UNIVERSITY OF ARKANSAS
PULASKI TECH

Course-Level Assessment Report
Course: _MATH 2320
Academic Year: _2022

Due to Chair/Program Director and Faculty Assessment Chair by September 1

1. Name of course: Introduction to Probability and Statistics

2. Name of individual(s) compiling report: Susan James

3. Date of submission: 5/19/2022

4. Academic year: 2021-2022

Course-Level Learning Outcomes

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

CLO 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

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

CLO 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 the academic year?

All of them.

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

All of them.

4. How does this report connect or map to program-level or institutional-level outcomes?

These CLOs map to ILO 5 which states:

Use Quantitative methods to solve problems. (Quantitative Reasoning)

This may include the ability to :

- Analyze and interpret quantitative information.
- Apply quantitative concepts and skills to real world problems.

For each Course Level Outcome assessed this academic year, please complete the chart below, providing the assessment data for both fall and spring, and then a total for the academic year.

CLO 1 – Descriptive Statistics

Assessment Methods- How did you assess student learning (define direct assessment methods used) in relation to the course level outcome being reported?	Students across all sections completed a common comprehensive final exam. Questions were linked to specific course learning outcomes. Item analysis was performed to determine proficiency.	
Were indirect assessment methods also used to assess students? If 'yes', please describe the method used.		**No**
How do you define success for an individual student on the CLO assessment assignment or measure?	Student scores 70% on the questions linked to the CLO.	
How do you define success for the course level outcome? What is the benchmark for the Course Level Outcome?	70% of students in the course achieve success on the CLO assessment assignment or measure.	
How many students completed the assessment, and how many were successful?	**Fall** 120 students assessed 98 successful (81.18% success rate)	**Spring** 102 students assessed 79 successful (77.04% success rate)
Academic Year Total (add the numbers from Fall and Spring)	222 students assessed 177 successful (79.73% success rate)	
Was the benchmark/goal for this academic year met?	**Yes**	
Were standardized rubrics, tests, or checklists used?	**Yes**	

CLO 2 – Probability

Assessment Methods- How did you assess student learning (define direct assessment methods used) in relation to the course level outcome being reported?	Students across all sections completed a common comprehensive final exam. Questions were linked to specific course learning outcomes. Item analysis was performed to determine proficiency.	
Were indirect assessment methods also used to assess students? If 'yes', please describe the method used.		**No**
How do you define success for an individual student on the CLO assessment assignment or measure?	Student scores 70% on the questions linked to the CLO.	
How do you define success for the course level outcome? What is the benchmark for the Course Level Outcome?	70% of students in the course achieve success on the CLO assessment assignment or measure.	
How many students completed the assessment, and how many were successful?	**Fall** 120 students assessed 96 successful (79.87% success rate)	**Spring** 102 students assessed 78 successful (76.17% success rate)
Academic Year Total (add the numbers from Fall and Spring)	222 students assessed 174 successful (78.38% success rate)	
Was the benchmark/goal for this academic year met?	**Yes**	
Were standardized rubrics, tests, or checklists used?	**Yes**	

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CLO 3 – Inference

Assessment Methods- How did you assess student learning (define direct assessment methods used) in relation to the course level outcome being reported?	Students across all sections completed a common comprehensive final exam. Questions were linked to specific course learning outcomes. Item analysis was performed to determine proficiency.	
Were indirect assessment methods also used to assess students? If 'yes', please describe the method used.		**No**
How do you define success for an individual student on the CLO assessment assignment or measure?	Student scores 70% on the questions linked to the CLO.	
How do you define success for the course level outcome? What is the benchmark for the Course Level Outcome?	70% of students in the course achieve success on the CLO assessment assignment or measure.	
How many students completed the assessment, and how many were successful?	**Fall** 120 students assessed 83 successful (69.28% success rate)	**Spring** 102 students assessed 70 successful (68.50% success rate)
Academic Year Total (add the numbers from Fall and Spring)	222 students assessed 153 successful (68.92% success rate)	
Was the benchmark/goal for this academic year met?		**No**
Were standardized rubrics, tests, or checklists used?	**Yes**	

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5. What is your analysis of the findings?

For CLO 1 – Descriptive Statistics. Both semesters show a pass rate of over 70% for all methods of course delivery. Our goals were met for this learning objective.

For CLO 2 – Probability. Both semesters show a pass rate of over 70% for all methods of course delivery. Our goals were met for this learning objective.

For CLO 3 – Inference. Both semesters did not quite meet our 70% threshold. This CLO is a recurring problem for us to get above 70%.

6. What is the action plan for the upcoming academic year? Explain.

For CLO 1 – Descriptive Statistics. Continue to monitor. Instructors will meet at the end of the fall semester to review results and data will be examined across modalities to determine any necessary changes for spring. Instructors will meet again after the spring semester ends to identify trends and consider adjustments for the next academic year.

For CLO 2 – Probability. Continue to monitor. Instructors will meet at the end of the fall semester to review results and data will be examined across modalities to determine any necessary changes for spring. Instructors will meet again after the spring semester ends to identify trends and consider adjustments for the next academic year.

For CLO 3 – Inference. We are making a new final exam for the Fall 2022 semester. Hopefully with more understandable questions, we will have better results on this CLO. Inference can be tricky, especially hypotheses testing. We want the students to easily understand the questions so they can correctly answer them. Instructors will meet at the end of the fall semester to review results and data will be examined across modalities to determine any necessary changes for spring. Instructors will meet again after the spring semester ends to identify trends and consider adjustments for the next academic year.

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