

Assessment Data 2015
Fermanian School of Business (FSB)
General Education: Economics

Learning Outcome:

1d. Critical Thinking: Students will be able to examine, critique, and synthesize information in order to arrive at reasoned conclusions.

Outcome Measure:

The AACU Critical Thinking Value Rubric (an existing rubric) will be used to evaluate an essay placed on the final exam in each of the general education economics courses. Essays will differ for each course according to its content, but the same essay will be used across all sections of the same general education economics course.

- o ECO 100 Principles of Economics
- o ECO 101 Principles of Macroeconomics
- o ECO 102 Principles of Microeconomics

Components of this outcome as measured by the AACU Critical Thinking Value Rubric which has five items (rows), and adapted to general education economics are:

- o Students will be able to clearly state the economic issue or problem
- o Students will be able to use proper information or evidence in considering the economic issue or problem
- o Students will be able to understand the influence of the context and assumptions in analyzing the information used
- o Students will be able to use information to formulate a position and clearly state it
- o Students will be able to identify consequences and draw logical conclusions by using evidence appropriately

Criteria for Success (if applicable):

Since this is the FSB's first attempt at assessing general education economics courses using the AACU Critical Thinking Value Rubric, the data will be scored using two possible criteria for success. In the future, discussion with the FSB Assessment Committee and instructors of general education economics courses will determine the most appropriate criteria for success.

Criteria for Success 1:

A random sample of students will score an average of 2.5 or higher for each component of the AACU Critical Thinking Value Rubric.

Criteria for Success 2:

70% of a random sample of students will score 3.0 or higher on each component of the AACU Critical Thinking Value Rubric.

Longitudinal Data:

This is the first time FSB has collected data on GE learning outcomes, and data was collected for Spring 2015.

During Spring 2015 three sections of ECO 101 and two sections of ECO 102 were offered and there were no sections of ECO 100. Three out of five sections with full-time instructors for Spring 2015 were included in this initial assessment: one section of ECO 101 and two (all) sections of ECO 102. Sections with adjunct instructors were not able to be included.

Table 1: Data Collected and Sample Size

GE Economics: Spring 2015				
Class	Semester	Enrollment	Sample size	Sample percent
ECO 102	Spring 2015	69	17	24.64%
ECO 101	Spring 2015	34	9	26.47%

Table 2: Average Scores

AACU Critical Thinking Value Rubric (adapted to economics GE)						
Class	Students will be able to clearly state the economic issue or problem	Students will be able to use proper information or evidence in considering the economic issue or problem	Students will be able to understand the influence of the context and assumptions in analyzing the information used	Students will be able to use information to formulate a position and clearly state it	Students will be able to identify consequences and draw logical conclusions by using evidence appropriately	average score
ECO 102	3.83	3.71	3.71	3.08	2.89	3.44
ECO 101	2.22	2.11	2.11	2.89	2.56	2.38

Table 3: Percent with Scores above 3.0

AACU Critical Thinking Value Rubric (adapted to economics GE)						
Class	Students will be able to clearly state the economic issue or problem	Students will be able to use proper information or evidence in considering the economic issue or problem	Students will be able to understand the influence of the context and assumptions in analyzing the information used	Students will be able to use information to formulate a position and clearly state it	Students will be able to identify consequences and draw logical conclusions by using evidence appropriately	average score
ECO 102	94.12%	100.00%	94.12%	82.35%	64.71%	94.12%
ECO 101	33.33%	44.44%	33.33%	55.56%	44.44%	33.33%

Conclusions Drawn from Data:

GE economics students consist of both business majors and non-majors in macroeconomics, microeconomics, and a combination course. A key desired outcome for all of these students is that they become aware of and be able to critically examine the significant economic issues currently facing society. Using critical thinking to understand the problems of importance, recognizing the information that is relevant, using information properly in context, analyzing the information appropriately, and drawing proper conclusions from the evidence are all important factors in this process.

The data collected thus far is inconsistent among the two different courses assessed. The microeconomics students scored higher than the macroeconomics students. There are some possible reasons for this:

1. The microeconomics essay was added to the final exam with the AACU Critical Thinking rubric in mind, while the macroeconomics essay was already included in the final exam. Thus, the applicability of the rubric was potentially inconsistent across the two courses based on the construction of the essay.
2. Scoring was completed by instructors without consultation or inter-rater reliability. Instructors were left to interpret for themselves (without discussion) how to apply the rubric to the particular essay on their final exam. Without benefit of planning and discussion ahead of time about how to use the rubric with the essays, a wide variety of interpretations was the likely result.
3. The general education economics courses are 100 level (freshmen level) courses. Thus, applying a rather sophisticated rubric can be done more loosely, allowing some leniency based on students being at the freshman level, or more strictly. Without discussion in advance, it is possible that the instructors who scored the essays using this rubric took drastically different approaches to its use.

However, despite these potential differences, the data for each course will be interpreted in turn, keeping in mind that more longitudinal data and some revisions to the process and discussion about the use of the rubric will be necessary to gain greater reliability in future findings.

General education microeconomics students demonstrate the aspects of critical thinking outlined in the five components at a satisfactory level, scoring greater than 2.5 on all five components. Students are strongest at stating the problem, understanding what information is relevant, and properly contextualizing the information. They are still satisfactory, but weaker in analyzing information and drawing conclusions. Initially this is to be expected due to the fact that the general education economics courses are taught at the freshmen (100) academic level, and the latter two assessment components involve higher order critical thinking skills. However, it is believed that in the future it will be possible to work on all five components and alter instruction and pedagogy so as to strengthen the last two.

For macroeconomics students the scores are unsatisfactory (scores below 2.5) in the first three components and satisfactory (2.5 or higher) in the last two components. They are weaker at stating the problem, utilizing appropriate information, and contextualizing it. They are stronger at analyzing information and drawing conclusions. This is the opposite of the results from the microeconomics students. The results of the data suggest that further examination is needed to understand the discrepancies, which will be included in the recommendations for change (below).

Changes to be Made Based on Data:

Due to the wide differences in course results (discussed above), the following issues and processes need to be reviewed for potential changes:

1. Review the components of the AACU Critical Thinking Value Rubric to consider whether the level of academic expectations in the rubric is aligned with freshmen level general education economics courses.
2. Discuss the criteria for success that is appropriate for the economics general education students, considering the components of the rubric.
3. Review the final exam essay questions in each GE economics course in order to better align them to the components of the AACU Critical Thinking Value Rubric.
4. Review the scoring process with the FSB Assessment Committee and determine an annual process that will provide better internal and external validity and inter-rater reliability.
5. Consider changes in instruction and pedagogy that will strengthen students' performance on the five components of critical thinking.

Rubric Used:

AACU Critical Thinking Value Rubric (existing, see attached file)