

M.S. & Ph.D. Programs Department of Agricultural Economics

Student Learning Outcomes

Graduates of the M.S. and Ph.D. programs in Agricultural Economics will:

Knowledge

1. Demonstrate an understanding of how to use microeconomic concepts to set up and analyze economic problems and implications.
2. Demonstrate an understanding of how to use macroeconomic concepts to set up and analyze economic problems and implications.
3. Understand features of agriculture (e.g., inherent risk, institutions, unique government policies, and cultural importance of food) that make it unique for applications of economic principles.

Skills

1. Identify, summarize, interpret, and critique relevant scholarly literature.
2. Demonstrate the ability to identify important research problems and formulate well-defined research objectives (e.g., testable hypotheses).
3. Identify and use appropriate quantitative methods to accomplish research objectives.
4. Effectively use written and verbal communication skills to present economic concepts and analyses.

Attitudes and Professional Conduct

1. Practice highest levels of professional conduct (e.g., in professional activities take responsibility, be accountable, show integrity, have strong ethics, and respect diversity).

Assessment Method(s)

The direct measure used for the learning outcomes is an assessment of every M.S. and Ph.D. student by their supervisory committee on their Thesis or Dissertation and its oral defense. The students are evaluated on Knowledge, Skills, and Attitudes and Professional Conduct (as described above) and scored using a six-level rubric: 1 = poor, 2 = average, 3 = good, 4 = very good, 5 = excellent, 6 = N/A. Items on the SLO evaluation instrument include:

To differentiate M.S. and Ph.D. students, additional direct measures for the Ph.D. students are used to test their breadth and depth in Knowledge. These measures include passing qualifying examinations in both macroeconomics and microeconomic theory. The Ph.D. students must also pass a preliminary examination in agricultural economics. These three examinations are important measures of whether the Ph.D. students are meeting the requirements for the learning outcomes listed above.

The SLO evaluation instruments for the M.S. and Ph.D. programs are included as Appendix A and B, respectively.

Summary of Data: M.S. Program

M.S. (includes data on 87 of 91 students graduating from 2011 to 2020)^{1,2}

Outcome	N	N/A	Mean	St. Dev.	Min.	Max.
<u>Knowledge</u>						
Microeconomics	87	0	3.92	0.80	2	5
Macroeconomics	55	32	3.68	0.91	1.5	5
Features of Agriculture	87	0	4.20	0.70	2	5
<u>Research Skills</u>						
Identify literature	87	0	3.82	0.86	2	5
Formulate objectives	87	0	3.96	0.79	2	5
Identify quantitative techniques	87	0	4.02	0.80	2	5
Written & verbal communication	87	0	3.89	0.81	2	5
Professional conduct	87	0	4.59	0.58	2.5	5

¹Committee assessment based on thesis. Scale: 1=poor to 5=excellent.

²Data is through Spring 2020 semester.

Reflection

The data indicate that our expectations for student learning are being met. On average, five of the eight SLOs were met at a level that was evaluated between “good” (3) and “very good” (4), with the remaining three outcomes evaluated at a level that exceeded “very good.” It is not surprising that there were 32 N/A for Macroeconomics and that it was the lowest rated SLO. Most M.S. theses are applied microeconomic studies in which macroeconomic factors have little or no relevance. Additionally, a course in macroeconomics is optional in our M.S. program.

Summary of Data: Ph.D. Program**PhD (includes data 51 on 52 students graduating from 2011 to 2020)^{1,2}**

Outcome	N	N/A	Mean	St. Dev.	Min.	Max.
<u>Knowledge</u>						
Microeconomics	51	0	4.12	0.66	2	5
Macroeconomics	31	20	4.19	0.93	2	5

Features of Agriculture	51	0	4.18	0.76	2	5
<u>Research Skills</u>						
Identify literature	51	0	4.15	0.76	1	5
Formulate objectives	51	0	4.27	0.74	2	5
Identify quantitative techniques	51	0	4.28	0.61	3	5
Written & verbal communication	51	0	4.03	0.82	2	5
Professional conduct	51	0	4.67	0.53	2	5

¹Committee assessment based on thesis. Scale: 1=poor to 5=excellent.

²Data is through Spring 2020 semester.

Reflection

The data indicate that our expectations for student learning are being met. All SLOs are evaluated as being met, on average, at a level that exceeds “very good” (4). Macroeconomics is not an emphasis in our program, and for many dissertations, macroeconomic factors are not relevant – hence the N/A evaluation for 20 of the 51 dissertations. However, for dissertations for which macroeconomics is relevant, the average evaluation of 4.19 is very strong.