

UNIVERSITY OF ARKANSAS PULASKI TECH

Assessment Report: 2019-2020: MATH 1308 Business Calculus



Assessment Report



1. Name of individual compiling report:

Cynthia Fletcher

2. Date of submission:

Se	ptember	15,	2020

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

an initial plan for the program

] a revision of an old pla

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? (2019-2020)

All Course Level Outcomes were assessed for academic year 2019 - 2020

3. Which CLOs are being addressed in your assessment plan next academic year? (2020-2021)

All Course Level Outcomes were assessed for academic year 2019 - 2020

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 a paper/pencil assessment given in a proctored environment to ensure the integrity of the assessment.

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? (2019-2020) CLO #1: Students will calculate rates of change and limits; know the definition of a limit.





Fall 2019 78.85% Overall 82.50% Face to Face 72.32 % Online

Spring 2020 79.88% Overall 81.52% Face to Face 77.78 % Online



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





Fall 2019 All: 65.93% Face to Face: 69.71% Online: 59.18%

Spring 2020 92.33% Overall 91.30% Face to Face 93.65 % Online



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





FALL 2019 76.92% Overall 76% Face to Face 78.57% Online

Spring 2020 85% Overall 91% Face to Face 78 % Online





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



FALL 2019 73.3% Overall 67.14% Online 77% Face-to-Face

Spring 2020 91% Overall 88% Face to Face 94% Online





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 2019

76%Overall 71%Online 78% Face to Face

Spring 2020 70% Overall 78% Face to Face 60% Online





8. What is your analysis of the findings?

Our students are meeting the threshold of 70% on all CLO's. Spring 2020 was the first semester where all students took the final exam virtually due to COVID-19. The final exam was presented in the same modality of the remainder of the course where all of the question were from the current textbook. In Fall 2019, the paper pen version of the final exam was administered to all students and the questions were from an entirely different text. These circumstances are a contributing factor to the improvement in the successful results. Most of our outcomes were being met before the COVID-19 situation but drastically improved afterwards (except CLO 5). While we are happy to see such successful results, we are always striving to improve the Business Calculus course.

9. What is the action plan for the next academic year? (2020-2021) Explain.

We will continue to administer our final exams virtually during the Fall 2020 semester. We will continue to focus on the application problems in the text and offer more practice to students needing help. We will periodically meet virtually to discuss assessment results and continue training teaching in the Hyflex environment where we are simultaneously teaching face to face and virtually. We will continue to work on applications throughout the course to improve outcomes of all CLO in the upcoming year.