

UNIVERSITY OF ARKANSAS
PULASKI TECH

Assessment Report:
2020-2021:
MATH 1308
Business Calculus



1. Name of individual compiling report: Cynthia Fletcher

2. Date of submission: September 3, 2021

3. Is the assessment plan (**Check or highlight one**)

☐ an initial plan for the program

☐ a revision of an old plan

☒ unaltered from previous year

Course-Level Learning Outcomes-

1. What are the Course-Level Outcomes (CLOs)?

CLO #1: Students will calculate rates of change and limits; know the definition of a limit.

CLO #2: Students will calculate the derivative of a function using the definition, differentiation rules and formulas.

CLO #3: Students will recognize functions that are not differentiable.

CLO #4: Students will apply various techniques of integration. Evaluate indefinite and definite integrals using the various techniques of integration.

CLO #5: Students will use differentiation and integration techniques to solve problems in the management sciences and economics; use the calculator to solve these problems.

2. Which CLOs were addressed for this academic year? (2020-2021)

All Course Level Outcomes (except SLO 3) were assessed for academic year 2020 - 2021

3. Which CLOs are being addressed in your assessment plan next academic year? (2021-2022)

All Course Level Outcomes (Except SLO #3) will be assessed for academic year 2021 - 2022

4. Explain the assessment cycle.

Students in the course are given a common final exam at the conclusion of each semester to ensure mastery of the student learning outcomes for the course. The results are tabulated and a discussion occurs with the course level instructors to analyze the results. Decisions are made only after thorough discussions and validity of results analyzed in more than one semester to ensure consistency.

5. What are the assessment methods? Are they direct or indirect?

The assessment for this course is a direct measure using a common final exam for all sections and students in the course during each semester. The final exam is an online assessment given in an un-proctored environment to limit exposure and risk of COVID 19.

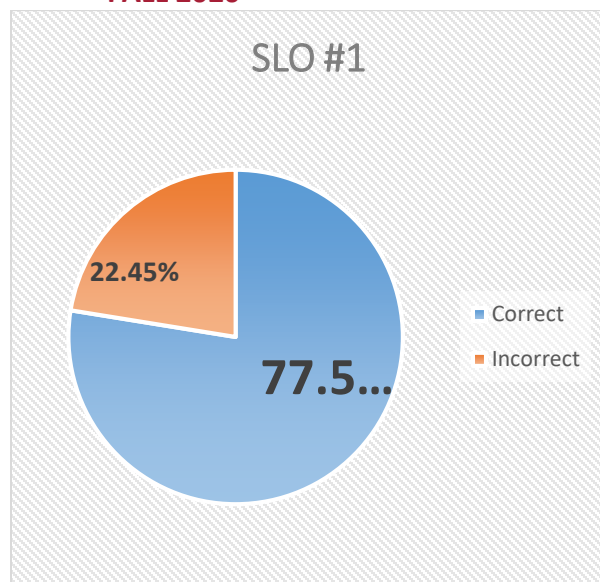
6. What are the assessment goal(s)?

To ensure mastery within the course, our goal is a 70% threshold for each student learning outcome.

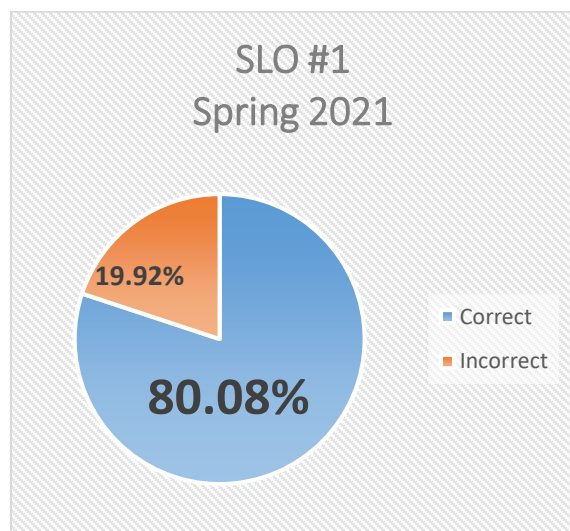
7. What were the findings for this academic year? (2020-2021)

CLO #1: Students will calculate rates of change and limits; know the definition of a limit.

FALL 2020



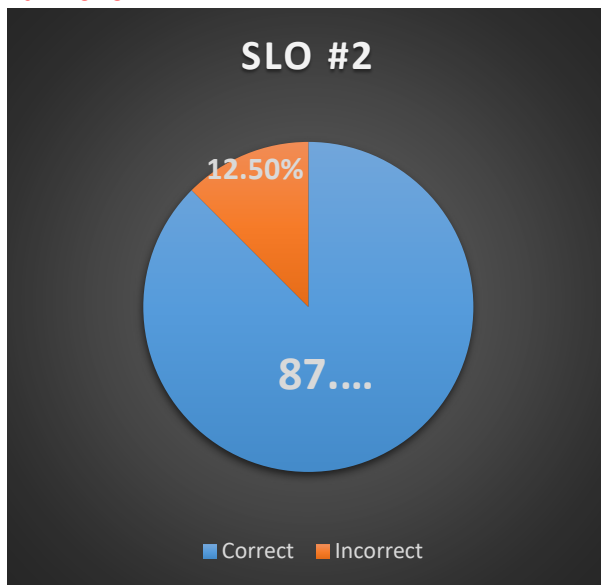
Fall 2020
77.5% Overall
80.5% Face to Face
75.8 % Online



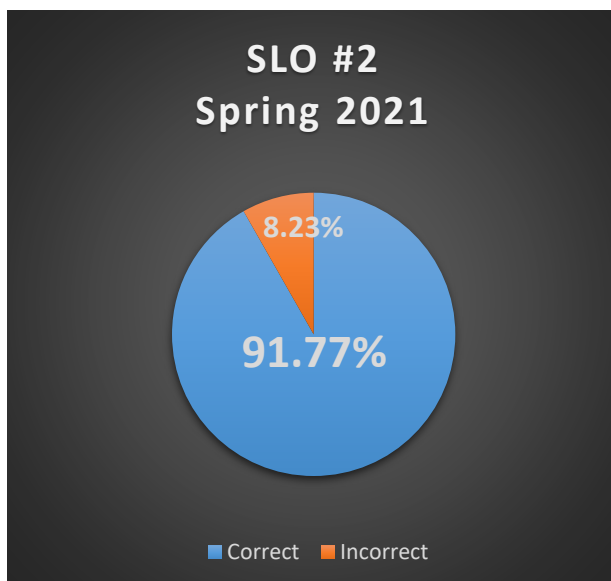
Spring 2021
Overall 80.08%
Face to Face 91.67%
Online 78.83%

SLO #2: Students will calculate the derivative of a function using the definition, differentiation rules and formulas.

Fall 2020



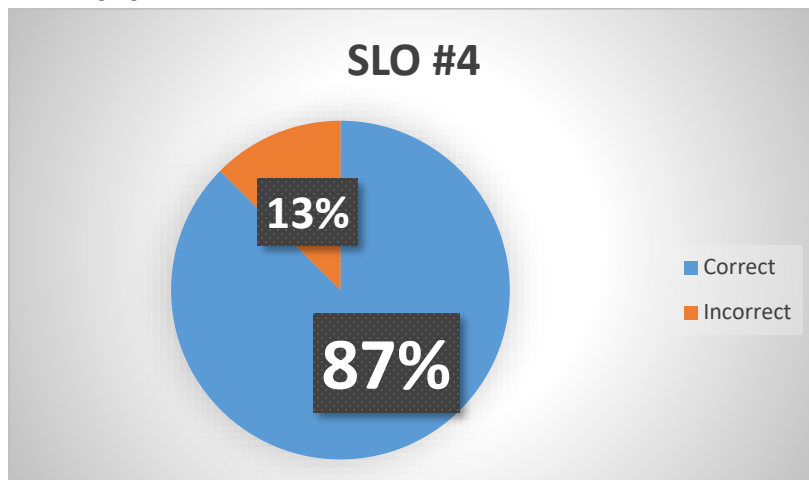
Fall 2020
All: 87.5%
Face to Face: 90.9%
Online: 85.4%



Spring 2021
Overall 91.77%
Face to Face 84.38%
Online 92.57%

CLO #4: Students will apply various techniques of integration. Evaluate indefinite and definite integrals using the various techniques of integration.

FALL 2020

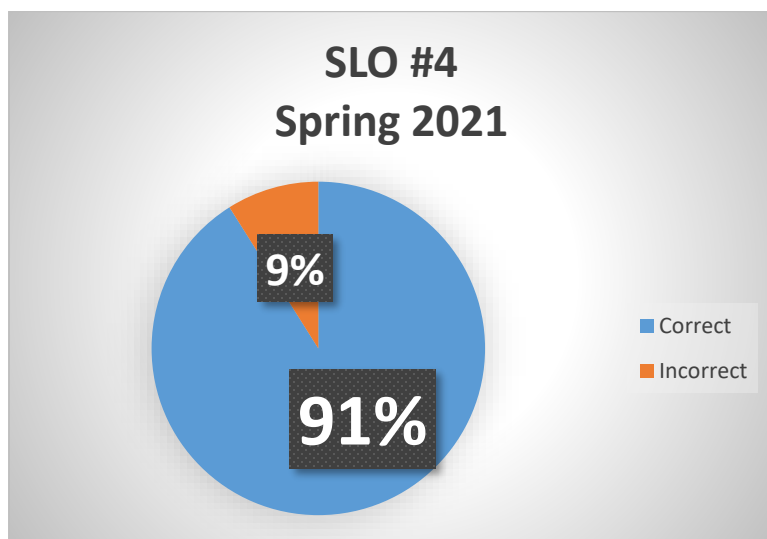


FALL 2020

87% Overall

92% Online

85% Face-to-Face



Spring 2021

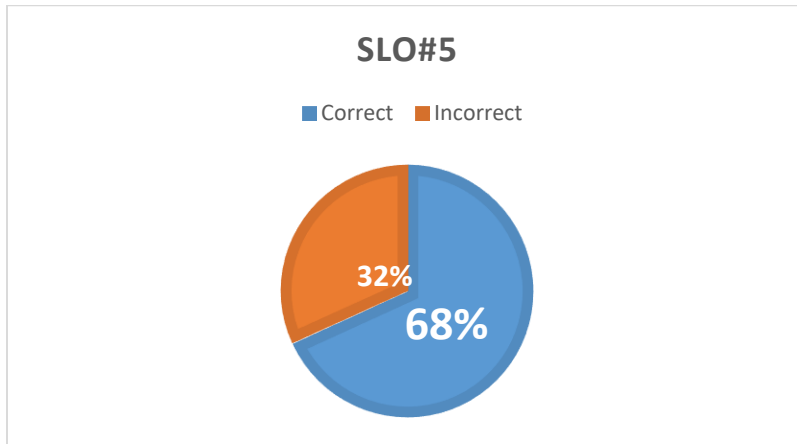
Overall 91.06%

Face to Face 79.17%

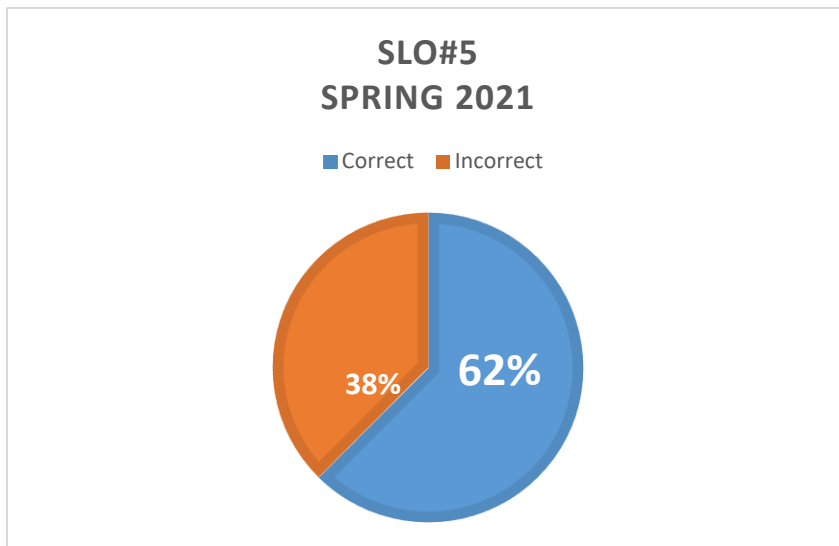
Online 92.34%

SLO #5: Students will use differentiation and integration techniques to solve problems in the management sciences and economics; use the calculator to solve these problems.

FALL 2020



FALL 2020
68%Overall
67%Online
70% Face to Face



Spring 2021
Overall 62.44%
Face to Face 55%
Online 63.24%

8. What is your analysis of the findings?

Our students are meeting the threshold of 70% on all SLO's assessed except SLO #5. Fall 2020 was the first semester where students were Hyflex and were able to choose their modality of instruction (date of attendance or online) all students took the final exam virtually due to COVID-19. The final exam was presented in the same modality of the course homework, quizzes, and exams where all of the questions were from the current textbook.

For our overall success and retention rates, for all modalities combined, Success was 61.04% and Retention was 86.42%. We had a total of 68 students enrolled in the fall 2020 and 63 students in Spring 2021. In comparison to Spring 2020 overall Success Rate was 65.57%, and 60.32% for Spring 2021. Fall of 2019 had an overall Success Rate of 53.21% and Fall 2020 had a success rate of 61.76%. We have significantly improved from Fall 2019 to Fall 2020, but still hovering around 60 – 62% success rate in the course.

9. What is the action plan for the next academic year? (2021-2022) Explain.

We will continue to administer our final exams virtually during the 2021 – 2022 academic year each semester. We will periodically meet virtually to discuss assessment results and continue teaching in the Hyflex environment where we are simultaneously teaching face to face and virtually. We do not know the future of the impact COVID-19 will have on classroom instruction. We have added a required participation grade of 10% to encourage students to attend class and participate in the class discussion which should improve student success in all courses. We will look at the SLO for the course to ensure we are meeting the needs of the course.