plant and Soil Science

Schedule: We are in the process of revising our graduate curriculum. We expect this to take about one year to complete. Once completed, we will revise our assessment criterion.

Course Level Assessment - Students will write scientific peer-review publications and submit abstract for oral presentation (Active)

Criterion: 95% of all students will write peer-review publications and submit abstract for oral presentation

Schedule: We are in the process of revising our graduate curriculum. We expect this to take about one year to complete. Once completed, we will revise our assessment criterion.

Student Learning Outcome: Ability to design experiments and analyze data

Students will demonstrate their ability to design experimental plan for their research and analyze data generated

Outcome Status: Active
Outcome Type: Student Learning
Start Date: 08/25/2014

Assessment Methods

<table>
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<tr>
<td>Master's Comprehensive Exam - Students will defend their individual project and general knowledge in the field of Plant and Soil Science (Active)</td>
<td></td>
</tr>
<tr>
<td>Criterion: 95% of students will successfully defend their thesis in their field of Plant and Soil Science.</td>
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</tr>
<tr>
<td>Schedule: This will occur at the comprehensive exam. We are in the process of revising our graduate curriculum. We expect this to take about one year to complete. Once completed, we will revise our assessment criterion.</td>
<td></td>
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</tbody>
</table>

Performance - Develop experimental design to conduct research project (Active)

Criterion: 95% of all students will develop scientifically sound experimental plan to conduct their research

Schedule: We are in the process of revising our graduate curriculum. We expect this to take about one year to complete. Once completed, we will revise our assessment criterion.
### Degree Program - CASNR - Plant and Soil Science (MS)

<table>
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<tr>
<th>Performance</th>
<th>Develop statistical means to analyze data produced in their research project (Active)</th>
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<tbody>
<tr>
<td>Criterion:</td>
<td>95% of all students will develop statistical means to analyze data produced in their research project</td>
</tr>
<tr>
<td>Schedule:</td>
<td>We are in the process of revising our graduate curriculum. We expect this to take about one year to complete. Once completed, we will revise our assessment criterion.</td>
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### Student Learning Outcome: Develop Communication Skills

Students will demonstrate their ability to communicate in oral form appropriate for a career in Plant and Soil Science

- **Outcome Status:** Active
- **Outcome Type:** Student Learning
- **Start Date:** 08/25/2014

#### Assessment Methods

- **Course Level Assessment -** Students will present their thesis research in an oral presentation in seminar (PSS 5100) (Active)
  - **Criterion:** 95% of students will successfully present their thesis research in an oral presentation
  - **Schedule:** This will be completed at the oral defense. We are in the process of revising our graduate curriculum. We expect this to take about one year to complete. Once completed, we will revise our assessment criterion.

- **Course Level Assessment -** Students will present posters and make oral presentation in conference (Active)
  - **Criterion:** 95% of all students will present posters and make oral presentation in conference
  - **Schedule:** We are in the process of revising our graduate curriculum. We expect this to take about one year to complete. Once completed, we will revise our assessment criterion.

- **Course Level Assessment -** Students will participate and present their research in industry field day organized by the department (Active)
  - **Criterion:** 95% of all students will participate and present their research in industry field day
  - **Schedule:** We are in the process of revising our graduate curriculum. We expect this to take about one year to complete. Once completed, we will revise our assessment criterion.