| Assurance of Student Learning Reflection 2024-2025   |  |           |
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| Gordon Ford College of Business/Ogden College        |  | Economics |
| Mathematical Economics BS 731                        |  |           |
| David Zimmer, Chair                                  |  |           |
| Is this an online program? ☐ Yes ☒ No Please t ☒ Yes | Please make sure the Program Learning Outcomes listed match those in CourseLeaf. Indicate verification here<br>Yes, they match! (If they don't match, explain on this page under <b>Evaluation</b> ) |           |

<u>Instructions</u>: For the 2024-25 assessment, we are asking you to reflect on the last three-year cycle rather than collect data. It's important to take time to look over the results from the last assessment cycle and really focus on a data-informed direction going forward. In collaboration with your assessment team and program faculty, review each submitted template from 2021-2024 and consider the following for each Program Learning Outcome, add your narrative to the template, and submit the draft to your ASL Rep by May 15, 2025.

| Program Student Learning Outcome 1  |  |
|-------------------------------------|--|
| Program Student Learning<br>Outcome | Students will demonstrate their ability to apply mathematical models to study economic questions.  |
| Evaluation                          | This SLO remains revelvant and crucial to our discipline.  |
| Measurement Instruments             | We feel that our measurement instrument remains appropriate and accurately captures the outcome. Students in the Economics major (731) are required to complete a capstone course at the end of the program. One of the requirements of the course is to write a research paper that synthesizes the knowledge of economics and mathematics. The goal of the project is to assess how well the students can apply their knowledge to study real-world questions. The papers are evaluated on the following criteria:  1. Did a student formulate an appropriate research question grounded in economic theory?  2. Does the paper contain an adequate literature review?  3. Did a student design an appropriate quantitative model to study the research question?  4. Did the student employ appropriate data to test the hypothesis and interpret the findings correctly? |
| Criteria & Targets                  | At the end of the program, students should be able to perform on average at the level of Capstone (4) or Milestone (3) according to LEAP <i>Inquiry and Analysis</i> and <i>Quantitative Literacy</i> rubric. 80% or more students should meet this target. This is an appropriate target.   |
| Results & Conclusion                | Results: Our students have consistently fallen below the 80% target. Scores have landed around 70%.  Conclusions: Around 2010, our department set out to increase the rigor or our capstone research projects. But their ability to reach our desired threshold on this SLO has remained stubbornly low.   |

| **IMPORTANT     | - Plans | for |
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| Next Assessment | Cvcle:  |     |

This is a challenging SLO, so even students who fall to reach the threshold still demonstrate impressive skills. Nonetheless, we still believe 80% is an appropriate target. In response, we have increased our treatment of quantitative methods in the courses leading up to the capstone project. That has especially been truth with respect to the software implementation of mathematical methods. We intend on monitoring performance for the next few cycles to see if those adjustment have lead to gains in this SLO.

| Program Student Learning Outcome 2                |  |
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| Program Student Learning<br>Outcome               | Students will demonstrate ability to convey their research findings using oral communication   |
| Evaluation  | This SLO remains revelvant and crucial to our discipline.  |
| Measurement Instruments                           | We feel that our measurement instrument remains appropriate and accurately captures the outcome. Students in the Economics major (731) are required to complete a capstone course at the end of the program. During that course, students are required to write a paper and present it to the economics faculty. The presentations are structured as a mini-conference with each student giving a poster presentation. Each student is required to prepare a poster, deliver a brief summary of his or her paper, and answer follow-up questions. The presentations are evaluated on the following criteria:  1. Was the information organized well on the poster?  2. Did the student follow good practices when designing the poster?  3. Did the student present the material well? |
| Criteria & Targets                                | 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 <i>Oral Communication</i> rubric items (1) Organization, (2) Supporting Material, (3) and Language. Using this rubric, each evaluator produced an average score for each presentation by computing a simple average of the three items of the rubric, with each student receiving three scores – one from each evaluator – and the mean of these three score was computed was computed for each student. 80% or more students should meet this target. This is an appropriate target.   |
| Results & Conclusion                              | Results: Our students have consistently met or exceeded this target during recent years. Scores have landed aounrd 90.  Conclusions: Students' abilities to convey their research findings have consistently been excellent during recent cycles.  |
| **IMPORTANT - Plans for<br>Next Assessment Cycle: | We do not believe we need to make changes to the measurement instrument of methods for assessing success. We are debating, however, whether we need to use a stricter threshold for our Math Econ students, compared to our other majors, and our Math Econ students are very strong in their oral presentation skills.  |

| Program Student Learning Outcome 3                |  |
|---|--|
| Program Student Learning<br>Outcome               | Students will demonstrate knowledge of key principles of microeconomics.   |
| Evaluation  | This SLO remains revelvant and crucial to our discipline.  |
| Measurement Instruments                           | We feel that our measurement instrument remains appropriate and accurately captures the outcome. Students in the Economics major (724) are required to complete a capstone course at the end of the program. During the course, students have two take two exams – a microeconomics exam and a macroeconomics exam. The exams used in the class have been developed by the National Council for Economic Education (NCEE). These exams were designed with two objectives in mind: "(1) to offer a reliable and valid assessment instrument for students in principles of economics curses; and (2) to provide norming data for large national sample of students in principles classes". The exams cover a range of economic topics and can serve as a good measure not only of the attainment of knowledge in the principles courses but also as a measure of retention and reinforcement of that knowledge throughout the program. |
| Criteria & Targets                                | At the end of the program students should perform at the 70th percentile or higher compared to the national sample of economics principles students. This is an appropriate target.  |
| Results & Conclusion                              | Results: Our students have consistently met or exceeded this target during recent years. Scores have landed in the mid 80s.  Conclusions: Students are performing at an appropriate level for this SLO.  |
| **IMPORTANT - Plans for<br>Next Assessment Cycle: | We do not believe we need to make changes to the measurement instrument of methods for assessing success. The NICE exams are rigorous, nationally-relevant tools for assessing knowledge in our discripline. The main internal debate is whether we need to increase the threshold to 75% or 80%. If score remain high during subsequent cycles, we might undertake such a revision.   |

| Program Student Learning Outcome 4                |  |
|---|--|
| Program Student Learning<br>Outcome               | Students will demonstrate knowledge of key principles of macroeconomics.   |
| Evaluation  | This SLO remains revelvant and crucial to our discipline.  |
| Measurement Instruments                           | We feel that our measurement instrument remains appropriate and accurately captures the outcome. Students in the Economics major (724) are required to complete a capstone course at the end of the program. During the course, students have two take two exams – a microeconomics exam and a macroeconomics exam. The exams used in the class have been developed by the National Council for Economic Education (NCEE). These exams were designed with two objectives in mind: "(1) to offer a reliable and valid assessment instrument for students in principles of economics curses; and (2) to provide norming data for large national sample of students in principles classes". The exams cover a range of economic topics and can serve as a good measure not only of the attainment of knowledge in the principles courses but also as a measure of retention and reinforcement of that knowledge throughout the program. |
| Criteria & Targets                                | At the end of the program students should perform at the 70th percentile or higher compared to the national sample of economics principles students. This is an appropriate target.  |
| Results & Conclusion                              | Results: Our students have consistently met or exceeded this target during recent years. Scores have landed in the mid 80s.  Conclusions: Students are performing at an appropriate level for this SLO.  |
| **IMPORTANT - Plans for<br>Next Assessment Cycle: | We do not believe we need to make changes to the measurement instrument of methods for assessing success. The NICE exams are rigorous, nationally-relevant tools for assessing knowledge in our discripline. With scores sitting above our threshold, we don't seek to make changes to that threshold, but we intend on monitoring performance closely for this SLO.   |

| Program Student Learning Outcome 5                |  |
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| Program Student Learning<br>Outcome               | Upon completion of the program, students will demonstrate the skills necessary for conducting a job search in business economics careers.  |
| Evaluation  | This SLO remains revelvant and crucial to our discipline.  |
| Measurement Instruments                           | We feel that our measurement instruments remain appropriate and accurately captures the outcome. Students in the Business Economics major (724) are required to complete a capstone course at the end of the program. (1) During that course, students have to complete a series of assignments targeted at increasing their success on the job market, and one of these assignments was to create a resume. (2) During the capstone course, students are required to complete an assignment where they have to find five jobs for which they should be qualified. To complete the assignments, students have to create a matrix listing the job titles, company names, job descriptions, experience requirements, minimum qualifications, and educational requirements. (3) During the capstone course, they students are required to conduct a mock interview with the one of the staff members of the Center for Career and Professional Development. The interviewer provides a ranking of students' professionalism, preparedness, general interview questions, and specific job questions. |
| Criteria & Targets                                | <ol> <li>(1) Students should be able to compile a professional resume that is rated 4 or 5. We want to see 80% of students meet that threshold.</li> <li>(2) The jobs should match student qualifications listed in their resumes. We want to see 80% of students accomplish that.</li> <li>(3) Students should be able to demonstrate their ability to conduct a job interview by attaining a score of 40 or higher (out of 50 possible points) on their mock interview assessment. We want to see 80% of students accomplish that.</li> </ol>  |
| Results & Conclusion                              | Results: Our students have consistently met or exceeded these target thresholds during recent years.  Conclusions: Students are performing at an appropriate level for this SLO.   |
| **IMPORTANT - Plans for<br>Next Assessment Cycle: | We do not believe we need to make changes to the three instruments. We are, however, having an internal debate on whether the 80% thresholds are too low. We plan to closely observe for a few more cycles before implementating changes.  |