Assurance of Student Learning 2018-2019	
Gordon Ford College of Business	Economics
Graduate Certificate in Economic Data Analytics - 0491	

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 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.		<mark>Met</mark>	Not Met
Student Learning Outcome 2: 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.		<mark>Met</mark>	Not Met
Student Learning Outcome : 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	<mark>Not Met</mark>

Program Summary (Briefly summarize the action and follow up items from your detailed responses on subsequent pages.)

This 12-hour program is embedded in the MA in Applied Economics and it shares learning objectives with that program. This assessment is based only those students who are enrolled in the certificate program, which includes the students who were enrolled in the MA program and the students who were enrolled only in the certificate.

Two of the three learning objective have been met. The one objective that has not been met is SLO 3 – Knowledge of Statistical tools. This could be a result of the small sample used for this report – only six students have been assessed for this report, which represents the entire population of the program, and only one student failed to attain the target.

Student Learning Outcome 1	
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=6). 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, the 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.	<mark>Met</mark>	Not Met

Student Learning Outcome 2			
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 management techniques 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=6), 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.		Met	Not Met

Student Learning Outcome 3			
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=6), 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.)			
Two of the three learning objective have been met. The one objective that has not been met is SLO 3 – Knowledge of Statistical tools. This could be a result of the small sample used for this report – only six students have been assessed for this report, which represents the entire population of the program, and only one student failed to attain the target. As the students in the related program – MA in Applied Economics – met this target, it is not clear whether the outcome for the certificate was just a small-sample issue or a deeper underlying problem.			
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, the data on the new cohort will be reassessed, and if the pattern persists, the department will examine the need for curricular adjustments in the courses required for the certificate.			