Agriculture MS

Goal 1-Professional Communication Skills

Goal Description:

Graduate students will be able to communicate scientific data in a professional manner.

Providing Department: Agriculture MS

RELATED ITEMS/ELEMENTS

RELATED ITEM LEVEL 1

Goal 1- Objective 1: Oral Communication Skills

Learning Objective Description:

Students will demonstrate professional oral communication and presentation skills that are relevant to scientific data.

RELATED ITEM LEVEL 2

Goal 1- Objective 1. Indicator 1: Three Minute Thesis Presentations in AGRI 6140

Indicator Description:

All students seeking the MS Degree in Agriculture will be required to complete AGRI 6140, a course that helps students develop essential skills for oral and electronic presentation of scientific research. Students will develop 3MT presentations based on either their research or that of their faculty advisor, and deliver these presentations to a team of two faculty members. Presentations will be evaluated using a faculty-developed rubric that scores presentations on a scale of one to five, in several different areas.

Attached Files

3MT Rubric.docx

Criterion Description:

Faculty expect that at least 70% of the students will perform at an acceptable level (3 out 5) or greater on all areas of their 3MT presentations.

Findings Description:

Regarding the 3MT presentations, 100% of students were able to score at an acceptable level (3 out of 5) or greater in all areas of presentation. In general, the weakest area measured was clarity, which would be a focus for the future.

RELATED ITEM LEVEL 3

Goal 1- Objective 1. Indicator 1: Three Minute Thesis Presentations in AGRI 6140

Action Description:

Findings show that all students successfully were able to get at least a 3 out of 4 on the Twelve Minute Presentation. As with the Three Minute Thesis, the instructor intends to expand the presentation to areas outside research. As such it is suggested results be reevaluated at the end of the next evaluation cycle.

RELATED ITEM LEVEL 2

Goal 1- Objective 1. Indicator 2: Twelve Minute Presentations in AGRI 6140 Indicator Description:

All students seeking the MS Degree in Agriculture will be required to complete AGRI 6140, a course that helps students develop essential skills for oral and electronic presentation of scientific research. Students will develop 12-minute presentations based on either their research or that of their faculty advisor, and deliver these presentations to a team of two faculty members. Presentations will be evaluated using a faculty-developed rubric that scores presentations on a scale of one to four, in several different areas.

Attached Files

12 min Rubric.docx

Criterion Description:

Faculty expect that at least 80% of the students will perform at an acceptable level (3 or 4 out of 4) on all areas of their twelve minute presentations.

Findings Description:

In the 12 min presentation, 100% of students were able to get a 3 or better in all areas. The area of completeness was the weakest area and a focal point for the future.

RELATED ITEM LEVEL 3

Goal 1- Objective 1. Indicator 2: Twelve Minute Presentations in AGRI 6140

Action Description:

Faculty expected that at least 80% of the students will perform at an acceptable level (3 or 4 out of 4) on all areas of their twelve minute presentations. However ,a redesign of this assignment may alter these results. As such, faculty expect that at least 80% of the students will perform at above an acceptable level (3 out of 4) or greater on all areas of their 3MT presentations in the future with the redesign.

Goal 2- Advanced Agricultural Science Knowledge and Skills

Goal Description:

Graduate students will demonstrate knowledge and skills relevant to advanced agricultural science.

Providing Department: Agriculture MS

RELATED ITEMS/ELEMENTS

RELATED ITEM LEVEL 1

Goal 2- Objective 1: Global Perspective of Agriculture

Learning Objective Description:

Students, through the Master of Science Curriculum, will demonstrate a global perspective of agriculture while also gaining scientific and technical knowledge with research and analytical skills in agriculture and related sciences.

RELATED ITEM LEVEL 2

Goal 2- Objective 1. Indicator 1: Comprehensive Exam Common Question

Indicator Description:

Completion of the master of science curriculum requires that students successfully complete an oral (thesis) or written (non-thesis) exam. Exams are evaluated by a committee of faculty members with expertise in the student's subject area. Going forward, one consistent question will be used during all examinations, and faculty members will be asked to evaluate student responses to this question. A faculty-developed scoring mechanism will rate depth of knowledge, theoretical concepts, soundness of argument, critical thinking, and originality/insight on a scale of 0 (fail) to 3 (exceptional).

Criterion Description:

Faculty expect 100% of graduate students will receive at least a 2 out 3 on all areas of the rubric, indicating mastery of technical knowledge in their specific field of agriculture.

Attached Files

Rubric for COMP Question.xlsx

Findings Description:

This year, 87.5% of graduate students were able to receive at least a 2 out 3 on all areas of the rubric. Again the areas of "Concepts and Theory" and "Originality", have some variation indicating these areas need to be closely watched in the future.

RELATED ITEM LEVEL 3

Goal 2- Objective 1. Indicator 1: Comprehensive Exam Common Question

Action Description:

Findings show that while students performed well, not all students have reached the anticipated expectations. As a result, it is suggested that instruction be refocused in the deficient areas for the next academic year and this objective be reevaluated once we have 25 observations.

RELATED ITEM LEVEL 1

Goal 2- Objective 2: Analytical Skills

Learning Objective Description:

Students completing the Master of Science Curriculum will exhibit research and analytical skills related to agricultural science.

RELATED ITEM LEVEL 2

Goal 2: Objective 2. Indicator 1: Research methods knowledge

Indicator Description:

Completion of the master of science curriculum requires that students complete AGRI 6350: Research Methods. This course is designed to incorporate statistical design with applied research methods in order to address the design of agricultural experiments. During the course, students read research papers, evaluating the adequacy of the statistical design related to the proposed hypothesis for each of these papers. Ability to identify hypothesis statements, statistical design, experimental design, and the alignment of these items will be evaluated on the final paper assignment. Assignments will be evaluated by a rubric that scores students from 1 (poor) to 3 (excellent).

Criterion Description:

Faculty expect 100% of graduate students will receive at least a 2 out 3 on all areas of the rubric, indicating mastery of statistical and experimental design knowledge.

Findings Description:

Sixteen students participated in the assessment. Out of 16 students, 87.5% achieved at a score of 2 or greater on the article review.

RELATED ITEM LEVEL 3

Goal 2: Objective 2, Indicator 1: Research methods knowledge

Action Description:

Findings show that while students performed well in many areas, there are still clearly deficiencies in their knowledge. As a result, it is suggested that the instructors of our statistics and Research methods courses evaluate the instruction so the deficient areas con be better covered for the coming academic year.

Update to Previous Cycle's Plan for Continuous Improvement

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

Closing Summary

Goal 1: We plan to continue to implement assessments of the three-minute thesis, twelve-minute presentation, and the 300-word abstracts. However, the rubrics for both the twelve-minute presentation and three-minute thesis need to be updated to reflect their current format to validate the results seen. These indicators are vital because they focus on different communication skill sets. Abstracts represent formal communication skills of the basic sciences whereas the three-minute thesis reflects an ability to explain science to a general interest audience and to create interest in your research.

Goal 2: We plan to continue data collection on the comprehensive exam question and have the goal of collecting data on all graduating graduate students in the School. Students did not reach the desired levels, so investigation in where a deficiency may exist is deemed worthwhile. While investigation may be useful, this is still a small portion of students and is too small to warrant any majors changes at this point. The common question was administered in written format to both thesis and non-thesis students, and we will continue this format. Student answers were evaluated by one faculty member in order to be consistent. The evaluation of the research methods paper will be continued as we resume normal campus operations.

Update of Progress to the Previous Cycle's PCI:

While most of the goals for the previous cycle's PCI were met, there is still room for improvement within these goals. We intend to increase the performance of those students for Goal 1 as they previous goals were readily met, and maintain the goals for Goal 2 as they were barley met with a small number of students.

New Plan for Continuous Improvement

Closing Summary:

Goal 1: We plan to continue to implement assessments of the three-minute thesis, twelve-minute presentation, and the 300-word abstracts. However, the rubrics for both the twelve-minute presentation and three-minute thesis need to be updated to reflect their current format to validate the results seen. These indicators are vital because they focus on different communication skill sets. Abstracts represent formal communication skills of the basic sciences whereas the three-minute thesis reflects an ability to explain science to a general interest audience and to create interest in your research.

Goal 2: We plan to continue data collection on the comprehensive exam question and have the goal of collecting data on all graduating graduate students in the School. Students did not reach the desired levels, so investigation in where a deficiency may exist is deemed worthwhile. While investigation may be useful, this is still a small portion of students and is too small to warrant any majors changes at this point. The common question was administered in written format to both thesis and non-thesis students, and we will continue this format. Student answers were evaluated by one faculty member in order to be consistent. The evaluation of the research methods paper will be continued as we resume normal campus operations.