

Agriculture MS

1-Professional Development

Goal Description:

Students will learn the skills necessary to compete in the professional marketplace.

RELATED ITEMS/ELEMENTS -----

RELATED ITEM LEVEL 1

1-Development of Professional Marketplace Skills

Learning Objective Description:

Students pursuing a Master of Science in Agriculture will demonstrate competency in communication skills and professional presentation skills of scientific knowledge.

RELATED ITEM LEVEL 2

1-Professional Development

Indicator Description:

All students seeking a MS Degree will be required to complete AGRI 6140 which addresses essential and advanced skills necessary to compete in the professional marketplace. The course helps students develop essential skills for oral and electronic presentation of scientific research. Faculty will review student assignments and assess student performance on selected assignments using a faculty-developed scoring system. Students will be expected to review scientific documents and perform written and oral reviews of literature. Professional presentations will be developed and presented to faculty.

Criterion Description:

Faculty expect that at least 80% of the students enrolled in AGRI 6140 will perform at an acceptable level and score a 80% (adequate evidence of knowledge) or higher on a scale of 0-100. Clarity of scientific information will be reviewed closely, which was noted as a weakness in past years.

Findings Description:

Students (n=12) were expected to read a journal article in their area of expertise. Students produced a brief technical evaluation of the article in summary form with 75% of student submissions scoring at or above an 80%. The remaining 25% of submissions ranged from 75-78%.

Students were also expected to make a professional presentation based on original or secondary research. Again, 75% of students met or exceeded the 80% baseline with the remaining 25% scoring 75-78%. There was apparent overlap of below standard performance when two of the three students fell below baseline. This possibly points to the students' level of investment in the course in general.

There was great comparability between scores on the two assignments (i.e., strong students performed better, weaker students consistently performed at or below standard, an appreciable amount of this due to personal investment). Unfortunately, with only 75% of students exceeding our 80% baseline score, we failed to meet our standard of 80% of all students meeting this minimum level.

RELATED ITEM LEVEL 3

1-Professional Development

Action Description:

It was noticeable that those students who failed to perform at expected levels tended to be more absent from class, failed to submit assignments on time, etc. pointing to lack of personal investment in the course relative to their peers. Therefore, emphasis will be placed on attendance and more explicit instructions about submission deadlines for assignments. Hopefully, we can push the number of students back above the 80% meeting or exceeding baseline expectations.

2-Develop Knowledge And Skills

Goal Description:

Students will develop knowledge and skills relevant to advanced agricultural science.

RELATED ITEMS/ELEMENTS -----

RELATED ITEM LEVEL 1

2-Development of Students' Knowledge and Skills

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

2-Written and Oral Comprehensive Exams

Indicator Description:

All MS students pursuing the thesis route are required to successfully complete an oral examination, and all MS students pursuing the non-thesis route are required to successfully complete a written comprehensive exam. A committee of faculty members with expertise in the subject area will evaluate students' oral and written performances using a faculty-developed scoring mechanism rating depth of knowledge base, theoretical concepts, and soundness of argument, critical thinking, and originality/insight. Scoring results in Fail, Low Pass, Pass, and High Pass.

Criterion Description:

Faculty expect 100% of the graduate students will pass their exam on their first attempt of their oral or written comprehensive examinations. Technical knowledge in the various fields of agriculture with a scientific comprehension with masterly level answers will be expected.

Findings Description:

Six students successfully completed and defended their thesis in partial fulfillment of the MS in Agriculture. Scores on the oral defense were:

- High pass- 2
- Pass- 3
- Low pass- 1

Five students pursuing the non-thesis route successfully completed the written examination in partial fulfillment of the MS in Agriculture.

- High pass- 0
- Pass- 4
- Low pass- 1

RELATED ITEM LEVEL 3

2-Written and Oral Comprehensive Exams

Action Description:

Those students completing the thesis met or exceeded expectations established by their respective faculty committees. Additionally, each student's work was presented at a regional or national professional conference. These are outcomes we expect to continue.

For students pursuing the MS non-thesis option, they will be expected to set up a formal meeting with their graduate committee at least one time per semester to encourage professional interaction and to gauge progress towards graduation. This should increase engagement between faculty and the non-thesis student so as to better prepare them for the comprehensive written examination.

Update to Previous Cycle's Plan for Continuous Improvement

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

Students (n=12) were expected to read a journal article in their area of expertise. Students produced a brief technical evaluation of the article in summary form with 75% of student submissions at or above an 80%. The remaining 25% of submissions ranged from 75-78%.

Students were also expected to make a professional presentation based on original or secondary research. Again, 75% of students met or exceeded the 80% baseline with the remaining 25% scoring 75-78%. There was apparent overlap of below standard performance when two of the three students fell below baseline possibly pointing to student level of investment in the course in general.

There was great comparability between scores on the two assignments (i.e., strong students performed better, weaker students consistently performed at or below standard, an appreciable amount of this was due to personal investment). Unfortunately, with only 75% of students exceeding our 80% baseline score, we failed to meet our 80% of all students meeting this minimum level.

Six students successfully completed and defended their thesis in partial fulfillment of the MS in Agriculture. Scores on the oral defense were:

- High pass- 2
- Pass- 3
- Low pass- 1

Five students pursuing the non-thesis route successfully completed the written examination in partial fulfillment of the MS in Agriculture.

- High pass- 0
- Pass- 4
- Low pass- 1

Students demonstrated success in assimilating facts and articulating their responses to scientific and theoretical questions at a level that demonstrates mastery of agriculture and which met the expectations of the committee. However, a goal is to move to all students achieving at least the pass rating on their comprehensive oral or written comprehensive exam.

Update of Progress to the Previous Cycle's PCI:

Students demonstrated success in assimilating facts and articulating their responses to scientific and theoretical questions at a level that demonstrates mastery of agriculture and which met the expectations of the committee. However, a goal is to move to all students achieving at least the pass rating on their comprehensive oral or written comprehensive exam.

Plan for Continuous Improvement

Closing Summary:

1. Professional Development: Generally, students who failed to perform at expected levels tended to be more absent from class, failed to submit assignments on time, etc. pointing to lack of personal investment in the course relative to their peers. Emphasis on attendance and increasingly explicit instructions about submission deadlines for assignments will be made in future semesters so we can once again meet/exceed our minimum expectation of students.
2. Written and Oral Comprehensive Exams: Our expectation is that all students completing the thesis will achieve a pass or high pass rating on their oral examination. Additionally, we will expect students to present their work at a regional or national professional conference. To allow/encourage more students to pursue the MS thesis route, we will seek out internal and external funding sources to underwrite graduate stipends, research expenses and travel. For students pursuing the MS non-thesis option, they will be expected to set up a formal meeting with their graduate committee at least one time per semester to encourage professional interaction and to gauge progress towards graduation. This should increase engagement between faculty and the non-thesis student so as to better prepare them for the comprehensive written examination.