

## **Economics Department Graduate Assessment Report for 2010**

### **Introduction**

The M.A. degree in economics is a one year program; students attending full-time can start in the fall and finish during the summer term. Students complete core courses in micro and macroeconomic theory, math and statistics, and choose amongst several elective courses to round out the program. The one-year format has some disadvantages. For example, we could offer more software and applied training in a two year program. However the fact that it is a one-year program also appears to be an important feature of the program for our students and switching to a two-year program could cause us to lose a significant number of potential students to other area masters programs.

Each year, a few of our better undergraduate students continue into the Masters. The two are separate degrees; there is no combined or accelerated BA/MA program. Most of our graduate students have their BA from another university, and several of these students are enrolled in the program while working full time. The fact that we offer the core graduate courses in the evening is a big draw for these students, who typically take between two and three years to complete the program.

In an ongoing effort to increase the applied content in the MA program, the department increased the Statistics course (ECN 622) from three to four credit hours, starting in the fall of 2009. The increase in credit hours reflects the inclusion of instruction in the use of statistical software packages and applications to the course material. By providing a solid foundation in the software in ECN 622, the instructor can focus on more advanced techniques and applications in the Econometrics course (ECN 625).

The program has been successful in recruiting students to the program in recent years. Total enrolments (measured in total credit hours) have risen over the last few years. As of the writing of this report, total enrollment in MA level courses for the academic year 2009-2010 (fall 2009 through summer 2010) stands at 567 credit hours. This represents a significant increase over the total enrollment of 382 credit hours in AY 2004-2005 and 219 credit hours in AY 1999-2000. Over forty different students have been identified taking courses in the MA program over the past academic year.

### **Goals**

The goals of the Master's Program in economics are threefold:

1. Students acquire the skills needed to apply macroeconomic theory to public policy questions.
2. Students acquire the skills needed to apply microeconomics to both policy questions and the resolution of applied problems in economics.
3. Students develop the skills required to conduct applied economic research and to develop their ability to conduct and report on this research. Students show their development of these skills through their econometrics papers.

The Economics Department faculty reviews these goals on an annual basis. These goals have not been modified from the goals stated in the previous year.

### **Outcomes**

The outcomes relate to the three goals of the program. Students who successfully complete the program will be able to:

Outcome 1 (macroeconomics goals):

- a) Interpret annual, quarterly and daily macroeconomic data.
- b) Use business cycle, economic growth, inflation and unemployment models to analyze macroeconomic issues.
- c) Evaluate the impacts of monetary and fiscal policies on both national and international economies.

Outcome 2 (microeconomic goals):

- a) Understand how an economy allocates its scarce resources, including how agents make decisions, how various institutions affect incentives and decisions and how individual actions lead to a market equilibrium.
- b) Understand how external events influence choices and market equilibrium.
- c) Understand how public policy can alter incentives and affect market equilibrium.
- d) Understand concepts of efficiency.

Outcome 3 (applied goals):

Students will be able to formulate and test economic hypotheses. This includes collecting and analyzing data, relating the data to the theory so as to choose an appropriate empirical methodology and then interpreting the results. In choosing the appropriate methodology, students will be able to choose the correct statistical techniques, develop an appropriate empirical model (choice of dependent variables) and apply the appropriate tests for the validity and significance of the results.

These are the goals developed by the Economics Department faculty and have not been modified from goals stated in previous years.

### **Methods/Review**

Goals one and two are evaluated through pre and post-tests administered in advanced microeconomics (ECN 633), competition and strategy (ECN 635) and advanced macroeconomics (ECN 643). The pre-tests are administered prior to each student taking the relevant course (usually on the first class meeting) and the post-test is administered at the end of the course.

We assess achievement on goal three by evaluating the students' research projects which are completed as part of the econometrics course (ECN 625). The project requires students to formulate a hypothesis on some economic question and collect, analyze and interpret the data in order to test the hypothesis.

The graduate committee, which consists of members of the department who have graduate faculty status, evaluates both the exams and the papers.

### **Findings**

The most recent results for the assessment exams cover the 2009-2010 academic year. This includes results from autumn 2009 for advanced microeconomics (ECN 633) and for spring 2010 for both competition and strategy (ECN 635) and advanced macroeconomics (ECN 643). The results from the previous two academic years are provided as a comparison.

#### *Results for advanced macroeconomics (ECN 643):*

##### I. For spring 2010

- a) Nine students took the pre-test, while seven took both exams.
- b) The average score on the pre-test was 46.5% while the post-test average was 60.4%, representing an average increase of 13.6 percentage points. The minimum improvement was 4.5 percentage points and the maximum was 36.4 percentage points.

##### II. For spring 2009

- a) Six students took both exams.
- b) The average score on the pre-test was 43.3% while the post-test average was 52.5%, representing an average increase of 9.3 percentage points. The minimum improvement was -10 percentage points and the maximum was 10 percentage points.

##### III. For spring 2008

- a) Sixteen students took both exams.
- b) The average score on the pre-test was 57% while the post-test average was 69%, representing an average increase of 12 percentage points. The minimum improvement was -5 percentage points and the maximum was 25 percentage points.

The average final score in 2010 is higher than for both 2009 but lower than 2008, while the average improvement is comparable (but somewhat stronger) than the previous two years. The results for this exam may not be as informative as they are for the other two courses since the instructor does not make the assessment score results part of the course grade, making it likely that students do not put forth full effort on the exams. The instructor will incorporate the assessment exam scores into the students' course grades starting with the spring of 2011.

#### *Results for competition and strategy (ECN635):*

##### I. For spring 2010:

- a) Sixteen students took the pre-test while fifteen took the post-test. Fourteen students took both exams.
- b) The average score on the pre-test was 41.7% while the post-test average was 77.8%, with a mean (median) improvement 33.9 (41.7) percentage points. The minimum improvement was -25 percentage points and the maximum was 58.3 percentage points.

##### II. For spring 2009:

- a) Eight students took both exams.

b) The average score on the pre-test was 30.1% while the post-test average was 64.1%, with an average improvement of 34.7 percentage points. The minimum improvement was 13.6 percentage points and the maximum was 68.2 percentage points.

III. For spring 2008:

a) Seven students took both exams. Nine took the post-assessment exam.

b) The average score on the pre-test was 43% while the post-test average was 81%. For the seven students taking both exams, the average improvement was 39 percentage points. The minimum improvement was 17 percentage points and the maximum was 67 percentage points.

Both the average improvement and the post-test average scores are very much in line with previous years' results. The committee is very happy with these results as they show considerable student progress.

*Results for advanced microeconomics (ECN633):*

I. For fall 2009:

a) Twenty-one students took both exams. Twenty-three took the pre-test.

b) For the group taking both exams, the average score on the pre-test was 33.7% while the post-test average was 57.7%. The average (both mean and median) improvement was 24 percentage points. The minimum improvement was 4 percentage points and the maximum improvement was 52 percentage points.

II. For fall 2008:

a) Eight students took both exams. Nine took the pre-test.

b) The average score on the pre-test was 25.1% while the post-test average was 44.6%. The average improvement was 19.4 percentage points. The minimum improvement was -4 percentage points and the maximum improvement was 36 percentage points.

III. For fall 2007:

a) Eleven students took both exams. Thirteen took the post-test.

b) The average score on the pre-test was 40% while the post-test average was 55%. For the eleven students taking both exams, the average improvement was 17 percentage points. The minimum improvement was -8 percentage points and the maximum was 36 percentage points.

The average improvement is greater than the previous two years' results, which represented a significant improvement over the prior two years. The trend shows steady increases in student improvement over the last few years.

Overall, the committee is pleased with the results for ECN 635. It is difficult to make longer term comparisons with past years given the degree of instructor turnover for these courses. The department continues to work towards improving both the results of the tests and the appropriateness of the tests themselves.

### *Graduate papers for econometrics (ECN 625)*

This year the graduate committee reviewed papers submitted by graduate students for the spring 2009 econometrics course. The committee found the papers to be in line with the quality of papers reviewed over the past three years.

Overall, the committee finds that the students are doing a reasonable job of developing an empirical model, analyzing and interpreting the results. Introduction of the new Applied Economic Analysis will serve to build the students' skills in these areas.

### *Additional assessment*

In 2005, the graduate committee added an additional means to assess student learning and satisfaction with the graduate program. The committee administers an exit survey to graduating MA students prior to their exit from the university. Due to a miscommunication, the exit surveys were not administered in the spring and summer of 2009. However, we are administering them to graduates in spring and summer of 2010.

### *Directions for the future*

We are taking actions to add more applied content to the program, with an emphasis on the use of statistical software packages. The 2009 assessment report outlined two significant changes the department was making to the MA program in order to increase the amount of applied content. The first was a change in the statistics course from three to four credit hours effective fall of 2009. The increase in credit hours allows the instructor to spend more time on applied material. The second, more significant improvement is the creation of an applied economics course which is being offered for the first time in the summer of 2010. The course, currently being designed by Professor Bill Kosteas, will provide students with hands on experience working with data and conducting empirical analyses. Students will work with a variety of economic datasets, develop empirical models, fit those models using a variety of econometric techniques and draft reports discussing their results.

In addition to these changes, the graduate committee chair continues to develop a database keeping track of recent graduates aimed at facilitating communication with these former students. Ultimately, we would like to establish a network between our alumnae so that they may share information about potential jobs and provide current students with information about various careers and employers.