



UNIVERSITY OF ARKANSAS
PULASKI TECH

Course-Level Assessment Report

Course: MATH 2320

Introduction to

Probability and Statistics

Academic Year: 2020-2021



1. Name of course: MATH 2320 Introduction to Probability and Statistics
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Course-Level Learning Outcomes

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

SLO 1 – Descriptive Statistics: Students will demonstrate a basic understanding of the application of collection and use of data for analysis, design of experiment, use of computers, calculators, and/or software for statistical analysis, relationship between sample and population

SLO 2 – Probability: Students will demonstrate a basic understanding of the application and use of computers, calculators, and/or software for statistical analysis, use of distribution tables, including solving problems by using them, basic principles of probability

SLO 3 – Inferential Statistics: Students will demonstrate a basic understanding of the application of correlation of Analysis, analysis of inference, linear regression, use of computers, calculators, and/or software for statistical analysis, performing hypothesis test involving means, proportions, standard deviations, and variances, confidence intervals

2. Which CLOs were addressed for the academic year?

All 3 of them were addressed.

3. Which CLOs are being addressed in your assessment plan in the upcoming academic year?

All 3 of them will be addressed

4. Explain the assessment cycle.

Our assessment cycle is to administer a comprehensive final to all students at the end of the semester. Questions from the final exam are aligned with the CLOs. Instructors for the course then evaluate the results and make adjustments to the course according to our findings. We analyze the data for all students combined, as well as data for student success by instructor, by section, and by modality.

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

We use direct assessment, using a two-hour comprehensive final exam. Students complete the final exam in MyMathLab.

The final exam is usually made by the Lead Instructor or another Statistics instructor, and then sent to all Statistics instructors for their approval or suggestions.

6. What are the assessment goal(s), including benchmarks?

Our assessment goal is a 70% threshold met for each learning outcome.

7. What were the findings for the academic year?

Fall 2020 – SLO 1 – 85.02%

SLO 2 – 80.40%

SLO 3 – 74.42%

Spring 2021 – SLO 1 – 82.51%

SLO 2 – 82.05%

SLO 3 – 71.77%

8. What is your analysis of the findings?

| | Fall 2020 | Spring 2021 | Combined |
|-------|-----------|-------------|----------|
| SLO 1 | 85.02% | 82.51% | 83.77% |
| SLO 2 | 80.40% | 82.05% | 81.23% |
| SLO 3 | 74.42% | 71.77% | 73.10% |

| | Fall 2019 | Spring 2020 | Combined |
|-------|-----------|-------------|----------|
| SLO 1 | 81.71% | 86.29% | 84.00% |
| SLO 2 | 73.85% | 81.19% | 77.52% |
| SLO 3 | 58.33% | 72.04% | 65.19% |

We are pretty pleased with the results from 2020 – 2021. We met our threshold on every SLO. When compared with the results from 2019 – 2020, we are holding steady with SLO 1, we are doing better on SLO 2, and much better on SLO 3. SLO 3 has been a problem for us in the past, but we have done things with the assessment of SLO 3, such as clearer wording on questions, and also eliminating questions we felt might be confusing and replacing them with better questions. Hopefully our results on SLO 3 will continue to improve.

9. What is the action plan for the upcoming academic year?

Explain.

Course level meetings will be held during the semesters. We try to focus on student learning during these meetings. We are doing well on SLO 1 and 2, but we may make more adjustments to SLO 3 assessment, and may make a new final exam for assessment purposes on all SLOs. These things will be decided in the course level meetings.