Assurance of Student Learning 2018-2019	
Gordon Ford College of Business	Economics
MA in Applied Economics - 0410	

Use this page to list learning outcomes, measurements, and summarize results for your program. Detailed information must be completed in the subsequent pages.		
Student Learning Outcome 1: Students will demonstrate ability to conduct economic research and to communicate their findings using <u>written</u> communication.		
Instrument 1	Direct: Analysis of Capstone Project	
Based on your results, circle or highlight whether the program met the goal Student Learning Outcome 1.	**Met**	Not Met
Student Learning Outcome 2: Students will demonstrate ability to convey research ideas and findings using <u>oral</u> communication and appropriate visual aids.		
Instrument 1	Direct: Capstone Project Presentation	
Based on your results, circle or highlight whether the program met the goal Student Learning Outcome 2	**Met**	Not Met
Student Learning Outcome 3: Students will demonstrate ability to apply econometric modeling techniques to study real-world questions.		
Instrument 1	Direct: Course project in ECON 465 – Regression and Econometrics	
Based on your results, circle or highlight whether the program met the goal Student Learning Outcome 3.	**Met**	Not Met
Student Learning Outcome 4: Students will demonstrate appropriate data skills necessary to conduct economic research.		
Instrument 1	Direct: Targeted assignments in ECON 506 – Applied Statistical Methods	
Based on your results, circle or highlight whether the program met the goal Student Learning Outcome 1.	**Met**	Not Met
Student Learning Outcome 5: Students will demonstrate knowledge of statistical tools necessary to conduct economic research.		
Instrument 1	Direct: Targeted assignments in ECON 506 – Applied Statistical Methods	
Based on your results, circle or highlight whether the program met the goal Student Learning Outcome 1.	**Met**	Not Met
Program Summary (Briefly summarize the action and follow up items from your detailed responses on subsequent pages.)		
The learning objectives have been met. In the process of assessment, a potential area of improvement has been identified: While the students display mastery in the knowledge of statistical techniques and their applications, the scope of the research topics chosen for their capstone projects is sometimes too broad, making the project hard to manage, or too narrow, making the results less interesting and applicable.		

Student Learning Outcome 1	
Student Learning Outcome	Students will demonstrate their ability to conduct economic research and to communicate their findings using written communication.
Measurement Instrument 1	DIRECT measures of student learning: Students in the MA in Applied Economics (0410) are required to complete an applied project at the end of the program. Under the mentorship of a faculty member, students choose a research topic, find the relevant data to conduct empirical tests, create an econometric model, and perform necessary data analysis to answer their research questions. Students are instructed to structure their papers similarly to an economics journal article and include an introduction, literature review, data and methodology section, analysis of empirical results, and a conclusion. Papers are evaluated on the following criteria: 1. Did the student formulate an appropriate research question grounded in economic theory? 2. Does the paper contain an adequate literature review? 3. Does the student clearly state the hypothesis and chose an appropriate econometric model to test the hypothesis? 4. Did the student correctly interpret the findings in the paper? 5. Did the student draw correct conclusions based on the results presented in the paper? 6. Did the student discuss limitations of the study and the general applicability of its results?
Criteria for Student Success	At the end of the program, students should be able to perform at the level of Capstone (4) or Milestone (3) according to LEAP *Inquiry and Analysis* rubric.

Program Success Target for this Measurement	80% or more	**Percent of Program Achieving Target**	90.9%
Methods	Direct artifacts were collected from all students who completed ECON 596, the capstone course for the masters' program. The data cover the entire population of 2018-19 graduates of the program (N=11). The papers were evaluated by three economics faculty using a 1-4 scale for each criterion. The scores were assigned based on LEAP *Inquiry and Analysis* rubric items (1) Topic Selection, (2) Existing Knowledge, Research and/or Views, (3) Design Process, (4) Analysis, (5) Conclusion and (6) Limitations and Implications. Using this rubric, each evaluator produced an average score for each paper by computing a simple average of the six items in the rubric. Therefore, each paper received three scores – one from each evaluator – and the mean of these three score was computed for each student.			

Based on your results, circle or highlight whether the program met the goal Student Learning Outcome 1.	<mark>Met</mark>	Not Met

Student Learning Outcome 2			
Student Learning Outcome	Students will demonstrate their ability to convey research ideas and findings using <u>oral</u> communication and appropriate visual aids.		

Measurement Instrument 1	DIRECT measures of student learning: Students in the MA in Applied Economics (0410) are required to complete an applied project at the end of the program and present it to the economics faculty. The presentations are organized similarly to a thesis defense: The students deliver a 20-25 presentation of their projects followed by a question/answer session. The presentations are evaluated on the following criteria:
	    1. Was the information presented effectively?
	    2. Did the student correctly and effectively used economic concepts to convey his or her ideas?
	    3. Were the visual aids (slides or handouts) used effectively?
	    4. Was the presentation well-focused around the central idea of the project?		

Criteria for Student Success	At the end of the program, students should be able to perform at the level of Capstone (4) or Milestone (3) according to LEAP *Oral Communication* rubric.		
Program Success Target for this Measurement	80% or more	**Percent of Program Achieving Target**	90.9%
Methods	The data are based on direct observations of the students' project presentations. The data were collected from all students in the capstone project (ECON 596) and cover the entire population of 2018-19 graduates of the program (N=…). Three faculty members served as the assessment committee tasked with evaluating all of the project presentations to ensure consistency of measurement. Students' presentations were rated on the three criteria listed above using a 1-4 scale for each criterion. The scores were assigned based on LEAP *Oral Communication* rubric items (1) Organization, (2) Language, (3) Supporting Material, (4) and Central Message. Using this rubric, each evaluator produced an average score for each presentation by computing a simple average of the four items of the rubric, with each student receiving three scores – one from each evaluator – and the mean of these three score was computed for each student.		
Based on your results, circle or highlight whether the program met the goal Student Learning Outcome 2.		<mark>Met</mark>	Not Met

Student Learning Outcome 3			
Student Learning Outcome	Students will demonstrate ability to apply econometric modeling techniques to study real-world questions		
Measurement Instrument 1	DIRECT measures of student learning: One of the core courses in the MA in Applied Economics (0410) is Regression and Econometrics (ECON465G), which is also one of the research methods courses in the program. During the course, students learn a variety of econometric techniques. At the end of the course, students have to complete a project during which they have to identify the appropriate econometric technique to study the assigned problem, perform required calculations and interpret their results. This project served as the instrument for measuring this learning objective. Specifically, the following items were assessed: 1. Was the student able to formulate the research question in terms of the appropriate econometric model? 2. Was the student able to perform necessary calculations to estimate the model? 3. Did the student correctly interpret the estimation results?		
Criteria for Student Success	At the end of the program, students should be able to perform at the level of Capstone (4) or Milestone (3) according to LEAP *Quantitative Literacy* rubric.		
Program Success Target for this Measurement	80% or more	**Percent of Program Achieving Target**	83.3%
Methods	The data were collected from all the graduate students enrolled in the ECON 465G course during the fall 2019 semester (N=12). The instructor of the course rated students' projects on the three criteria listed above using a 1-4 scale for each criterion. The scores were assigned based on LEAP *Quantitative Literacy* rubric items (1) Representation, (2) Calculation, (3) Application/Analysis. Using this rubric, an average score over these three items was computed for each student		
Based on your results, circle or highlight whether the program met the goal Student Learning Outcome 2.		**Met**	Not Met

Student Learning Outcome 4			
Student Learning Outcome	Students will demonstrate appropriate data skills necessary to conduct economic research.		
Measurement Instrument 1	Direct: Targeted assignments in ECON 506 – Applied Statistical Methods course. Among the assignment given throughout the course, students were required to complete assignments that measured their competency in choosing and using the appropriate data skills necessary to perform subsequent data analysis. Skills addressed included importing data into statistical software, data management skills (e.g. merging, subsetting datasets) etc.		
Criteria for Student Success	Upon completion of the program, students should perform at the Intermediate or Advanced level.		
Program Success Target for this Measurement	80% or more	**Percent of Program Achieving Target**	94.1%
Methods	At the end of the instructor of the ECON 506 course assessed the knowledge of the students on the following scale: 1 – Beginner 2 – Beginner + 3 – Intermediate 4 – Advanced. The ratings are intended to mirror the *Calculation* item in the LEAP *Quantitative Literacy* rubric. The data are collected from all of the students in the ECON 506 course (N=19), a core course in the MA in Applied Economics.		
Based on your results, circle or highlight whether the program met the goal Student Learning Outcome 2.		<mark>Met</mark>	Not Met

Student Learning Outcome 5

Student Learning Outcome	Students will demonstrate knowledge of statistical tools necessary to conduct economic research.
Measurement Instrument 1	Direct: Targeted assignments in ECON 506 – Applied Statistical Methods course. Among the assignment given throughout the course, students were required to complete assignments that measured their competency in choosing and using the appropriate statistical tools necessary to conduct analysis of economic data.
Criteria for Student Success	Upon completion of the program, students should perform at the Intermediate or Advanced level.

Program Success Target for this Measurement	80% or more	**Percent of Program Achieving Target**	88.2%

Methods	At the end of the instructor of the ECON 506 course assessed the knowledge of the students on the following scale: 1 – Beginner 2 – Beginner + 3 – Intermediate 4 – Advanced. The ratings are intended to mirror the *Calculation* item in the LEAP *Quantitative Literacy* rubric. The data are collected from all of the students in the ECON 506 course (N=17), a core course in the MA in Applied Economics.

Actions (Describe the decision-making process and actions planned for program improvement. The actions should include a timeline.)

Overall, the targets set out for the program have been met. Individual analysis of the items in the rubrics used to assess the SLOs show that on all except one item, 90% of the students' performance was rated as 3 or higher. The only item that was below 90% level is the *Topic* in SLO 1 – 81.8% of the students received a rating of 3 or higher. This suggests that students tend to choose the topics that are either too narrow or too broad. As a whole, however, students in the program demonstrated high levels proficiency in all other aspects.

To address this issue of research topic selection, more examples of the empirical papers from the economics have been incorporated in the core courses of the program (ECON 502 – Applied Microeconomics, ECON 503 Applied Macroeconomics, ECON 506 – Applied Statistical methods) with the intent of exposing students to different types of economic research.

Follow-Up (Provide your timeline for follow-up. If follow-up has occurred, describe how the actions above have resulted in program improvement.)

At the end of the 2019-20 academic year, graduating masters' students will be assessed on the same criteria and a more detailed picture will emerge.