Course-Level Assessment Project
Final Report

To complete the Final Report, type your responses to the prompts below. Share a copy of the document with your supervisor and the Associate Provost of Assessment and Institutional Research.

Faculty Name(s): Christopher U. Akujuobi, (Ph.D.)
Division/Department: Social Sciences/Economics
Course Assessed: ECON 102-Principles of Macroeconomics

Step 1. Define

Explain the purpose or rationale for assessing the selected course. Identify which course objective(s) were assessed. Briefly explain why you selected these course objectives for assessment.

The Purpose or Rationale for Assessing the Selected Course

Governments all over the world enact public policies to achieve specific goals of governance. In the field of economics these goals include solving the problems of economic growth−(increase in the gross domestic product−GDP), price stabilization (inflation control), and the creation of jobs (unemployment reduction), among others. All these economic problems form the core of macroeconomics hence the need for a course-level assessment. By selecting this course, the intention is to provide the students with a hands-on opportunity to translate the theories of demand and supply taught in the classroom into real world applications using a target market in the U.S. domestic economy.

The selected course objectives and their associated general education goals detailed below are well covered through the signature assignment utilized in this assessment.

Course Objectives Assessed and the Aligned GED Goals

The following course objectives are the basis of the analyses:

(1) Build models, analyze hypotheses, and communicate ideas in written, oral, and other modes using basic terminologies of macroeconomics (GE1, GE3, GE4).
(2) Explore basic principles of economics such as opportunity cost, factors of production, positive and normative economics (GE1, GE3).
(3) Build market supply and demand graphs with identification and understanding of equilibrium, shortages, surpluses, and shifts (GE1, GE3, GE4, GE5).

General Education Goals Aligned

(1) Communicate ideas in written, oral, and other modes as appropriate to a situation and audience.
(3) Employ various thinking strategies to develop well-reasoned judgments.
(4) Evaluate sources of information for accuracy, relevance, and reliability.
(5) Use technology tools to manage, integrate, and evaluate digital information.

Step 2. Design

Describe the instrument (project/assignment) used to assess identified course objective(s). What benchmarks and/or controls were established? Explain how the assessment instrument was externally reviewed and validated.

The signature assignments for the various semesters served as the assessment projects. The assignment title/topic is ***the application of the theories of demand and supply in macroeconomic analysis and policies in a targeted market.***

Figure 1: A Generic Market for Signature Assignment Assessment

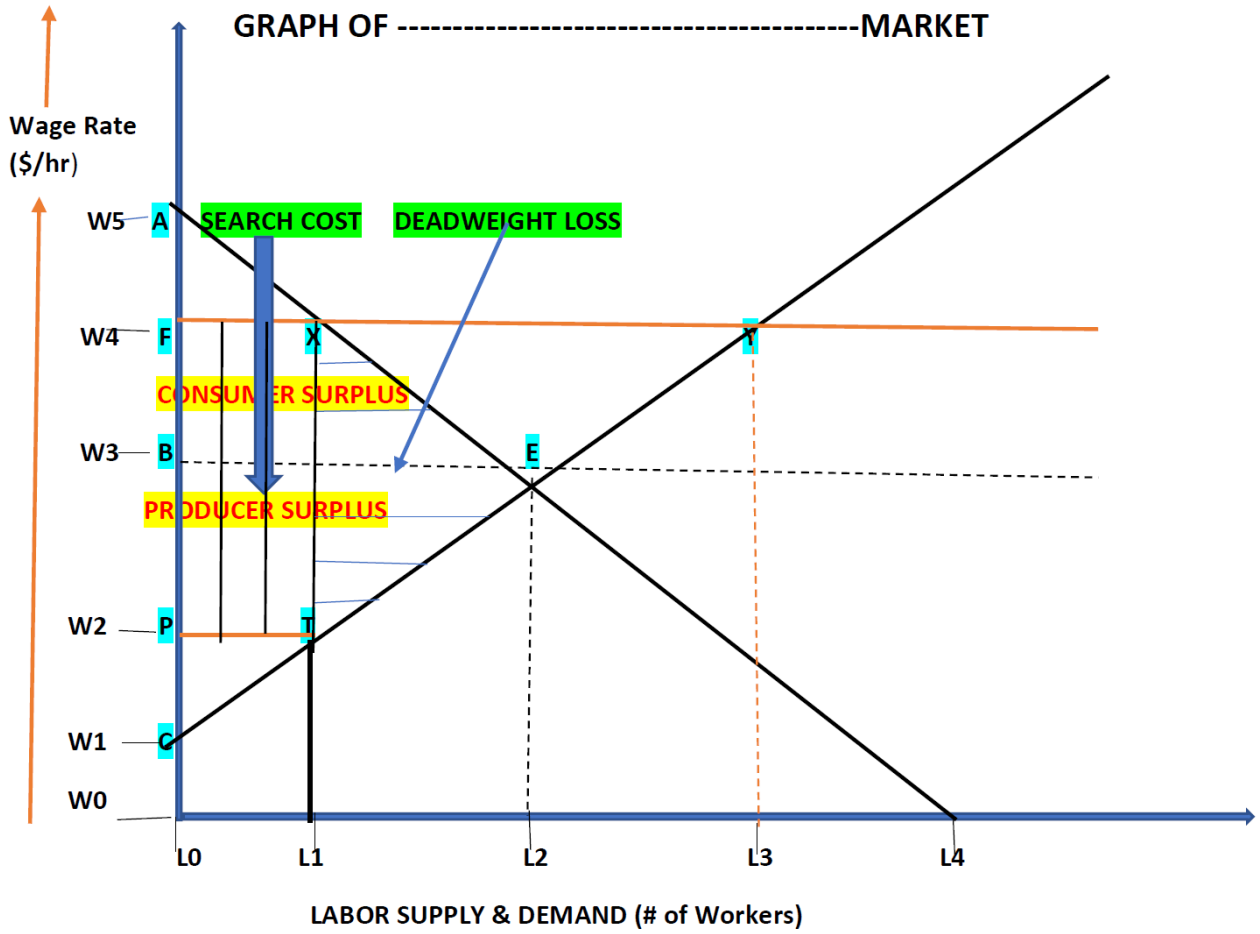


Figure 1 represents a graphical model of demand and supply in a generic market for the analyses. The specific models for each of the assessed courses evolved from this figure. The band of questions covering specific course objectives were developed from the associated models.

Step 3. Implement

Explain how the assessment was implemented. Did any unexpected challenges arise in implementing the assessment?

The assignment was implemented through the analysis of a typical market in the U.S. domestic economy shown in the graphs (figures 1, 2 and 3). The band of questions and their allocated scoring points are outlined table 1.

Table 1: The Assessment Instruments and Scoring based on the Graphical Model of Demand and Supply:

1. Please, identify and name the U.S. domestic market being analyzed in the graphical model: ----------[50 points].
2. Name the three key features of an efficient market you can identify in the graph:
i----------[50 points].
ii----------[50 points].
iii----------[50 points].
3. Compute the consumer surplus when this market is efficient (***area of triangle ABE***) $----------[50 points].
4. Compute the producer surplus when this market is efficient (***area of triangle BCE***) $----------[50 points].
5. What is the efficient wage rate in this market ($/hour)?----------[50 points].
6. What is the efficient employment level in this market (# of workers)? ----------[50 points].
7. The government intervened in this market as shown by the line FXY. What do economists call this intervention? ----------[50 points].
8. Who gained or lost in this government intervention in the market? ----------
a. ----------[8.33 points].
b. ----------[8.33 points].
c. ----------[8.33 points].
d. ----------[8.33 points].
e. ----------[8.33 points].
f. ----------[8.33 points].
9. How many workers lost their jobs due to the government intervention in the market? ----------[50 points]?
10. What are the primary economic effects of government intervention in this market? ----------
a. ----------[7.14 points].
b. ----------[7.14 points].
c. ----------[7.14 points].
d. ----------[7.14 points].
e. ----------[7.14 points].
f. ----------[7.14 points].
g. ----------[7.14 points].
11. The **rectangle FPTX** is the maximum amount of resources lost in the search for jobs in this market due to government intervention. Compute this loss ($) ----------[50 points].
12. The **triangle ETX** is the **dead weight loss (DWL)** in this market due to government intervention. Compute this loss ($)----------[50 points].
13. Identify the key elements of inefficiency caused by government intervention in this market----------
a. ----------[6.25 points].
b. ----------[6.25 points].
c. ----------[6.25 points].
d. ----------[6.25 points].
e. ----------[6.25 points].
f. ----------[6.25 points].
g. ----------[6.25 points].
h. ----------[6.25 points].
14. Compute the percentage change in consumer surplus before and after government intervention---------- [25 points].
15. Compute the percentage change in producer surplus before and after government intervention---------- [25 points].

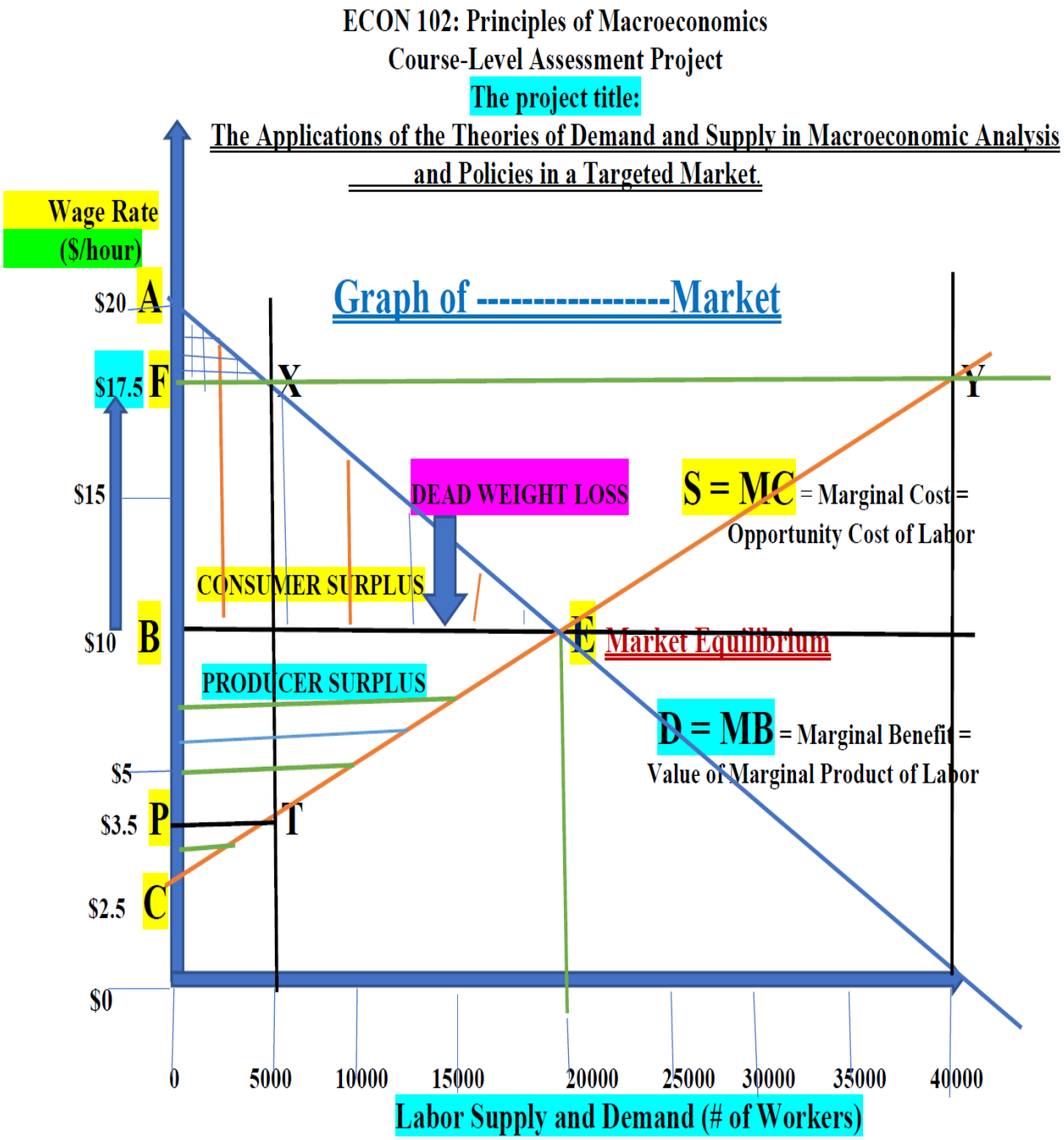
Sub-total [questions 1-15] ----------[800 points].

Reflection on the Signature Assignment: ----------[200 points].
Total points attainable in the assignment assessment----------[1000 points].

What benchmarks and/or controls were established?

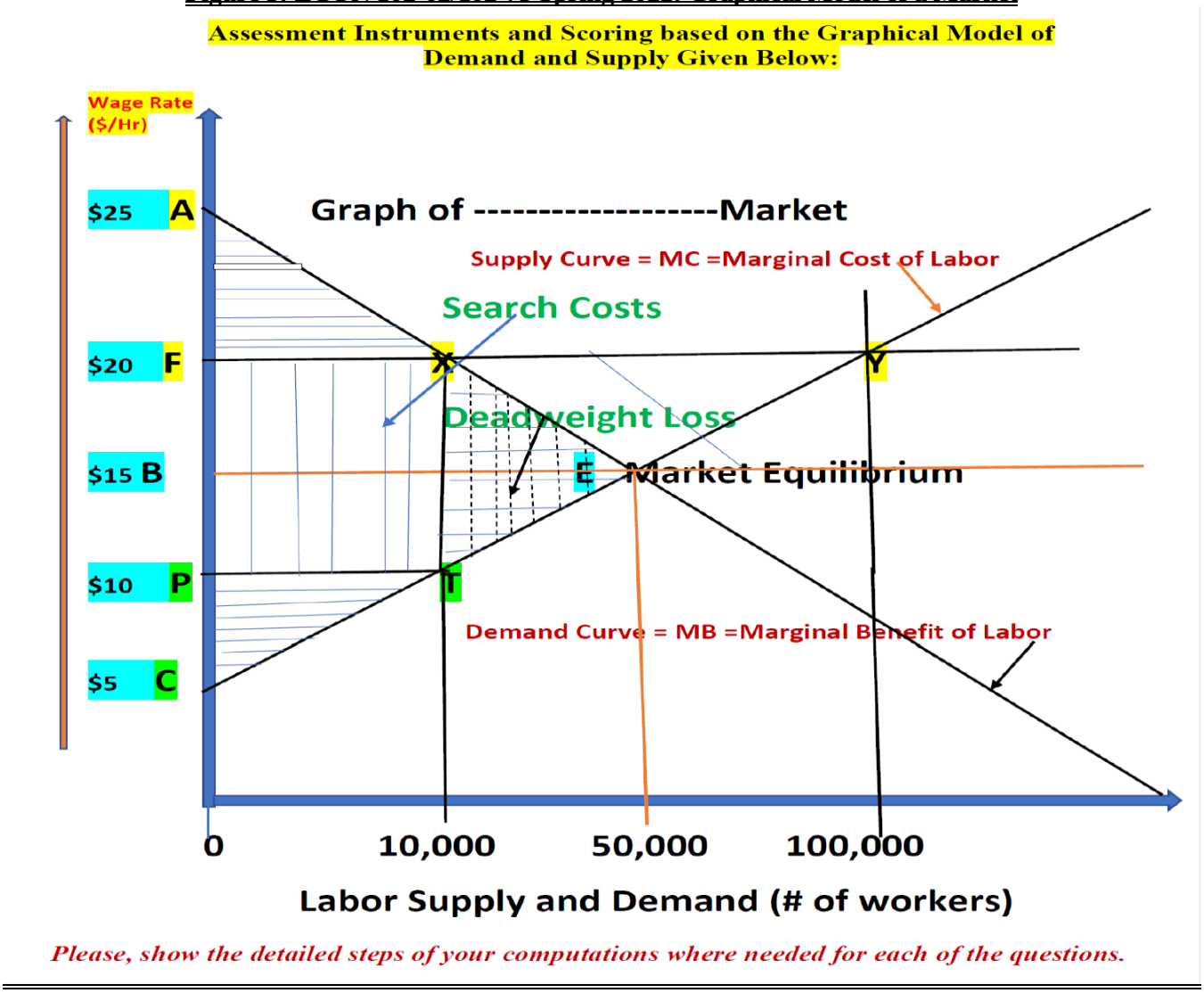
Proficiency is achieved when a student attains 70% out of the maximum points in a specific test question as well as the overall assessment project. Each of the questions targets a specific economic policy and/or government regulation. Question 1 tests the ability of the students to identify the markets being analyzed, while question 2 involves knowledge of the indicators necessary for an efficient market. Maximum levels of gains attainable by both producers and consumers in any market without government policy intervention or regulation is derived from questions 3 and 4, while questions 5 and 6 give the optimal price and quantity levels for the occurrence of equilibrium in the targeted market.

Figure 2: ECON 102-01/102-02 -Fall 2021: Graphical Model of a Market



To determine the specific types of government intervention in the targeted market we utilize question 7. In the post-intervention regime, questions 8-14 probe the effects of government policy regulations through the determination and computations of the levels of gains or losses for all the participating economic entities in the market including producers, consumers, business firms, the government, and the society *writ large*. To test the metacognitive levels of the students from the course and signature assignment, a reflection paper is assessed as part of the project. ***There were no unexpected challenges in the implementation of the assessment***. The assessment instrument was externally reviewed and validated through reviews of similar scholarly works in the field of assessment.

Figure 3: ECON 102-02/102-75 Spring 2022: Graphical Model of a Market



Step 4. Analyze

Explain the data that was collected and how the data was analyzed. To what degree did students meet the established benchmarks? Consider intention of learning activity and assessment as compared to results.

The level of proficiency in a course objective is attained if the student scores 70% or above in a specific test question. The maximum score for the overall assessment is 1000 points. The scores in the courses are shown in tables 2 and 3.

The assessment instruments and scoring for ECON 102-01 is shown in the table 2 for the Fall of 2021 and Spring of 2022. The table shows the questions, the objectives being assessed and the associated general education goals to which they are aligned. Revealed also are the percentage levels of proficiency attained in each level of assessment and the overall achievement level for the course as a whole. The proficiency levels increased by about 15.8% in this period. A major reason adduced to this positive change may be the transition from synchronous online to regular classroom instructions.

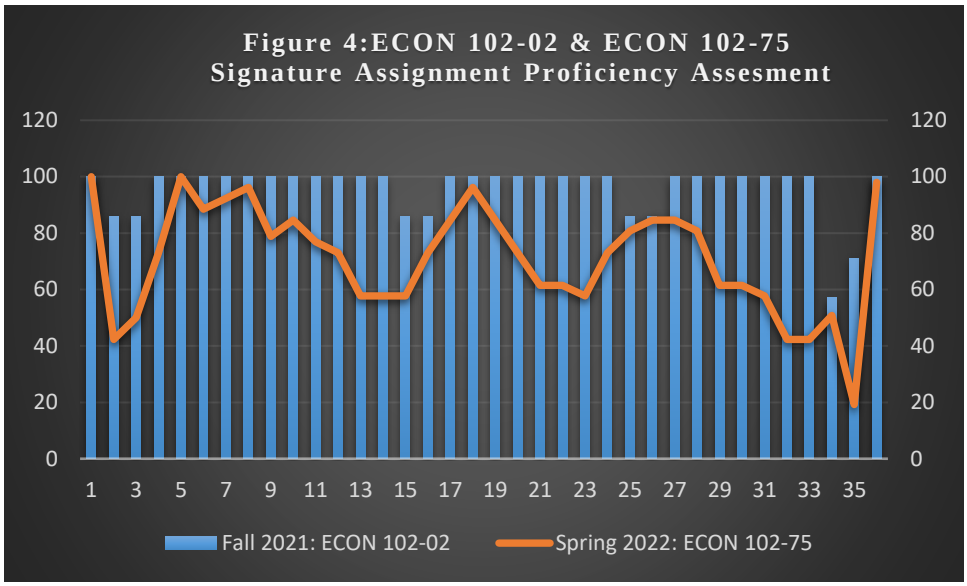
Table 2: ECON 102-01: The Assessment Instruments and Scoring

S/No.	Questions	Objective(s) Assessed	GED Goal # Aligned	Obj.Met[Yes] [% of Enroll.]	Obj.Met[Yes] [% of Enroll.]	% Change
				Fall 2021: ECON 102-01	Spring 2022: ECON 102-01	
1	Q1	1	1,3&4	100	100	**0.00**
2	Q2i	3	1,3,4&5	90	95.2	**5.78**
3	Q2ii	3	1,3,4&5	81	95.2	**17.53**
4	Q2iii	3	1,3,4&5	90.5	95.2	**5.19**
5	Q3	1,2&3	1,3,4&5	90	98.1	**9.00**
6	Q4	1,2&3	1,3,4&5	90	98.1	**9.00**
7	Q5	1,2&3	1,3,4&5	90	95.2	**5.78**
8	Q6	1,2&3	1,3,4&5	95	95.2	**0.21**
9	Q7	1,2&3	1,3,4&5	100	100	**0.00**
10	Q8a	1&2	1,3&4	86	97	**12.79**
11	Q8b	1&2	1,3&4	86	95.2	**10.70**
12	Q8c	1&2	1,3&4	86	100	**16.28**
13	Q8d	1&2	1,3&4	86	100	**16.28**
14	Q8e	1&2	1,3&4	71	95.2	**34.08**
15	Q8f	1&2	1,3&4	48	95.2	**98.33**
16	Q9	1&2	1,3&4	90	95.2	**5.78**
17	Q10a	1&2	1,3&4	95.2	95.2	**0.00**
18	Q10b	1&2	1,3&4	85.7	100	**16.69**
19	Q10c	1&2	1,3&4	90.5	100	**10.50**
20	Q10d	1&2	1,3&4	90.5	100	**10.50**
21	Q10e	1&2	1,3&4	85.7	100	**16.69**
22	Q10f	1&2	1,3&4	67	100	**49.25**
23	Q10g	1&2	1,3&4	52.4	100	**90.84**
24	Q11	3	1,3,4&5	95	100	**5.26**
25	Q12	3	1,3,4&5	76	97.1	**27.76**
26	Q13a	2 & 3	1,3,4&5	85.7	100	**16.69**
27	Q13b	2 & 3	1,3,4&5	90.5	100	**10.50**
28	Q13c	2 & 3	1,3,4&5	90.5	100	**10.50**
29	Q13d	2 & 3	1,3,4&5	90.5	100	**10.50**
30	Q13e	2 & 3	1,3,4&5	90.5	100	**10.50**
31	Q13f	2 & 3	1,3,4&5	76	100	**31.58**
32	Q13g	2 & 3	1,3,4&5	71.4	100	**40.06**
33	Q13h	2 & 3	1,3,4&5	57.1	100	**75.13**
34	Q14	1 & 3	1,3,4&5	50	90.5	**81.00**
35	Q15	1 & 3	1,3,4&5	33	95.2	**188.48**
36	**Ref.**	1 & 2	1,3,4&5	100	95.2	**-4.80**
Enroll #				**21**	**21**	
AVG. (%)				**82.02%**	**97.80%**	**15.78%**

Compared to ECON 102-01 in table 2, ECON 102-02 and ECON 102-75 reveal a marked difference in achievement between the face-to-face and the asynchronous online versions. There was a 26% decline in achievement in the online format. This is presented in figure 4. This result may be a pointer to the probable benefits of regular classroom instructions compared to the online versions especially of the asynchronous nature.

Table 3: ECON 102-02/102-75: The Assessment Instruments and Scoring

S/No.	Questions	Objective(s) Assessed	GED Goal Aligned	Obj.Met[Yes] [% of Enroll.]	Obj.Met[Yes] [% of Enroll.]	% Change
				Fall 2021: ECON 102-02	Spring 2022: ECON 102-75	
1	Q1	1	1,3&4	100	100	0
2	Q2i	3	1,3,4&5	86	42.3	-50.81
3	Q2ii	3	1,3,4&5	86	50	-41.86
4	Q2iii	3	1,3,4&5	100	73.1	-26.9
5	Q3	1,2&3	1,3,4&5	100	100	0
6	Q4	1,2&3	1,3,4&5	100	88.5	-11.5
7	Q5	1,2&3	1,3,4&5	100	92.3	-7.7
8	Q6	1,2&3	1,3,4&5	100	96.2	-3.8
9	Q7	1,2&3	1,3,4&5	100	78.8	-21.2
10	Q8a	1&2	1,3&4	100	84.6	-15.4
11	Q8b	1&2	1,3&4	100	76.9	-23.1
12	Q8c	1&2	1,3&4	100	73.1	-26.9
13	Q8d	1&2	1,3&4	100	57.7	-42.3
14	Q8e	1&2	1,3&4	100	57.7	-42.3
15	Q8f	1&2	1,3&4	86	57.7	-32.91
16	Q9	1&2	1,3&4	86	73.1	-15
17	Q10a	1&2	1,3&4	100	84.6	-15.4
18	Q10b	1&2	1,3&4	100	96.2	-3.8
19	Q10c	1&2	1,3&4	100	84.6	-15.4
20	Q10d	1&2	1,3&4	100	73.1	-26.9
21	Q10e	1&2	1,3&4	100	61.5	-38.5
22	Q10f	1&2	1,3&4	100	61.5	-38.5
23	Q10g	1&2	1,3&4	100	57.7	-42.3
24	Q11	3	1,3,4&5	100	73.1	-26.9
25	Q12	3	1,3,4&5	86	80.8	-6.05
26	Q13a	2 & 3	1,3,4&5	86	84.6	-1.63
27	Q13b	2 & 3	1,3,4&5	100	84.6	-15.4
28	Q13c	2 & 3	1,3,4&5	100	80.8	-19.2
29	Q13d	2 & 3	1,3,4&5	100	61.5	-38.5
30	Q13e	2 & 3	1,3,4&5	100	61.5	-38.5
31	Q13f	2 & 3	1,3,4&5	100	57.7	-42.3
32	Q13g	2 & 3	1,3,4&5	100	42.3	-57.7
33	Q13h	2 & 3	1,3,4&5	100	42.3	-57.7
34	Q14	1 & 3	1,3,4&5	57	50.8	-10.88
35	Q15	1 & 3	1,3,4&5	71	19.2	-72.96
36	**Ref.**	1 & 2	1,3,4&5	100	98	-2
Enroll #				**7**	**26**	
AVG. (%)				**95.70%**	**70.00%**	**-25.7**



Step 5. Modify/Maintain

Based on analysis of data, describe changes made to the course and/or course materials. Summarize the results of implementing changes, re-administering the assessment, and collecting and analyzing new data.

The course should be modified to include general education goal #2:

2. ***Apply quantitative and scientific reasoning skills relevant to a field of study.***

Final Results and Recommendations

Proficiency is achieved when a student attains 70% out of the maximum points in a specific test question as well as the overall assessment project.
reveal a marked difference in achievement between the face-to-face and the asynchronous online versions. There was a 26% decline in achievement in the online format.
The proficiency level ranged from 70% to 98% with an average of 86.5% for the 4 sections of the course assessed. Since each of the questions targets a specific economic policy and/or government regulation, the results showed that the students were able to interpret and apply the theories of demand and supply in macroeconomic analysis and government policy regulations in a targeted labor market to a reasonably high degree.

From this assessment it may be necessary to add another layer to the level of scoring/assessment of GED goals and course objectives. The assessment protocols may be reviewed to find ways to inculcate more rigorous and quantitative methods, where applicable, rather than a yes/no proficiency rating. This may reduce and/or eliminate some elements of subjectivity due to inter-rater reliability. Statistical modeling that may involve testing and sensitivity analyses of students' performances especially when confronted with exogeneous shocks such as the COVID-19 pandemic need to be explored. This may add value to rapid decision-making at the College level.

Supervisor Signature Sharon Brunner **Date** 5/26/2022

Please forward a copy of the signed report to the Associate Provost of Assessment and Institutional Research.