

# UNIVERSITY OF ARKANSAS PULASKI TECH

### Assessment Report: 2018-2019 Due to Chair/Program Director and Assessment Coordinator by September 4th

Assessment Report



MATH 2320 Introduction to Statistics and Probability

### Course-Level Learning Outcomes

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

Student Learning Outcomes (SLOs)

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: Inference - 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 this academic year? (2018-2019)

All Student Learning Outcomes were addressed during the academic year 2018 – 2019.

## 3. Which CLOs are being addressed in your assessment plan next academic year? (2019-2020)

All Student Learning Outcomes will be addressed in our assessment plan during the 2019 – 2020 academic year.

#### 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. Discussions with the Statistics instructors also occur periodically to ensure the course is meeting the needs of students within those disciplines as is the intention of the course. Assessment Report MATH 2320 Introduction to Statistics and Probability

## 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)?

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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? (2018-2019)

Fall 2018 SLO #1 Descriptive Statistics – 74.92% Success Rate SLO #2 Probability – 71.02% Success Rate SLO #3 Inference – 65.91% Success Rate

Spring 2019 SLO #1 Descriptive Statistics – 78.33% Success Rate SLO #2 Probability – 71.62% Success Rate SLO #3 Inference – 59.41% Success Rate

#### 8. What is your analysis of the findings?

The results show that students are well meeting the goal of 70% success on SLO #1, meeting the goal of 70% on SLO #2, and not meeting the goal of 70% on SLO #3.

## 9. What is the action plan for the next academic year? (2019-2020) Explain.

We will continue to monitor the student results of SLO #1 and SLO #2. In our course level meetings this fall we will have to address the results of SLO #3. We did that after failing to meet the goal of 70% in the fall semester, by rewording some questions that we felt might be confusing to students and removing two questions from the assessment we felt were confusing to the students which we could not find better replacements for. Since the results then for Spring 2019 were even worse, we must try to determine why our students are not doing as well on this SLO in our Fall 2019 course level meetings.