2022-2023

Agricultural Engineering Technology BS

1-Develop Professional Marketplace Skills

Goal Description:

Students earning a BS in Agricultural Engineering Technology will have the skills necessary to seek initial job placement as they begin their professional careers.

Providing Department: Agricultural Engineering Technology BS

RELATED ITEMS/ELEMENTS

RELATED ITEM LEVEL 1

1- Professional Online Identity

Learning Objective Description:

Students will develop a professional online identity.

RELATED ITEM LEVEL 2

1- LinkedIn Profiles

Indicator Description:

All students seeking a degree in Agricultural Engineering Technology are required to complete AGRI 4120 as upperclassmen. During the completion of this course all students must develop a professional online identity using LinkedIn. Profiles are evaluated using a faculty-developed rubric, which is attached to this assessment plan.

Criterion Description:

Our expectation is that 90% of students will achieve at least a 3 out of 5 or greater on all aspects of the rubric.

Findings Description:

From LinkedIn profiles, 93% of students were able to achieve at least a 3 out of 5 or higher on all aspects of the rubric.

RELATED ITEM LEVEL 3

1- LinkedIn Profiles

Action Description:

Dur to the fact that over 90% of students were able to meet criteria, this learning objective is being met by current practices in the course. As a result, we will reevaluate this goal and learning objective moving forward.

RELATED ITEM LEVEL 1

1-Professional Marketplace Skills

Learning Objective Description:

Students will demonstrate job application and interview skills.

Attached Files

AGRI 4120 Portfolio Rubric Matrix

RELATED ITEM LEVEL 2

1-AGRI 4120- Professional Employment Portfolio

Indicator Description:

All students seeking a degree in Agricultural Engineering Technology 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 into a portfolio and assess student performance using a faculty-developed rubric.

Attached Files

AGRI 4120 Portfolio Rubric Matrix AGET.docx

Criterion Description:

We expect that at least 80% of AGET students enrolled in AGRI 4120 would perform at an acceptable level and score a 4 (exceeds expectations) or higher on a scale of 1-5, for each of the components within the three parts of the portfolio. There are 23 students in the data set from 2019-20 and we plan to collect data until there are 100 students in the dataset.

Findings Description:

All AGET students (n=3) scored at an acceptable level (4 or better) on their portfolio in AGRI 4120.

RELATED ITEM LEVEL 3

1- AGRI 4120- Professional Employment Portfolio

Action Description:

While the number of students was low, the number in AGET matched other areas of Agriculture. Because the minimum standards were met, reevaluation of this goal and learning objective will be performed at the end of this cycle.

2-Knowledge of Key Disciplinary Concepts and Skills

Goal Description:

Increase students' knowledge of key concepts and skills in agricultural engineering technology.

Providing Department: Agricultural Engineering Technology BS

RELATED ITEMS/ELEMENTS

RELATED ITEM LEVEL 1

2-Development of Students' Knowledge of Key Disciplinary Concepts and Skills

Learning Objective Description:

During their enrollment in the program, students will be required to complete assignments that demonstrate competency in key STEM areas (physics, math, and technology) associated with Agricultural Engineering Technology (AGET).

RELATED ITEM LEVEL 2

2-AGET 4381- Students' Knowledge of Key Disciplinary Concepts and Skills

Indicator Description:

All students enrolled in the Agricultural Engineering Technology (AGET) program must complete a capstone course (AGET 4381). The course addresses key concepts in AGET and STEM skills (technology, math, and engineering - physics) relevant to AGET. Seven randomly selected student assignments and projects will be reviewed by faculty members with expertise in the field of AGET. 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

AGET 4381 Rubric.docx

Criterion Description:

At least 75% of the students enrolled in the advanced AGET capstone course will perform at an acceptable level with an assessed score of 4 (meets expectations) or higher. Students continually demonstrate a high degree of success on this assessment item. We plan to continue to collect data on this item due to it's high level of importance in the major.

Findings Description:

Ten students participated in the 2022-2023 assessment cycle. The percent of students performing at a level of 4 out of 5 or greater on rubric components is as follows:

Spring 2023 (*N* = 10)

Component	n, % performing at 4 out of 5 or greater
Bill of Materials	9, 90%
Cut list	9, 90%
Cut Quality	7, 70%
Project Square	7, 70%
Fabrication Quality	7, 70%
Individual Employability	8, 80%
Project Draft	5, 50%
Safety/Employability Skills	10, 100%

Fall 2022 (*N* = 10)

Component	n, % performing at 4 out of 5 or greater
Bill of Materials	9, 90%
Cut list	9, 90%
Cut Quality	7, 70%
Project Square	7, 70%
Fabrication Quality	7, 70%
Individual Employability	9, 90%
Project Draft	7, 70%
Safety/Employability Skills	9, 90%

RELATED ITEM LEVEL 3

2-AGET 4381- Students' Knowledge of Key Disciplinary Concepts and Skills

Action Description:

Actions from the previous assessment cycle were not implemented during 2022-2023 due to a change in faculty and lack of communication. We will collect data in future semesters in order to inform the actions we need to take.

-Continue more outside-of-class reading and problem-set assignments, due to limited classroom contact time in fall/ summer semesters.

-Additional writing assignments will be administered during future semesters.

-Due to a large class size in the fall semester, there is limited time for individuated instruction, thus, more small group assigned projects with additional responsibilities in designing, planning, and construction during laboratory instruction. Skill mastery often comes with practice and seeing a project completed emphasizes those skills.

-With limited teaching assistant help this semester, there was limited “open lab” opportunities for students to come in for hands-on practice and to work towards completing the construction and fabrication of the projects, and to complete plans and bill of materials.

-Increase teamwork/communication skills through team projects.

-Add a peer reflection on teamwork/communication grade to the overall class grade.

3- Safety and Employability Skills

Goal Description:

Students will be employable.

Providing Department: Agricultural Engineering Technology BS

RELATED ITEMS/ELEMENTS

RELATED ITEM LEVEL 1

2-Safety and Employability Skills

Learning Objective Description:

Students will demonstrate industry-standard safety skills during the completion of AGET 4381- a capstone course.

RELATED ITEM LEVEL 2

3- AGET 4381- Students' Safety Skills

Indicator Description:

Due to safety rules and regulations often followed by business and industry (OSHA), potential future employees are required to have a working knowledge of key personal protection equipment (PPE). This knowledge of PPE is required to successfully gain employment in the agricultural engineering technology sector and to safely manage employees/students. To facilitate the education of our students, safety rules/PPE/safe working procedures will emphasized in each laboratory activity. Furthermore, a daily safety grade will be recorded for each student regarding the use of PPE and safe working habits.

Criterion Description:

At least 70% of students will achieve a safety grade of at least 3 out of 5. Students continue to demonstrate a high level of success on this assessment item. We plan to continue collecting data on this item due it's critical importance in the major.

Attached Files

Safety - Employability Skills Grading Rubric.docx

Findings Description:

Nineteen students participated in the 2022-2023 assessment cycle. 100% of students met the goal of achieving a 3/5 or greater on all aspects of the rubric.

RELATED ITEM LEVEL 3

3-AGET 4381- Students' Safety Skills

Action Description:

All students meet the requirements for this indicator. It will be reevaluated for relevance for the next academic year.

Update to Previous Cycle's Plan for Continuous Improvement

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

Closing Summary

AGET 4381: Safety and Employability Skills – Due to safety rules and regulations often followed by business and industry (OSHA), potential future employees are required to have a working knowledge of key personal protection equipment (PPE). This knowledge of PPE is required to successfully gain employment in the agricultural engineering technology sector and to safely manage employees/students. To facilitate the

education of our students, safety rules/PPE/safe working procedures will emphasized in each laboratory activity. Furthermore, a daily safety grade will be recorded for each student regarding the use of PPE and safe working habits.

Update of Progress to the Previous Cycle's PCI:

AGET 4381: Safety and Employability Skills – Due to safety rules and regulations often followed by business and industry (OSHA), potential future employees are required to have a working knowledge of key personal protection equipment (PPE). This knowledge of PPE is required to successfully gain employment in the agricultural engineering technology sector and to safely manage employees/students. To facilitate the education of our students, safety rules/PPE/safe working procedures were emphasized in each laboratory activity. Furthermore, a daily safety grade was recorded for each student regarding the use of PPE and safe working habits.

New Plan for Continuous Improvement

Closing Summary:

After reviewing the specific Goals/Objectives/Indicators of this program, the faculty in agriculture have determined that these items do not wholly reflect the needs and goals of our current students. As a result, we will reevaluate all Goals/Objectives/Indicators to better match the needs of our program and the students who are part of it. It is expected that this will require a deep look at what is considered success in this area and will likely cause significant change to the Goals/Objectives/Indicators for the coming academic year.