# **Annual Program Assessment Report**

Academic Year Assessed: 2022-2023

College: Agriculture and Letters and Science

Department: Agricultural Economics and Economics

Submitted by:

Undergraduate Assessment reports are to be submitted annually by program/s. The report deadline is  $\underline{October\ 15^{th}}$ .

Graduate Assessment reports are to be submitted annually by program/s. The report deadline is October  $15^{\rm th}$ .

#### Program(s) Assessed:

List all majors (including each option), minors, and certificates that are included in this assessment:

**ECNS** major

**ECNS** minor

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Have you reviewed the most recent Annual Program Assessment Report submitted and Assessment and Outcomes Committee feedback? (please contact Assistant Provost Martha Peters if you need a copy of either one).

The Assessment Report should contain the following elements, which are outlined in this template:

- 1. Assessment Plan, Schedule, and Sources
- 2. What was done this assessment cycle including rubrics, how data was collected, and who analyzed it
- 3. What was learned including areas of strength and areas for improvement
- 4. How we responded
- 5. Closing the loop

Sample reports and guidance can be found at:

https://www.montana.edu/provost/assessment/program assessment.html

## 1. Assessment Plan, Schedule and Data Source.

a) Please provide a multi-year assessment schedule that will show when all program learning outcomes will be assessed, and by what criteria (data). (You may use the table provided, or you may delete and use a different format).

ASSESSMENT PLANNING CHART						
PROGRAM LEARNING OUTCOME	2021- 2022	2022- 2023	2023- 2024	2024- 2025	Data Source*	
Students who successfully complete the ECNS major will be able to apply the concepts of economics to current social issues and/or public policies		X			Assignments in any ECNS courses	
2. Students who successfully complete the ECNS major will be able to use mathematics, graphs, and written explanations to analyze economic relationships and test the predictions of economic models using real-world data	X				Capstone Course Project Presentations, Posters, or Papers	
3. Students who successfully complete the ECNS major will be able to use welfare analysis to evaluate the costs, benefits, and distributional impacts of public policies		X			Assignments in ECNS 101, 251, or 301	
4. Students who successfully complete the ECNS major will be able to use calculus-based methods to predict and compare output, price, quantity, efficiency, and social welfare outcomes in different types of markets (e.g., competitive, monopoly)			X		Assignments in ECNS 301	
5. Students who successfully complete the ECNS major will be able to assess the impacts of macroeconomic fiscal and monetary policies on economy-wide outcomes such as national income, unemployment, and the income distribution				X	Assignments in ECNS 102, 251, or 303	
6. Students who successfully complete the ECNS major will be able to demonstrate an understanding of the comparative advantage motivations for trade at the individual, business, and international levels.			X		Assignments in ECNS 101, 251, or 301	

\*Data sources can be items such as randomly selected student essays or projects, specifically designed exam questions, student presentations or performances, or a final paper. Do not use course evaluations or surveys as primary sources for data collection.

# b) What are the threshold values for which you demonstrate student achievement? (Example provided in the table should be deleted before submission)

Threshold Values						
PROGRAM LEARNING OUTCOME	Threshold Value	Data Source				
	The threshold value for this	Randomly				
Example: 6) Communicate in written form about	outcome is for 75% of	selected				
fundamental and modern microbiological concepts	assessed students to score	student				
	above 2 on a 1-4 scoring rubric.	essays				
Students who successfully complete the ECNS	The threshold value for this	Randomly				
major will be able to apply the concepts of economics	outcome is for 75% of	selected				
to current social issues and/or public policies	assessed majors to score	student				
	above 2 on a 1-4 scoring rubric	assignments				
2. Students who successfully complete the ECNS	The threshold value for this	Randomly				
major will be able to use mathematics, data	outcome is for 75% of	selected				
visualizations, and written explanations to analyze	assessed majors to score	student				
economic relationships and test the predictions of	above 2 on a 1-4 scoring rubric	projects				
economic models using real-world data						
3. Students who successfully complete the ECNS	The threshold value for this	Randomly				
major will be able to use welfare analysis to evaluate	outcome is for 75% of	selected				
the costs, benefits, and distributional impacts of	assessed majors to score	student				
public policies	above 2 on a 1-4 scoring rubric	assignments				
Students who successfully complete the ECNS	The threshold value for this	Randomly				
major will be able to use calculus-based methods to	outcome is for 75% of	selected				
predict and compare output, price, quantity,	assessed majors to score	student				
efficiency, and social welfare outcomes in different	above 2 on a 1-4 scoring rubric	assignments				
types of markets (e.g., competitive, monopoly)						
5. Students who successfully complete the ECNS	The threshold value for this	Randomly				
major will be able to assess the impacts of	outcome is for 75% of	selected				
macroeconomic policies on economy-wide outcomes	assessed majors to score	student				
such as national income, unemployment, and the	above 2 on a 1-4 scoring rubric	assignments				
income distribution						
6. Students who successfully complete the ECNS	The threshold value for this	Randomly				
major will be able to demonstrate an understanding	outcome is for 75% of	selected				
of the comparative advantage motivations for trade at	assessed majors to score	student				
the individual, business, and international levels.	above 2 on a 1-4 scoring rubric	assignments				
7. Students who successfully complete the ECNS	The threshold value for this	Randomly				
major will be able to assess and predict monetary	outcome is for 75% of	selected				
policy actions and impacts at national and individual	assessed majors to score	student				
levels	above 2 on a 1-4 scoring rubric	assignments				

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a)	Was	the completed assessment consistent with the program's assessment plan?
		Yes

- b) If no, please explain.
- c) How were data collected and analyzed? (Please include method of collection and sample size).

A random sample of problem sets in ECNS 251 (N=4) and a 33% random sample of students in ECNS 202 (N=102). The assessment committee obtained assignments from instructors and independently assessed the artifacts using the rubric below.

d) Please provide a rubric that demonstrates how your data was evaluated.

Outcome 1: Students who successfully complete the ECNS major will be able to apply the concepts of economics to current social issues and/or public policies

Indicators	Beginning - 1	Developing- 2	Competent- 3	Accomplished- 4
Ability to identify and calculate metrics to analyze effects of public policies	Can identify metric, but lacks understanding of its purpose	Can identify metric and understands its purpose, but has some difficulties with calculation	Can identify and calculate metric	Can identify and calculate metric, and demonstrates understanding of its use in analyzing effects of policies
Ability to identify relevant economic theory for analyzing effects of public policies	Can identify theory, but lacks understanding of its purpose	Can theory and understands its purpose, but has some difficulties with correct analysis	Can identify theory and use it to perform correct analysis	Can identify and use theory, and demonstrates understanding of its use in analyzing effects of policies

Outcome 3: Students who successfully complete the ECNS major will be able to use welfare analysis to evaluate the costs, benefits, and distributional impacts of public policies

Indicators	Beginning - 1	Developing- 2	Competent- 3	Accomplished- 4
Use of welfare analysis	Includes reference to appropriate economic theory, but set up is unclear or incorrect	Set up of theoretical framework is correct, but incorrect conclusions are drawn	Set up of theoretical framework is correct, and reasonable conclusions are drawn	Set up and results of theoretical analysis are clear and correct.
Balanced attention to costs and benefits	Includes reference to costs and benefits, but theory is not fully developed	Includes analysis of costs and/or benefits, but analysis has some gaps	Includes clear analysis of costs or benefits	Includes clear, high quality analysis of costs and benefits
Theoretical analysis of distributional impacts	Identifies existence of differences in impacts of policies, but without thorough analysis	Identifies and describes differences in impacts of policies	Applies appropriate theory to analyze distributional impacts of policy	Applies appropriate theory to analyze distributional impacts of policy and draws correct conclusions

#### 3. What Was Learned

a) Based on the analysis of the data, and compared to the threshold values established, what was learned from the assessment?

Outcome 1: Students who successfully complete the ECNS major will be able to apply the concepts of economics to current social issues and/or public policies

Grading criteria 1 (ability to identify and calculate relevant metrics)

Indicators	Beginning - 1	Developing- 2	Competent-	Accomplished-
% of students at this level or higher	100	100	83.9	83.9

Grading criteria 2 (ability to identify and implement relevant economic theoretical analysis)

Indicators	Beginning - 1	Developing- 2	Competent-	Accomplished-
% of students at this level or higher	100	100	80.6	80.6

Students in ECNS 202 demonstrated their ability to apply the concepts of economics to current social issues and/or public policies, including to understand changes in technology markets, interest rate and inflation changes, trade deficits.

# Outcome 3: Students who successfully complete the ECNS major will be able to use welfare analysis to evaluate the costs, benefits, and distributional impacts of public policies

Grading criteria 1 (use of welfare analysis)

Indicators	Beginning - 1	Developing- 2	Competent-	Accomplished-
% of students at this level or higher	100	100	100	50

Grading criteria 2 (balanced attention to costs and benefits)

Indicators	Beginning - 1	Developing- 2	Competent-	Accomplished-
% of students at this level or higher	75	100	100	100

Grading criteria 3 (theoretical analysis of distributional impacts)

Indicators	Beginning - 1	Developing- 2	Competent-	Accomplished-
% of students at this level or higher	75	100	100	100

Students in ECNS 251 showed a clear ability to apply economic theory to understand the costs, benefits and distributional impacts of public policies. There were a few small errors due to incorrect calculations, but most importantly, the students understood the concepts behind the theories.

#### b) What areas of strength in the program were identified?

The ECNS program is highly effective at teaching in ways that grow students' abilities to apply the concepts of economics to current issues, and to demonstrate their understanding of the social welfare impacts of public policies.

c) What areas were identified that need improvement?

None

#### 4. How we responded

a) Describe how "What Was Learned" was communicated to the department, or program faculty.

This report was shared with all department faculty.

b) How are the results of this assessment informing changes to enhance student learning in the program?

Students are meeting the PLOs effectively.

c) If information outside of this assessment is informing programmatic change, please describe that.

N/A

# 5. Closing the Loop

a) In reviewing last year's report, what changes proposed were implemented and will be measured in future assessment reports?

The 2022-2023 report suggested that student learning could be improved via better training in writing – perhaps by finding writing classes that better train students in writing skills. The DAEE responded by encouraging more students to take writing-intensive courses (including those offered by the DAEE), and by expanding the number of writing assignments in several DAEE courses.

b) Have you seen a change in student learning based on other program adjustments made in the past? Please describe the adjustments made and subsequent changes in student learning.

Students are improving their writing and analytical skills based on adjustments based on past reports. See adjustments above in 5a.

Submit report to programassessment@montana.edu