UNIVERSITY OF ARKANSAS
PULASKI TECH

Assessment Report:
2019-2020:
MATH 2301 Finite Mathematics

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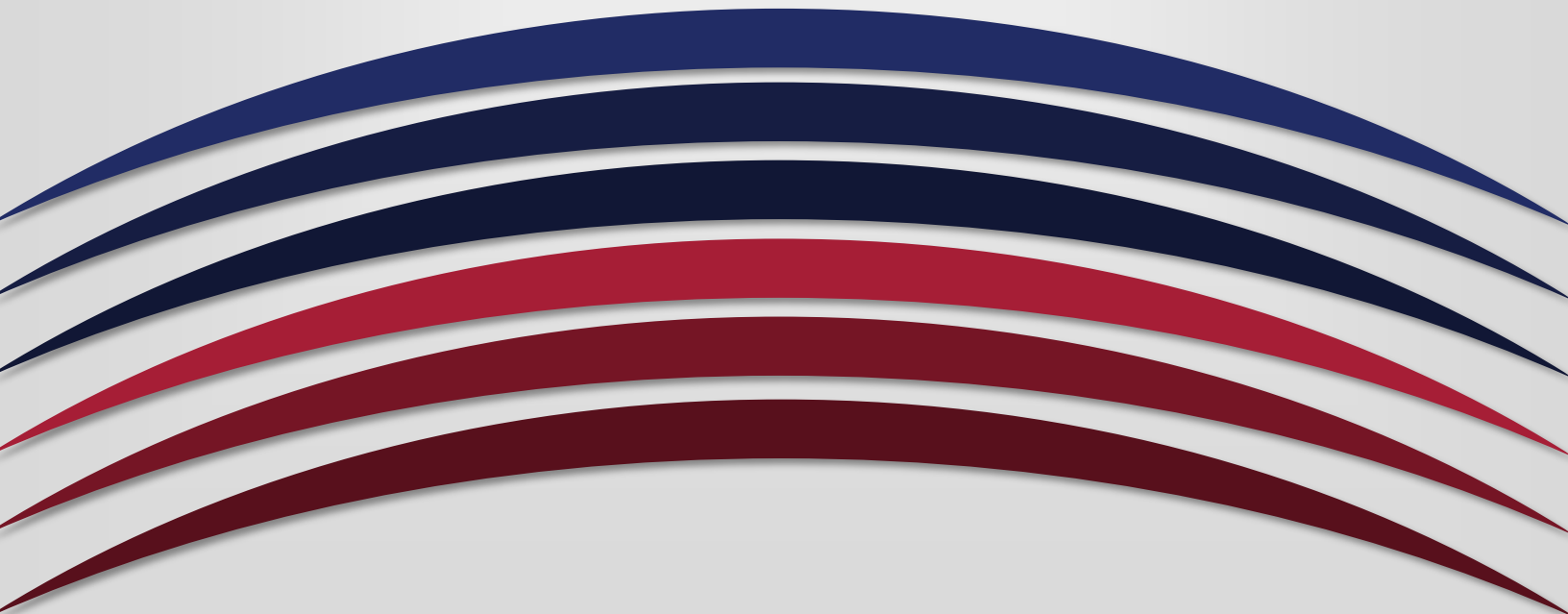
1. Name of individual compiling report: *Rachel Caruthers*

2. Date of submission: *September 28, 2020*

3. Is the assessment plan (<mark>*Check or highlight one*</mark>)

☐ 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)?

We use Student Learning Outcomes (SLOs).

SLO #1: Students will be able to perform matrix operations, matrix row reductions, find matrix inverses, and solve matrix equations.

SLO #2: Students will show understanding of simple logic techniques and set theory using Venn diagrams and counting principles.

SLO #3: Students will be able to demonstrate statistical understanding, including central tendency, dispersion, and normal curves, as well as calculate various probability, including Bayes', and be able to find expected values.

SLO #4: Students will be able to translate, interpret, optimize, and solve real-world financial scenarios using various methods, including linear systems, graphical and data analysis, simplex method, and game theory.

2. Which CLOs were addressed for this academic year? (2019-2020)

All Student Learning Outcomes were addressed during the academic year 2019 – 2020.

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

All Student Learning Outcomes will be addressed during the academic year 2020 – 2021.

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. This may be raised in future semesters once we have established a baseline for the course.

7. What were the findings for this academic year? (2019-2020)

Over the two courses given during the Summer 2020 term, it was found that all SLOs were over the 70% goal. In fact, all SLOs were over 75%, with an average of 79.56% overall.

8. What is your analysis of the findings?

This is a significant increase of almost 15% from last year's findings. However, due to a clerical error, the last 1/4th of one course's final exam was lost in Summer 2019. This makes true averages impossible to obtain or analyze. Yet, this year's findings were correctly documented; meaning that future analysis can be reliable.

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

This course was part of a redesign of the pathway's initiative implemented within the department in the fall of 2018. At this time, we will continue to use the same assessment plan for the 2020 – 2021 academic year so that we have two years of true assessment findings to analyze.

With such true results available, we will be able to begin to analyze more accurately other possibilities, including comparisons of online and face-to-face as well as differences in instruction due to time comparisons.