

## Annual Assessment Report 2015

*The Economics and Business (EB) department mission statement, Program Learning Outcomes (PLO's), curricular map and multi-year action plan are posted on the EB department website.*

**Department:** Economics and Business

**Date:** September 15, 2015

**Department Chair:** Rick Ifland

### I. Program Learning Outcome (PLO) Assessment

<b>Program Learning Outcome</b>	Students employ and analyze complex economics and business processes and policies.
<b>Who is in Charge</b>	Edd Noell and Enrico Manlapig
<b><u>Direct Assessment Methods</u></b>	Comprehensive exam covering baseline and advanced microeconomic (Exam A) and macroeconomic concepts (Exam B). Previously, Paul Morgan performed a detailed item analysis regarding the reliability of the exam and specific exam questions. After analysis, 11 questions were altered to better reflect reliability and accuracy.
<b><u>Indirect Assessment Methods</u></b>	Embedded assessment utilizing exam questions and assignments in EB 11 Principles of Macroeconomics (Noell) and EB 12 Principles of Microeconomics (Manlapig, Asher)
<b>Major Findings</b>	<p>The student average for both Exams A and B for the years 2012 and 2013 hit a plateau at 67. Disaggregation of results by professor indicates the need for Noell to revise 5 test items, Morgan to revise 3 test items, and Noell and Morgan jointly to revise 3 test items. All 11 items were revised for the 2014 examination. Eleven test items were revised for the 2014 version of the test. Items that were used on both the microeconomics and macroeconomics portions of the test were numbers 15, 48/50 (micro/macro), and 63/64. All three of these questions discriminated at 20% and their difficulty levels were 0.76, 0.64, and 0.94 and so they should all be judged as effective items.</p> <p>Again in 2014, 34 students took the macroeconomics version of the test. Three items, numbers 22, 31, and 38 were revised. Number 22 had a difficulty level of 32 percent and discriminated at 0.11 and so could still be improved. Number 31 had a reasonable difficulty level at 0.58 but did not discriminate and so it should be reviewed again. Test item number 38 had a difficulty of 0.62 and discriminated at 0.44 and so it should be included on future tests.</p> <p>Overall scores on the microeconomics version of the field exam yielded a mean of 64 percent, a median of 66.6 percent with a test reliability of 38.4 percent in a small sample of 16 students. The macroeconomic version of the test</p>

	also had a mean of 64 percent, a median of 63.3 with a higher reliability of 64.2 percent in a larger section of 34 students. Mistaken filing and disposal of item analysis data disallowed an analysis of the microeconomics version of the test for 13 students.
<b>Closing the Loop Activities</b>	Reviewed and then either improved or replaced 11 items on 2014 economics field exam to be administered in Senior Seminar in Fall 2013 and Spring 2014 (to improve exam reliability) and pursue measures to raise student performance level in principles of economics courses. Mean scores are slightly higher.
<b>Discussion</b>	Noell and Morgan engaged in detailed item analysis to determine which particular concepts students need to improve their understanding and performance on the comprehensive economics exam. Beginning in 2014, Noell revised 5 test items, Morgan revised 3 test items, and Noell and Morgan jointly revised an additional 3 test items for the comprehensive economics exam that was administered in Fall 2013 and Spring 2014. Paul Morgan pursued measures to raise the performance level in principles of microeconomics and principles of macroeconomics in Spring 2014.

## II. Follow-Ups

<b>Program Learning Outcome</b>	Students exhibit effective writing skills in economics and business documents.
<b>Who is in Charge</b>	John Tynan/Rick Ifland
<b>Major Findings</b>	In Spring 2015, for EB 180 Tynan developed benchmarks and a rubric for assessing student's writing performance and reported the results to the department. Since MacCulloch retired as an Adjunct Professor in Spring 2014, and Tyan replaced him, Ifland and Tynan re-developed bench marks and gathered the data as presented here and will perform any necessary follow-up.
<b>Closing the Loop Activities</b>	Tynan assessed EB student writing skills in EB 180 in Spring 2015. A report is provided in Appendix B that includes a detailed description of the writing performance criteria, details as to what is expected at benchmark points, a particular rubric employed, and presentation alongside interpretation of the results of student writing performance, once completed.
<b>Discussion</b>	MacCulloch stopped teaching EB 180 in Spring 2014 so continued assessment will continue with Tynan in EB 180 or similar.

### III. Other Assessment Projects

<b>Project</b>	Review Curricular Map, Multi-Year Action Plan, and Student Learning Outcomes from EB Website (as recommended by PRC response to 2012 report); Present assessment results for PLOS and Senior Student Satisfaction Survey to EB faculty
<b>Who is in Charge</b>	Rick Ifland
<b>Major Findings</b>	Curricular Map, Multi-Year Action Plan, and Student Learning Outcomes from EB Website have been revised and can be viewed on the website.
<b>Action</b>	We revised the Curricular Map and Multi-Year Action Plan on the EB website; We discussed PLO assessment reports with EB faculty along with Senior Student Satisfaction Survey results.
<p><b>Discussion</b></p> <p>Student Learning Outcomes are needed for specific courses but do not need to be included in the Curricular Map nor posted on the website. Since two full-time EB faculty members departing in 2012-13, the addition of Rick Ifland to the EB faculty beginning Fall of 2013, the addition of Enrico Manlapig beginning in Fall 2014, and the addition of Martin Asher beginning in the Spring of 2016, additional revisions of particular assessment items and responsibilities may need to be made in the Multi-year Action Plan. Some of these changes have been made and the adjustments are indicated in section IV. Additional changes will be made during the course of the year.</p> <p>Assessment results for PLOS and senior student satisfaction survey are presented in EB department meetings and shared with EB faculty (full-time and part-time). Specific benchmarks for success in senior student satisfaction survey items will be developed in the 2016-2017 school year.</p>	

**IV. Adjustments to the Multi-year Action Plan**

<b>Proposed adjustment</b>	<b>Rationale</b>	<b>Timing</b>
<b>Assessment of Core Knowledge Competence in Economics</b>	<b>Aim to achieve 70% competence benchmark for comprehensive economics exam performance</b>	<b>2013-14 through 2015-16</b>
<b>Assessment of Effective Written Communication (EB 180)</b>	<b>See reported benchmarks, rubric, and presentation and interpretation of results in Appendix B.</b>	<b>2013-14</b>
<b>Assessment of Effective Oral Communication (EB 105, 191)</b>	<b>Follow-up on results previously reported with specific steps taken to improve EB student oral communication</b>	<b>2014-15</b>
<b>Research Competence in Economics and Business (EB 103, 135)</b>	<b>Move assessment of this PLO forward in light of newness of Enrico Manlapig to our program</b>	<b>2015-16</b>

**V. Appendix**

- A. Table of Department Economics Field Exam Content and Discussion of Item Analysis**
- B. Writing Intensive benchmark and rubric**

## Appendix A

### Table of Department of Economics Field Exam Content and Discussion

The economics field test that is administered in the Senior Seminar course. This exam represents an attempt to establish a baseline of understanding for the economics portion of the major. The content and style of the test was patterned after the Council for Economic Education's, TUCE (Test of Understanding in College Economics), a nationally normed test for Principles of Economics courses. Content on the TUCE covers the concepts of scarcity, opportunity cost, choice, supply and demand, utility, elasticity, price ceilings and floors, theory of the firm including revenues, costs, marginal analysis, market structures, wages, rents, interest, profits, income distribution, the microeconomic role of government including public goods, maintaining competition, externalities, taxation, income redistribution, public choice, comparative advantage, trade, and exchange rates. These are all topics that are part of the Principles of Economics sequence and are examined more deeply in the upper division courses. Content coverage on the department was similar to the TUCE with the additional feature of coverage of Econometrics and upper division Microeconomics and Macroeconomics. The department believes that the content distribution for the test was true to the goal of economic literacy for our EB majors. Percentages on the TUCE include those for both their Microeconomics and Macroeconomics tests.

The field test revealed that many of the foundational economic concepts are well understood by the end of the last semester of the senior year. Test scores were 90% or above on the benefits of trade, opportunity cost, markets and equilibrium price, economic incentive, statistical correlation, comparative advantage, basic public choice theory, measurement of net exports, prices and economic incentive, and property rights among others. Excluding two questions that were unreliable, scores ranged from 52% down to 12% on the concepts of external costs, the CPI, demand vs. quantity demanded, nominal GDP, cost calculation, monopolistic competition, calculation of the Keynesian multiplier, and functions of money. Over the breadth of the field test, we were reasonably satisfied with the results given that students did not do any refreshing on the concepts tested. However, we would like to see improvement in the overall performance and particularly on the lower scoring concepts.

On the more advanced portions of the test covering concepts from the Intermediate Microeconomics and Intermediate Macroeconomics courses, test averages were lower than on the overall test. For the Intermediate Microeconomics portion, form A, the average on 13 questions was 54%, and for form B on Intermediate Macroeconomics portion of 13 questions, the average was 46%. Among those questions, concepts for which scores were above 60% included the law of one price, constrained optimization, cost minimization, game theory, indifference curve analysis, the Coase theorem, the Solow growth model, and Monetarism and stable velocity. Items that scored below 50% and which were regarded as reliable covered concepts of consumer surplus, returns to scale, the basis for Keynesian versus Classical policy for unemployment, IS-LM and Keynesian expansionary policy, vertical aggregate supply and Monetarism, New

Keynesians and price rigidity, and New Classicals and costless deflation. The Intermediate Macroeconomics questions did not include graphic cues and perhaps would be improved with more supplied graphics.

We are somewhat encouraged by the results from the field Test. In regards to test reliability, the department test proved to perform reasonably well. Sixteen students, who had taken the Intermediate Microeconomics course, took form A with its heavier emphasis on microeconomics. Form A had a test reliability of 80 percent, a mean of 63.4 percent, a top score of 90 percent, and a bottom score of 48 percent. Thirty-four students, who had taken the Intermediate Macroeconomics course, took form B with its heavier emphasis on macroeconomics. Form B had a test reliability of 82%, a mean of 62.9 percent, a median of 65%, a top score of 85 percent, and a bottom score of 27 percent. Students were not given any preparation prior to the test.

An item analysis of the test showed that most test items were within a reasonable difficulty range and discriminated between the better and worse performing students. Of the 58 test items, 10 should be reviewed for difficulty or clarity and two should clearly be replaced on future test versions. Items with averages above 90 percent and discrimination below 20 percent should be reviewed and perhaps replaced with items that discriminate more. Other items that were more difficult but did not discriminate above 20 percent should also be reviewed.

Eleven test items were revised for the 2014 version of the test. Items that were used on both the microeconomics and macroeconomics portions of the test were numbers 15, 48/50 (micro/macro), and 63/64. All three of these questions discriminated at 20% and their difficulty levels were 0.76, 0.64, and 0.94 and so they should all be judged as effective items.

Again in 2014, 34 students took the macroeconomics version of the test. Three items, numbers 22, 31, and 38 were revised. Number 22 had a difficulty level of 32 percent and discriminated at 0.11 and so could still be improved. Number 31 had a reasonable difficulty level at 0.58 but did not discriminate and so it should be reviewed again. Test item number 38 had a difficulty of 0.62 and discriminated at 0.44 and so it should be included on future tests.

Overall scores on the microeconomics version of the field exam yielded a mean of 64 percent, a median of 66.6 percent with a test reliability of 38.4 percent in a small sample of 16 students. The macroeconomic version of the test also had a mean of 64 percent, a median of 63.3 with a higher reliability of 64.2 percent in a larger section of 34 students. Mistaken filing and disposal of item analysis data disallowed an analysis of the microeconomics version of the test for 13 students.

**Appendix B**  
**Writing Intensive Student Learning Outcome**

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<b>Case Study Grading Rubric</b>					
<b>Scale:</b>		<b>0.00 – 69%</b>	<b>70% – 79%</b>	<b>80% – 89%</b>	<b>90% - 100%</b>
<b>Criterion</b>	<b>%</b>	<b>Below Standard</b>	<b>Approaching Standard</b>	<b>At Standard</b>	<b>Exceeds Standard</b>
<b>Understanding</b>	25%	Shows little understanding of the issues, key problems, and the company's present situation and strategic issues. Executive summary missing or poorly constructed.	Shows some understanding of the issues, key problems, and the company's present situation and strategic issues. Executive summary inadequate.	Shows adequate knowledge of the issues, key problems, and the company's present situation and strategic issues. Executive summary adequate.	Shows superior knowledge of the issues, key problems, and the company's present situation and strategic issues. Effective Executive Summary.
<b>Analysis, evaluation and recommendations</b>	25%	Presents an incomplete analysis of the issues identified. Makes little or no connection between the issues identified and the strategic concepts studied in the reading. Presents realistic or appropriate recommendations with little, if any, support from the information presented and concepts from the reading.	Presents a superficial analysis of some of the issues identified; omits necessary financial calculations. Makes appropriate but somewhat vague connections between the issues and concepts studied in the reading; demonstrates limited command of the strategic concepts and analytical tools studied. Presents realistic or appropriate recommendations supported by the information presented and concepts from the reading.	Presents a thorough analysis of most issues identified; includes most necessary financial calculations. Makes appropriate connections between the issues identified and the strategic concepts studied in the reading; demonstrates good command of the strategic concepts and analytical tools studied. Presents specific, realistic, and appropriate recommendations supported by the information presented and concepts from the reading.	Presents an insightful and thorough analysis of all issues identified; includes all necessary financial calculations; Makes appropriate and powerful connections between the issues identified and the strategic concepts studied in the reading; demonstrates complete command of the strategic concepts and analytical tools studied. Presents detailed, realistic, and appropriate recommendations clearly supported by the information presented and concepts from the reading.
<b>Research</b>	25%	Supplements case study, if at all, with incomplete research and documentation.	Supplements case study with limited research into the present situation of the company; provides limited documentation of sources consulted.	Supplements case study with relevant research into the present situation of the company; documents all sources of information.	Supplements case study with relevant and extensive research into the present situation of the company; clearly and thoroughly documents all sources of information.
<b>Writing Mechanics</b>	25%	Writing is unfocused, rambling, or contains serious errors; lacks detail and relevant data and information; poorly organized. Grammar, spelling, punctuation, professional writing, and syntax needs significant improvement.	Writing lacks clarity or conciseness and contains numerous errors; gives insufficient detail and relevant data and information; lacks organization. Grammar, spelling, punctuation, professional writing, and syntax needs improvement.	Writing is accomplished in terms of clarity and conciseness and contains only a few errors; includes sufficient details and relevant data and information; well-organized. Adequate grammar, spelling, punctuation, professional writing, and syntax.	Writing demonstrates a sophisticated clarity, conciseness, and correctness; includes thorough details and relevant data and information; extremely well-organized. Excellent grammar, spelling, punctuation, professional writing, and syntax.

In this class, there were 42 students who received the following break-down for their assignment:

- 9 students received an A (exceeds standard);
- 11 students received an A- (exceeds standard);
- 10 students received a B+ (at standard);
- 6 students received a B (at standard);
- 1 student received a B- (at standard);
- 4 students received C's (approaching standard);
- 1 student received a C- (approaching standard); and
- No students received lower than a C- (so no students were operating below standard)

Our conclusion is that most students appear to be operating at or above standard. We will need to measure these results with future classes in order to gather more data and to measure more precisely.