Annual Academic Assessment Report

(MS/Agricultural Economics and Agribusiness)

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Results of analysis of assessment of Student Learning Outcome

Non-Thesis MS

Problem-solving and communication rubrics were utilized for three non-thesis MS students in AGEC 5011 seminar. Students were evaluated by the seminar instructor (Anderson) based on written assignments, presentation materials, class participation, and personal interaction throughout the semester.

Acceptable and **Ideal Targets**

- Students will be able to successfully frame problems/issues using appropriate economics theory and tools and communicate clearly, demonstrating acceptable facility with technical concepts.
- Acceptable: Fifty percent (50%) of students will be able to successfully define a problem and address it using appropriate theories to develop hypotheses.
- Ideal: All students will be able to successfully define a problem and address it using appropriate theories to develop hypotheses and will be able to evaluate conclusions.

Key Personnel

- Seminar Instructor (J. Anderson)

Summary of Findings.

- Students in the Fall 2023 Seminar class were given assignments to provide a basis for assessment. Only three non-thesis students enrolled in Seminar in Fall 2023, one of those being a dual AGEC/LLM student. Students in the Fall 2023 Seminar class were asked to complete two writing assignments interacting with peer-reviewed journal articles and two professional presentations. The second of these presentations included an overview of the student's home country economy and required collection, summary, and basic data analysis to evaluate the economy's strengths and weaknesses. This is the primary basis for assessing the student's analytical abilities, which is summarized in this section.
- The non-thesis students who were assessed generally performed very well in collecting and working with data and summarizing basic analysis. Students were quite comfortable evaluating the implications of the analysis. All three students demonstrated strong communication skills.

Recommendations

- The use of the Fall Seminar class to evaluate non-thesis students through multiple assignments has worked well for the three semesters that this system has been in place. The number of non-thesis students in the program remains minimal and will largely consist of sponsored students. The home economy analysis assignment provided a sufficient basis for student assessment; however, students from countries with limited data may need to be given an alternative assignment – perhaps a regional rather than country-level evaluation, for example.
- Non-Thesis Student Problem-Solving Summary results

Non-Thesis Students Problem-Solving Summary results

	Excellent (4)	Above Average (3)	Average (2)	Needs Improvement (1)	Average student score on a 1-4 scale
Define Problem	4	6	0	0	3.40
Identify Strategies	4	6	0	0	3.40
Propose Solutions / Hypotheses	4	6	0	0	3.40
Evaluate Potential Solutions	8	3	0	0	3.72
Strategy to Implement Solution	8	3	0	0	3.72
Evaluate (Potential) Outcomes	4	6	0	0	3.40

- All three non-thesis students performed above average or higher.
- Students demonstrated the capability of using data-driven reasoning to define problems and identify strategies.

STUDENT LEARNING OUTCOME 2: COMMUNICATION

Graduates will enhance their ability to prepare, organize, and deliver information to effectively communicate (orally, written, and electronically) with scientific, professional, and non-technicalaudiences.

Summary of Findings

- The Communication rubric was utilized for the three non-thesis students in AGEC 5011 Seminar. Students were evaluated by the instructor (Anderson) based on a personal introduction presentation, a home economy presentation, in-class participation, and course writing assignments.

Non-Thesis Student Communication Summary results

	Excellent (4)	Above Average (3)	Average (2)	Needs Improvement (1)	Average student score on a 1-4 scale
Organization	8	3	0	0	3.72
Language	4	3	2	0	3.66
Delivery	4	3	2	0	3.66
Supporting Material	4	6	0	0	3.40
Central Message	4	6	0	0	3.40

- Non-thesis students scored well on communication. One of the non-thesis students is an ESL speaker but was able to communicate clearly in oral presentations. Students were all average or better in organizing, conveying, and supporting an oral or written message.

Thesis MS

The Oral Communication Rubric was utilized for nine students presenting their final thesis results (Defense). The students were evaluated by the professors constituting their committee (a total of 33 evaluations were submitted by faculty; the number of evaluators ranged from two– to five: committees consist of a minimum of three members, but not all faculty submitted their assessment). The results are below.

Thesis Oral Presentation Summary results

- The majority of thesis students are performing "above average" or higher.

	Excellent (4)	Above Average (3)	Average (2)	Needs Improvement (1)	Average student score on a 1-4 scale
Organization	23	9	1	0	3.67
Language	15	17	1	0	3.42
Delivery	24	7	1	0	3.61
Supporting Material	15	16	2	0	3.39
Central Message	23	8	1	0	3.58

The Problem Solving Rubric was utilized for nine students presenting their final thesis results (Defense). The students were evaluated by the professors constituting their committee (a total of 33 evaluations were submitted by faculty; the number of evaluators ranged from two – to five: committees consist of a minimum of three members, but not all faculty submitted their assessment). The results are below.

Thesis Students Problem-Solving Summary Results

	Excellent (4)	Above Average (3)	Average (2)	Needs Improvement (1)	Average student score on a 1-4 scale
Define Problem	19	14	0	0	3.58
Identify Strategies	17	15	1	0	3.49
Propose Solutions / Hypotheses	20	11	2	0	3.55
Evaluate Potential Solutions	17	14	2	0	3.45
Strategy to Implement Solution	16	14	3	0	3.39
Evaluate (Potential) Outcomes	17	14	2	0	3.45

- The majority of thesis students are performing “above average” or higher.

  The written communication rubric was utilized for nine students who presented their final thesis results (Defense). The students were evaluated by the professors constituting their committee (a total of 33 evaluations were submitted by faculty; the number of evaluators ranged from two– to five: committees consist of a minimum of three members, but not all faculty submitted their assessment). The results are below.

Thesis Written Communication Summary Results.

	Excellent (4)	Above Average (3)	Average (2)	Needs Improvement (1)	Average student score on a 1-4 scale
Contest and Purpose	18	13	2	0	3.49
Content Development	18	13	3	0	3.55
Genre & Disciplinary Conventions	13	19	1	0	3.36
Sources & Evidence	18	12	3	0	3.45
Control of Syntax	14	16	2	0	3.27

- The majority of thesis students are performing “above average” or higher.

Combined Thesis and Non-thesis Evaluation

Core content exam

- All students (Thesis and non-thesis) are required to take Microeconomics Principles (AGEC 5103- Huang) and Quantitative Methods (AGEC 5403-Nalley). Students will be examined on key concepts at the beginning of each class and again at the endof each class.
- This will be directly evaluated by the course instructor.
- The change in percentage correct will be reported.

Acceptable and **Ideal Targets**

- Acceptable: Students will show an average increase of 20% after taking the course, i.e., on average, students will correctly answer 35% of the questions at the beginning of the course and55% or better by the end of the course.
- Ideal: Students will show an average increase of 40% after taking the course, i.e., on average, students will correctly answer 35% of the questions at the beginning of the course and 75% orbetter by the end of the course.

Summary of Findings

Microeconomics (AGEC5103)				Quantitative Economics (AGEC 5403)			
Question #	Pre	Post	Difference	Question #	Pre	Post	Difference
1	71%	81%	10%	1	34%	86%	52%
2	24%	69%	45%	2	43%	82%	39%
3	33%	76%	43%	3	30%	91%	61%
4	38%	90%	52%	4	65%	91%	26%
5	67%	90%	24%	5	17%	78%	61%
Average	47%	81%	35%	Average	38%	86%	48%

- For the fall 2023 term, all students in AGEC 5103 Microeconomics principles were administered the basic content quiz at the beginning of the semester and again at the end of the semester. The average result on the quiz was 47% correct at the beginning of the semester and 81% at the end of the semester. The average score improved by 35 percentage points.
- For the fall 2023 term, all students in AGEC 5403 Quant Methods for AGEC were administered the basic content quiz at the beginning of the semester and again at the end of the semester. The average result on the quiz was 38% correct at the beginning of the semester and 86% at the end of the semester. The average score improved by 48 percentage points.

Mastery of course subject matter

- Students will be assessed as to how well they comprehend material in their course of study.
- Students will be indirectly assessed by the course instructor.
- Students will be given a series of assignments, exams, and/or projects to demonstrate theirknowledge of key Agricultural Economic Concepts and demonstrate their ability to use the appropriate concepts in a given situation.
- Students will be assessed grades based on their demonstrated mastery of core concepts andappropriate use.

Acceptable and **Ideal Targets**

- Acceptable: At least 50% of the students should complete their course of study with a "B+"average (3.33 GPA on a 4.0 scale)
- Ideal: At least 75% of the students should complete their course of study with a "B+" average (3.33 GPA on a 4.0 scale)

Summary of Findings.

- As seen in the table below, students have averaged over 3.33.

Type of MS Student	Number of Students	Average GPA
Total	28	(92% > 3.33; 78%>3.75)
Thesis	24	(94% > 3.33; 83%>3.75)
Non-Thesis	4	(60% > 3.33; 20%>3.75)

- **Any changes to degree/certificate planned or made on the basis of the assessment and analysis**
  Yes, we are converting the one-hour graduate seminar into a one-hour "Math Boot Camp" starting in the Fall of 2024 to better prepare our graduate students for the rigor of the mathematics needed in our

graduate program. We feel that this will better prepare students for their coursework and raise their overall GPAs because of it.

- **Any changes to the assessment process made or planned.**

  None