

Catalog Description: An introduction to statistical methods, including descriptive statistics, probability distributions, sampling distributions, estimation, hypothesis testing, linear regression, correlation, and analysis of variance.

Course Objectives: A student will learn how to collect, analyze, and interpret data.

1. Learn how to collect, analyze, and interpret data.
2. Solve problems involving probability distributions.
3. Estimate parameters using normal distributions.
4. Perform simple hypothesis tests on numerical data using t-tests.
5. Perform simple linear regression analysis.

Learning Outcomes and Performance Criteria

1. Learn how to collect, analyze, and interpret data.
 - (a) Define a population and sample.
 - (b) Calculate sample size and mean.
 - (c) Define bias and variance.
 - (d) Explain the difference between a parameter and a statistic.
2. Solve problems involving probability distributions.
 - (a) Calculate probabilities for discrete random variables.
 - (b) Calculate probabilities for continuous random variables.

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