CBE AOL Closing the Loop Form

Program: BS Economics Date: 5/4/20

Learning Goal: 1. Students who graduate will be knowledgeable of modeling techniques to solve microeconomic problems.

Learning Objective: 1A. Students who graduate will formulate mathematical models to solve microeconomic problems.

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Closing-the-Loop

2. Review previous LO assessment data and improvement actions taken since then in the AOL Summary Report.
3. Document below the effectiveness of past improvement actions in improving student learning or the AOL process (this is what is known as “closing-the-loop”).

As of Fall 2018, BS Economics students are required to take an additional class that applies mathematical and statistical tools to analyze microeconomic and econometric problems. It is taught by the economics faculty: ECON 210: Quantitative Methods for Economists. The class builds upon a required class in calculus (or business calculus) and offers the economics department an opportunity for remediation (if necessary) and the introduction of more advanced skills before, or while, students take upper-division economics classes, in particular ECON 300, 301, and 305. Problem-solving skills relevant to this objective require algebra, basic graphing, and calculus. These skills are emphasized in ECON 210.

Assessment of Learning Objective 1 was moved from ECON 300 to ECON 301. One of four questions on the ECON 301 final exam is now a decision problem with optimization. It has familiar elements but is not the type of problem students have seen before. 39% met the benchmark, which is below the benchmark of 70%. However, a deeper analysis reveals evidence that the addition of ECON 210 has been effective. In the class of 44 students, 18 were (or are now classified as) BS Economics students, 24 were BA Economics students, and 2 were other. Of the 17 BS Economics students who took the final, 11 (64.7%) met the benchmark. Of the 23 BA Economics students who took the final, 5 (21.7%) met the benchmark. Since BS Economics students are required to take ECON 210 while the BA Economics are not, this is evidence that past improvement actions have been effective in improving students’ ability to form and solve mathematical problems in economics.

4. Document below your evaluation of current LO assessment data compared to the benchmark and the need for new improvement actions. Consider not just the overall average LO score but also score on individual traits shown in the Assessment Report and derived from the LO rubric.

As highlighted above, 64.7% of BS Economics students met the benchmark of 70% on the final exam question. This is close to the target of 70% of students meeting the benchmark. Though only 21.7% of BA Economics students met the benchmark of 70%, these students did not take ECON 210 as it is not required under the BA Economics program. Since the BA Economics program is no longer offered, all incoming economics students are enrolled in the BS Economics program and are required to take ECON 210. Therefore, the figure of 64.7% if the relevant statistic to focus on. Since it is close to the benchmark, and major changes to the Economics program are still recent, we do not believe any significant improvement actions are needed at this time.

5. Record below a list of recommended course-level or programmatic actions to improve student learning or the AOL process.
   a. Sort the list from most recommended to least.
   b. Given our mature AOL system, ideas should not be limited to just AOL system improvements.
   c. For each improvement action proposal, list the project leader, timeline to completion, required resources, expected ease of implementation (hard, medium, easy), and expected impact on student learning (low, medium, high).
   d. You may use ease of implementation and impact on student learning to rank improvements.
   e. There is no guarantee that improvement ideas will be approved. They need to be reviewed by the program director, curriculum committee and dean.
Use "Learning Glass" technology available through Media and Academic Technology Services (MATS) to provide several videos of instructor solving the more algebra and calculus intensive problems in microeconomics. These videos will be posted online to complement in-person instruction. The program leader is Ryan Lampe, the current ECON 300 and 301 instructor. Target is to produce five 15-minute videos covering material from ECON 300 by the end of fall 2020. Similar videos will be produced for ECON 301 by the end of spring 2020. The technology is available through MATS and does not require any additional resources. The expected (measurable) impact is likely to be low.