2021-2022

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.

RELATED ITEM LEVEL 3

1- LinkedIn Profiles

Action Description:

Students will develop a LinkedIn account to begin professional networking during their undergraduate education and make three network connections.

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.

RELATED ITEM LEVEL 3

1- AGRI 4120- Professional Employment Portfolio

Action Description:

We will consider adjusting the overall average expectation and/or the percentage exceeding meet expectations in future semesters. Additionally, students should focus on making personal and industry connections in their desired field of work before graduation. Furthermore, the faculty recommend students use these industry contacts to establish and complete an internship before graduation. Moreover, students will develop a LinkedIn account to begin professional networking during their undergraduate education and make 3 network connections.

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:

Seven students participated in the 2021-2022 assessment cycle. The percent of students performing at a level of 4 out of 5 or greater on rubric components is as follows:

Component	n, % performing at 4 out of 5 or greater
Bill of Materials	15, 78.45%
Cut list	15, 78.45%
Cut Quality	15, 78.45%
Project Square	5, 26%
Fabrication Quality	5, 26%
Team Employability	19, 100%
Project Draft	15, 78.45%
Safety/Employability Skills	19, 100%

RELATED ITEM LEVEL 3

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

Action Description:

To facilitate the education of our students, safety rules/PPE/safe working procedures will be 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.

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 2021-2022 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

Update to Previous Cycle's Plan for Continuous Improvement

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

Closing Summary

AGRI 4120: 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 expectation, we will consider adjusting the overall average expectation and/or the percentage exceeding meet expectations in future semesters. Additionally, students should focus on making personal, industry connections in their desired field of work prior to graduation. Furthermore, faculty recommend student use these industry contacts to establish and complete an internship prior to graduation. Moreover, students will use their Linked In accounts to begin professional networking during their undergraduate education and make 3 network connections.

AGET 4381: Specific areas of concern observed during the fall/summer session and proposed changes for the future include continuing more outside-of-class reading and problem-set assignments, since there is limited classroom contact time. To better gauge personal student performance and overall team performance on a project, students will be required to complete self and team assessments as part of their overall course grade. With limited teaching assistant help, 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. Therefore, as departmental funds allow, we will request that a teaching assistant be available to assist with the open lab in future semesters. Furthermore, as an increase in teamwork and soft communication skills are desired by industry, including business knowledge and skills, the team project in this class will be increase in rigor. Data will be collected in the 2021-2022 academic year to record student success.

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 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.

New Plan for Continuous Improvement

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.