

# Plant and Soil Science BS

## 1-Develop Professional Marketplace Skills

**Goal Description:**

Students completing the BS in Plant and Soil Science will develop the skills necessary to seek initial job placement as they begin their professional careers.

RELATED ITEMS/ELEMENTS -----

RELATED ITEM LEVEL 1

**1-Development of Professional Marketplace Skills**

**Learning Objective Description:**

Students completing the BS in Plant and Soil Science will demonstrate skills necessary to compete in the professional marketplace.

RELATED ITEM LEVEL 2

**1-AGRI 4120- Professional Employment Portfolio**

**Indicator Description:**

All students seeking a degree in Plant and Soil Science are required to complete AGRI 4120 in their senior year. The course addresses essential skills necessary for job placement in the work force- resume preparation, interview skills, technical writing skills and employment opportunities. Faculty will review student assignments compiled in a portfolio and assess student performance using a faculty-developed rubric.

Attached Files

[!\[\]\(4f6bf54ae7e4144a72d78316053e412d\_img.jpg\) AGRI 4120 Portfolio Rubric Matrix](#)

**Criterion Description:**

Faculty evaluations will indicate that at least 70% of the Plant and Soil Science students enrolled in AGRI 4120 will perform at an acceptable level and score a 3 (meets expectations) or higher on a scale of 1-5.

**Findings Description:**

The instructor of the course chose to report results based on an average score, rather than the proportion of students achieving a 3 or greater on the portfolio this year. We will likely return to the proportion measurement in future assessments.

On average, Plant and Soil Science students (n=3) scored 3.55/5.0 on the standardized rubric. The portfolio included a cover letter, resume, reference page, letters of recommendation and an employment application. Generally, Animal Science students performed comparably to previous semesters. Though PLSC students performed well, there is always room for improvement.

Strengths:

- Applications are quite strong with excellent documented work histories
- References listed are aligned with documented work history

Weaknesses:

- Alignment between listed references and letters of recommendation need attention

RELATED ITEM LEVEL 3

**1-AGRI 4120- Professional Employment Portfolio**

**Action Description:**

Students are exceeding expectation, but there is room for improvement. Recommendations include 1) more attention in the class to stressing the importance of “Alignment” and 2) stressing the importance of selecting references in the course packet.

## 2-Knowledge of Key Disciplinary Concepts and Skills

**Goal Description:**

Students will be able to demonstrate competency as they develop knowledge and skills relevant to Plant and Soil Science.

RELATED ITEMS/ELEMENTS -----

RELATED ITEM LEVEL 1

**2-Development of Students’ Knowledge and Skills**

**Learning Objective Description:**

Students will be able to demonstrate competency in key areas of plant and soil science including properties of water.

RELATED ITEM LEVEL 2

2-PLSC 3440- Advanced Plant And Soil Science Assignment

Indicator Description:

All students enrolled in the Plant and Soil Science Program must complete the advanced Plant and Soil Science (PLSC) course, PLSC 3440, in their final year of enrollment. Advanced PLSC courses address key concepts and skills relevant to the field of plant science. Five randomly selected student assignments from PLSC 3440 will be reviewed by faculty members with expertise in the field of PLSC. Faculty members will score the assignments using a scale of 1 - 5 with 3 (meets expectations), 4 (exceeds expectations) and 5 (far exceeds expectations).

Attached Files

[PLSC 3440 Assessment Rubric](#)

Criterion Description:

There is a general consensus among PLSC faculty members that at least 70% of students' project outcomes will meet an expectation of 3.5 or higher.

Findings Description:

|                             | 1    | 2                    | 3                    | 4                                     | 5                                         | Total |
|-----------------------------|------|----------------------|----------------------|---------------------------------------|-------------------------------------------|-------|
| Knowledge of Soil Water     | Poor | Little understanding | Understands Concepts | Knowledgeable                         | Knowledgeable with Depth of Understanding |       |
| Knowledge of Soil Chemistry | Poor | Little understanding | Understands Concepts | Knowledgeable                         | Knowledgeable with Depth of Understanding |       |
| Application of Knowledge    | Poor | Acceptable           | Good                 | Knowledge and application of concepts | Exceptional                               |       |

Total 3.7/5

Soil Science was not offered in Spring 2017. There were five PLSC majors in PLSC 3440 during Fall 2016 - the other students were non-majors. The goal was met.

RELATED ITEM LEVEL 3

2-PLSC 3440- Advanced Plant And Soil Science Assignment

Action Description:

Since the previous evaluation period (Fall 2015), Soil Water Topics were given more time in both lecture and lab for demonstrations, explanations and discussion. Soil Chemistry Topics will be given similar emphasis when taught again in Fall 2017 in an effort to improve this score among majors.

Update to Previous Cycle's Plan for Continuous Improvement

Previous Cycle's Plan For Continuous Improvement (Do Not Modify):

We must be diligent in continuous assessment of the learning objective, "Development of Marketplace Skills" to ensure that our students are prepared to enter the marketplace. We may consider moving the criterion description standard to 70% of Agriculture students enrolled in the course scoring a 4 or higher, rather than a 3 or higher, but we believe it is too early to make this change at this point in time.

The five PLSC students in PLSC 3440 during Fall 2016 met learning outcomes expectations. Increased emphasis on Soil Water Topics helped student understanding and assessment scores in this area.

Update of Progress to the Previous Cycle's PCI:

Assessment instruments indicate that students are prepared and have the necessary tools to begin their initial career search.

Since the previous evaluation period (Fall 2015), Soil Water Topics were given more time in both lecture and lab for demonstrations, explanations and discussion. Soil Chemistry Topics will be given similar emphasis when taught again in Fall 2017 in an effort to improve this score among majors.

Plan for Continuous Improvement

Closing Summary:

1. Develop Professional Marketplace Skills: It is imperative that we continue to be diligent in assessment of the learning objective, "Development of Marketplace Skills" to ensure that our students are prepared to enter their career fields. Though students generally exceeded expectations, we will consider adjusting the overall average expectation and/or the percentage exceeding "met expectations" in future semesters.

2. Development of Students' Knowledge and Skills: Since the previous evaluation period (Fall 2015), increased focus on Soil Water Topics in both lecture and lab for demonstrations, explanations and discussion improved student scores on the assessment. A similar approach will be followed in futures semesters relative to Soil Chemistry Topics to improve this score among majors.