Applied Probability and Statistics is designed to help students develop competence in the fundamental concepts of basic statistics including: introductory algebra and graphing; descriptive statistics; regression and correlation; and probability. Statistical data and probability are often used in business and information technology (IT) to make informed decisions about the validity of studies and the effect of data on decisions. This course discusses what constitutes sound research design and how to appropriately model phenomena using statistical data. Additionally, the content covers simple probability calculations, based on events that occur in the business and IT industries. No prerequisites are required for this course.

**Competencies**

- **Fractions, Decimals, and Percentages**
  The graduate applies the operations, processes, and procedures of fractions, decimals, and percentages to evaluate quantitative expressions.

- **Basic Algebra**
  The graduate applies the operations, processes, and procedures of basic algebra to evaluate quantitative expressions, and to solve equations and inequalities.

- **Descriptive Statistics for a Single Variable**
  The graduate evaluates categorical and quantitative data pertaining to a single variable using appropriate graphical displays and numerical measures.

- **Descriptive Statistics for Two Variables**
  The graduate evaluates the relationship between two variables through interpretation of visual displays and numerical measures.

- **Correlation and Regression**
  The graduate evaluates the relationship between two quantitative variables through correlation and regression.

- **Probability**
  The graduate applies principles and methods of probability-based mathematics to explain and solve problems.

**Getting Started**

Welcome to Applied Probability and Statistics! The course instructors recommend that you follow these steps:

1. View or download the pacing guide (under Course Information) for the recommended order and timeline of how to approach completion of this course.
2. If you have background knowledge in the course, begin by taking the pre-assessment, which will provide you with a Coaching Report and help you determine those topics where you have more to learn, and where to complete this work in the MindEdge learning resource.
3. Click the “Go to Course Material” button to access MindEdge, which is the learning resource that will provide you with all of the learning materials you need to master the concepts in this course.
4. At the end of each module, take the practice tests and the adaptive review test to assess whether you have mastered the material.

Competency will be demonstrated by the successful completion of an objective assessment. When you are ready, take the pre-assessment. If additional practice is needed the Coaching Report will help identify those topics where you have more to learn.

In addition to these course resources, course instructors are also available to answer questions and discuss statistics concepts.
A score of Competent or Exemplary is required to pass all assessments. Passing a preassessment does not guarantee you will pass the high-stakes assessment.

On objective assessments, you will be charged a retake fee for the third attempt and every attempt thereafter. For more information click here.

Course Information

Pacing Guide

Course Instructor

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