Probability and Statistics provides a curriculum focused on understanding key data analysis and probabilistic concepts, calculations, and relevance to real-world applications. Students are challenged to work toward mastery of computational skills, apply calculators and other technology in data analysis, deepen their understanding of key ideas and solution strategies, and extend their knowledge through a variety of problem-solving applications.

Course topics include types of data, common methods used to collect data, and representations of data, including histograms, bar graphs, box plots, and scatterplots. Students learn to work with data by analyzing and employing methods of extending results, involving samples and populations, distributions, summary statistics, experimental design, regression analysis, simulations, and confidence intervals.

Ideas involving probability — including sample space, empirical and theoretical probability, expected value, and independent and compound events — are covered as students explore the relationship between probability and data analysis.

Extended projects allow for more open-ended, extended applications of concepts and skills. Students collect and analyze statistical data about a topic that interests them, and they apply probability concepts in a real-world context.

The content is based on the Common Core standards and is aligned with state standards

Length: Two Semesters

UNIT 1: INTRODUCTION TO STATISTICS

LESSON 1: WHAT IS STATISTICS?

Study: What Is Statistics?
Learn reasons for studying statistics, how statistics is used, and the differences between sample data and population parameters.
Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems
Complete a set of practice problems to check your understanding of the lesson.
Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: What Is Statistics?
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 30 mins Scoring: 20 points

LESSON 2: COLLECTING DATA

Study: Collecting Data
Learn about different sampling methods, biases in sampling, and how sampling methods and biases can affect conclusions drawn from studies.
Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems
Complete a set of practice problems to check your understanding of the lesson.
Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Collecting Data
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 30 mins Scoring: 20 points

LESSON 3: RANDOM SAMPLING

Study: Random Sampling

Learn about different sampling methods, biases in sampling, and how sampling methods and biases can affect conclusions drawn from studies.

Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems

Complete a set of practice problems to check your understanding of the lesson.

Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Random Sampling

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 30 mins Scoring: 20 points

LESSON 4: EXPERIMENTAL DESIGN

Study: Experimental Design

Learn about experimental design, including but not limited to treatments, randomization, techniques to address extraneous factors, and appropriate conclusions.

Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems

Complete a set of practice problems to check your understanding of the lesson.

Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Experimental Design

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 30 mins Scoring: 20 points

Discuss: Applying Experimental Design Concepts to Real-World Studies

Participate in a three- to five-question discussion to practice methods learned in this unit.

Duration: 0 hrs 20 mins Scoring: 30 points

LESSON 5: INTRODUCTION TO STATISTICS WRAP-UP

Practice: Assignment

Submit your work for a set of 20 practice problems.

Duration: 0 hrs 40 mins Scoring: 20 points

Review: Introduction to Statistics

Prepare for the unit test by reviewing key concepts and skills.

Duration: 0 hrs 30 mins Scoring: 0 points

Test (CS): Introduction to Statistics

Take a computer-scored test to assess what you have learned in this unit.

Duration: 0 hrs 45 mins Scoring: 50 points

Test (TS): Introduction to Statistics

Take a teacher-scored test to assess what you have learned in this unit.

Duration: 0 hrs 45 mins Scoring: 50 points

UNIT 2: DESCRIBING DATA GRAPHICALLY

LESSON 1: CATEGORICAL DATA

Study: Categorical Data

Learn how to construct and interpret bar charts, pie graphs, and comparative bar charts.

Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems

Complete a set of practice problems to check your understanding of the lesson.

Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Categorical Data

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 30 mins Scoring: 20 points

LESSON 2: NUMERICAL DATA

Study: Numerical Data

Learn how to construct and interpret stem-and-leaf plots, histograms, and dot plots along with comparative stem-and-leaf and dot plots.

Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems

Complete a set of practice problems to check your understanding of the lesson.

Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Numerical Data

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 30 mins Scoring: 20 points

LESSON 3: TWO-WAY FREQUENCY TABLES

Study: Two-Way Frequency Tables

Learn how to build and use two-way frequency tables and two-way relative frequency tables. Understand how to find and use joint frequencies and marginal frequencies, and how to calculate conditional relative probabilities from a two-way table. Use two-way tables to recognize associations in data.

Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems

Complete a set of practice problems to check your understanding of the lesson.

Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Two-Way Frequency Tables

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 30 mins Scoring: 20 points

LESSON 4: DESCRIBING DATA GRAPHICALLY WRAP-UP

Practice: Assignment

Submit your work for a set of 20 practice problems.

Duration: 0 hrs 40 mins Scoring: 20 points

Review: Describing Data Graphically

Prepare for the unit test by reviewing key concepts and skills.

Duration: 0 hrs 30 mins Scoring: 0 points

Test (CS): Describing Data Graphically

Take a computer-scored test to assess what you have learned in this unit.

Duration: 0 hrs 45 mins Scoring: 50 points

Test (TS): Describing Data Graphically

Take a teacher-scored test to assess what you have learned in this unit.

Duration: 0 hrs 45 mins Scoring: 50 points

UNIT 3: MEASURES OF CENTER AND SPREAD

LESSON 1: MEASURES OF CENTER

Study: Measures of Center

Learn how to calculate and interpret measures of center, such as mean, median, and mode.

Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems

Complete a set of practice problems to check your understanding of the lesson.

Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Measures of Center

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 30 mins Scoring: 20 points

LESSON 2: MEASURES OF SPREAD

Study: Measures of Spread

Learn how to calculate and interpret variance, standard deviation, range, interquartile range, and outliers.

Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems

Complete a set of practice problems to check your understanding of the lesson.

Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Measures of Spread

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 30 mins Scoring: 20 points

LESSON 3: BOX PLOTS

Study: Box Plots

Learn how to calculate and interpret box plots, comparative box plots, and modified box plots.

Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems

Complete a set of practice problems to check your understanding of the lesson.

Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Box Plots

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 30 mins Scoring: 20 points

LESSON 4: PROJECT

Project: Project

Use your knowledge, skills, and resources to make sense of and persevere in solving a real-world problem.

Duration: 2 hrs Scoring: 50 points

LESSON 5: MEASURES OF CENTER AND SPREAD WRAP-UP

Practice: Assignment

Submit your work for a set of 20 practice problems.

Duration: 0 hrs 40 mins Scoring: 20 points

Review: Measures of Center and Spread

Prepare for the unit test by reviewing key concepts and skills.

Duration: 0 hrs 30 mins Scoring: 0 points

Test (CS): Measures of Center and Spread

Take a computer-scored test to assess what you have learned in this unit.

Duration: 0 hrs 45 mins Scoring: 50 points

Test (TS): Measures of Center and Spread

Take a teacher-scored test to assess what you have learned in this unit.

Duration: 0 hrs 45 mins Scoring: 50 points

UNIT 4: DESCRIBING DATA SETS

LESSON 1: DESCRIBING DISTRIBUTIONS

Study: Describing Distributions

Learn how to describe distributions using measures of center, shape, and spread for single and comparative data sets.

Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems
Complete a set of practice problems to check your understanding of the lesson.
Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Describing Distributions
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 30 mins Scoring: 20 points

Discuss: Displaying and Describing Real-World Data
Join a three- to five-question discussion to practice methods learned in this unit.
Duration: 0 hrs 20 mins Scoring: 30 points

LESSON 2: COMPARING DISTRIBUTIONS

Study: Comparing Distributions
Learn how to calculate the effects of transformations on the center, shape, and spread.
Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems
Complete a set of practice problems to check your understanding of the lesson.
Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Comparing Distributions
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 30 mins Scoring: 20 points

LESSON 3: TRANSFORMING UNIVARIATE DATA

Study: Transforming Univariate Data
Learn how to calculate the effects of transformations on the center, shape, and spread.
Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems
Complete a set of practice problems to check your understanding of the lesson.
Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Transforming Univariate Data
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 30 mins Scoring: 20 points

LESSON 4: DESCRIBING DATA SETS WRAP-UP

Practice: Assignment
Submit your work for a set of 20 practice problems.
Duration: 0 hrs 40 mins Scoring: 20 points

Review: Describing Data Sets
Prepare for the unit test by reviewing key concepts and skills.
Duration: 0 hrs 30 mins Scoring: 0 points

Test (CS): Describing Data Sets
Take a computer-scored test to assess what you have learned in this unit.
Duration: 0 hrs 45 mins Scoring: 50 points

Test (TS): Describing Data Sets
Take a teacher-scored test to assess what you have learned in this unit.
Duration: 0 hrs 45 mins Scoring: 50 points

UNIT 5: MODELING DATA

LESSON 1: LINEAR MODELS IN DATA

Study: Linear Models in Data

Create scatterplots for bivariate data and recognize positive and negative correlations. Use a calculator to find correlation coefficients, and understand what the result says about the strength of the correlation. Know that correlation does not imply causation.

Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems

Complete a set of practice problems to check your understanding of the lesson.

Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Linear Models in Data

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 30 mins Scoring: 20 points

LESSON 2: CORRELATION

Study: Correlation

Learn how to calculate and interpret Pearson's sample correlation coefficient.

Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems

Complete a set of practice problems to check your understanding of the lesson.

Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Correlation

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 30 mins Scoring: 20 points

LESSON 3: REGRESSION METHODS

Study: Regression Methods

Learn how to calculate a linear regression equation, interpret the slope and intercept in context, and identify influential points (compared to large residuals).

Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems

Complete a set of practice problems to check your understanding of the lesson.

Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Regression Methods

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 30 mins Scoring: 20 points

LESSON 4: ASSESSING DATA MODELS

Study: Assessing Data Models

Learn how to interpret correlation coefficients (r-values), coefficients of determination (r^2-values), and residual plots.

Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems

Complete a set of practice problems to check your understanding of the lesson.

Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Assessing Data Models

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 30 mins Scoring: 20 points

LESSON 5: NONLINEAR MODELS

Study: Nonlinear Models

Learn how to apply nonlinear regression.

Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems

Complete a set of practice problems to check your understanding of the lesson.
Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Nonlinear Models
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 30 mins Scoring: 20 points

Discuss: Nonlinear Models
Join a three- to five-question discussion to practice methods learned in this unit.
Duration: 0 hrs 20 mins Scoring: 30 points

LESSON 6: TRANSFORMING BIVARIATE DATA

Study: Transforming Bivariate Data
Learn how to transform data so that a linear regression equation can be used to model nonlinear relationships.
Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems
Complete a set of practice problems to check your understanding of the lesson.
Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Transforming Bivariate Data
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 30 mins Scoring: 20 points

Discuss: Transforming Real-World Bivariate Data
Join a three- to five-question discussion to practice methods learned in this unit.
Duration: 0 hrs 20 mins Scoring: 30 points

LESSON 7: MODELING DATA WRAP-UP

Practice: Assignment
Submit your work for a set of 20 practice problems.
Duration: 0 hrs 40 mins Scoring: 20 points

Review: Modeling Data
Prepare for the unit test by reviewing key concepts and skills.
Duration: 0 hrs 30 mins Scoring: 0 points

Test (CS): Modeling Data
Take a computer-scored test to assess what you have learned in this unit.
Duration: 0 hrs 45 mins Scoring: 50 points

Test (TS): Modeling Data
Take a teacher-scored test to assess what you have learned in this unit.
Duration: 0 hrs 45 mins Scoring: 50 points

UNIT 6: SEMESTER 1 REVIEW AND EXAM

LESSON 1: SEMESTER 1 REVIEW AND EXAM

Review: Wrap-Up and Review
Prepare for the course exam by reviewing key concepts covered in this course.
Duration: 1 hr Scoring: 0 points

Exam: Semester 1 Exam
Take a computer-scored exam to demonstrate your mastery of concepts and skills covered in this course.
Duration: 0 hrs 50 mins Scoring: 200 points

UNIT 7: INTRODUCTION TO PROBABILITY

LESSON 1: RANDOM OUTCOMES, SAMPLE SPACES, AND EVENTS

Study: Random Outcomes, Sample Spaces, and Events

Explore sample spaces, events, and outcomes. Find probabilities of events and complements of events.

Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems

Complete a set of practice problems to check your understanding of the lesson.

Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Random Outcomes, Sample Spaces, and Events

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 30 mins Scoring: 20 points

LESSON 2: PERMUTATIONS AND COMBINATIONS

Study: Permutations and Combinations

Learn definitions of permutations and combinations. Decide whether a situation involves permutations or combinations. Find the number of permutations or combinations for a given situation. Find probabilities using permutations and combinations.

Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems

Complete a set of practice problems to check your understanding of the lesson.

Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Permutations and Combinations

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 30 mins Scoring: 20 points

LESSON 3: INDEPENDENT AND DEPENDENT EVENTS

Study: Independent and Dependent Events

Use the general addition rule to find probabilities of compound events. Learn the definitions of independent and dependent events, and classify events as independent or dependent. Find $P(A \text{ and } B)$ for independent events.

Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems

Complete a set of practice problems to check your understanding of the lesson.

Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Independent and Dependent Events

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 30 mins Scoring: 20 points

LESSON 4: CONDITIONAL PROBABILITY

Study: Conditional Probability

Learn how to identify and solve conditional probability problems. Use conditional probability concepts to test events for independence.

Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems

Check your understanding of the lesson.

Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Conditional Probability

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 30 mins Scoring: 20 points

LESSON 5: INTRODUCTION TO PROBABILITY WRAP-UP

Practice: Assignment

Submit your work for a set of 20 practice problems.

Duration: 0 hrs 40 mins Scoring: 20 points

Review: Introduction to Probability

Prepare for the unit test by reviewing key concepts and skills.

Duration: 0 hrs 30 mins Scoring: 0 points

Test (CS): Introduction to Probability

Take a computer-scored test to check what you have learned in this unit.

Duration: 0 hrs 45 mins Scoring: 50 points

Test (TS): Introduction to Probability

Take a teacher-scored test to check what you have learned in this unit.

Duration: 0 hrs 45 mins Scoring: 50 points

UNIT 8: APPLICATIONS OF PROBABILITY

LESSON 1: USING TWO-WAY FREQUENCY TABLES

Study: Using Two-Way Frequency Tables

Identify joint and marginal frequencies. Use two-way tables to find probabilities and conditional probabilities. Use two-way tables to test for independence and to help make decisions.

Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems

Complete a set of practice problems to check your understanding of the lesson.

Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Using Two-Way Frequency Tables

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 30 mins Scoring: 20 points

LESSON 2: USING PROBABILITY TO MAKE DECISIONS

Study: Using Probability to Make Decisions

Learn how to simulate a random event using random number generators and rows of random digits and use results to estimate probabilities empirically.

Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems

Complete a set of practice problems to check your understanding of the lesson.

Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Using Probability to Make Decisions

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 30 mins Scoring: 20 points

LESSON 3: SIMULATIONS

Study: Simulations

Learn how to simulate a random event using random number generators and rows of random digits and use results to estimate probabilities empirically.

Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems

Complete a set of practice problems to check your understanding of the lesson.

Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Simulations

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 30 mins Scoring: 20 points

Discuss: Using Simulations to Explore Real-World Concerns

Participate in a three- to five-question discussion to practice methods learned in this unit.

Duration: 0 hrs 20 mins Scoring: 30 points

LESSON 4: PROJECT

Project: Project

Use your knowledge, skills, and resources to make sense of and persevere in solving a real-world problem.

Duration: 2 hrs Scoring: 50 points

LESSON 5: APPLICATIONS OF PROBABILITY WRAP-UP

Practice: Assignment

Submit your work for a set of 20 practice problems.

Duration: 0 hrs 40 mins Scoring: 20 points

Review: Applications of Probability

Prepare for the unit test by reviewing key concepts and skills.

Duration: 0 hrs 30 mins Scoring: 0 points

Test (CS): Applications of Probability

Take a computer-scored test to assess what you have learned in this unit.

Duration: 0 hrs 45 mins Scoring: 50 points

Test (TS): Applications of Probability

Take a teacher-scored test to assess what you have learned in this unit.

Duration: 0 hrs 45 mins Scoring: 50 points

UNIT 9: DISCRETE PROBABILITY DISTRIBUTIONS

LESSON 1: DISCRETE RANDOM VARIABLES

Study: Discrete Random Variables

Learn how to identify a discrete random variable and calculate its probability distribution, mean, and standard deviation.

Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems

Complete a set of practice problems to check your understanding of the lesson.

Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Discrete Random Variables

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 30 mins Scoring: 20 points

LESSON 2: BINOMIAL PROBABILITY

Study: Binomial Probability

Learn how to calculate binomial probability distributions, including mean and standard deviation.

Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems

Complete a set of practice problems to check your understanding of the lesson.

Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Binomial Probability

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 30 mins Scoring: 20 points

LESSON 3: CUMULATIVE BINOMIAL PROBABILITY DISTRIBUTIONS

Study: Cumulative Binomial Probability Distributions

Learn how to calculate binomial probability distributions, including mean and standard deviation.

Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems

Complete a set of practice problems to check your understanding of the lesson.

Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Cumulative Binomial Probability Distributions
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 30 mins Scoring: 20 points

LESSON 4: DISCRETE PROBABILITY DISTRIBUTIONS WRAP-UP

Practice: Assignment
Submit your work for a set of 20 practice problems.
Duration: 0 hrs 40 mins Scoring: 20 points

Review: Discrete Probability Distributions
Prepare for the unit test by reviewing key concepts and skills.
Duration: 0 hrs 30 mins Scoring: 0 points

Test (CS): Discrete Probability Distributions
Take a computer-scored test to assess what you have learned in this unit.
Duration: 0 hrs 45 mins Scoring: 50 points

Test (TS): Discrete Probability Distributions
Take a teacher-scored test to assess what you have learned in this unit.
Duration: 0 hrs 45 mins Scoring: 50 points

UNIT 10: CONTINUOUS PROBABILITY DISTRIBUTIONS

LESSON 1: CONTINUOUS RANDOM VARIABLES

Study: Continuous Random Variables
Learn how to identify a continuous random variable and calculate its probability distribution.
Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems
Complete a set of practice problems to check your understanding of the lesson.
Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Continuous Random Variables
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 30 mins Scoring: 20 points

LESSON 2: NORMAL DISTRIBUTIONS

Study: Normal Distributions
Learn how to identify properties of a normal distribution and then apply these properties to determine probabilities with a table or graphing calculator.
Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems
Complete a set of practice problems to check your understanding of the lesson.
Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Normal Distributions
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 30 mins Scoring: 20 points

Discuss: Checking for Normal Probability Distributions
Participate in a three- to five-question discussion to practice methods learned in this unit.
Duration: 0 hrs 20 mins Scoring: 30 points

LESSON 3: *Z*-SCORES

Study: *z*-Scores
Learn how to identify properties of a normal distribution and then apply these properties to determine probabilities with a table or graphing calculator.
Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems
Complete a set of practice problems to check your understanding of the lesson.
Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: *z*-Scores
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 30 mins Scoring: 20 points

LESSON 4: CONTINUOUS PROBABILITY DISTRIBUTIONS WRAP-UP

Practice: Assignment
Submit your work for a set of 20 practice problems.
Duration: 0 hrs 40 mins Scoring: 20 points

Review: Continuous Probability Distributions
Prepare for the unit test by reviewing key concepts and skills.
Duration: 0 hrs 30 mins Scoring: 0 points

Test (CS): Continuous Probability Distributions
Take a computer-scored test to assess what you have learned in this unit.
Duration: 0 hrs 45 mins Scoring: 50 points

Test (TS): Continuous Probability Distributions
Take a teacher-scored test to assess what you have learned in this unit.
Duration: 0 hrs 45 mins Scoring: 50 points

UNIT 11: SAMPLING AND CONFIDENCE INTERVALS

LESSON 1: SAMPLE MEANS

Study: Sample Means
Learn how to understand and apply the concepts and parameters of the central limit theorem to single sample mean distributions.
Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems
Complete a set of practice problems to check your understanding of the lesson.
Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Sample Means
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 30 mins Scoring: 20 points

LESSON 2: SAMPLE PROPORTIONS

Study: Sample Proportions
Learn how to understand and apply the concepts and parameters of the central limit theorem to single sample proportion distributions.
Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems
Complete a set of practice problems to check your understanding of the lesson.
Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Sample Proportions
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 30 mins Scoring: 20 points

LESSON 3: CONFIDENCE INTERVALS: SAMPLE MEANS

Study: Confidence Intervals: Sample Means
Learn how to use large sample data to calculate and interpret a confidence interval for a population mean.
Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems
Complete a set of practice problems to check your understanding of the lesson.
Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Confidence Intervals: Sample Means
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 30 mins Scoring: 20 points

LESSON 4: CONFIDENCE INTERVALS: SAMPLE PROPORTIONS

Study: Confidence Intervals: Sample Proportions
Learn how to use large sample data to calculate and interpret a confidence interval for a population proportion.
Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems
Complete a set of practice problems to check your understanding of the lesson.
Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Confidence Intervals: Sample Proportions
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 30 mins Scoring: 20 points

LESSON 5: EVALUATING STATISTICAL STUDIES

Study: Evaluating Statistical Studies
Learn how to evaluate the design of a study, the appropriateness of its analysis, and the validity of its conclusions.
Duration: 0 hrs 50 mins Scoring: 0 points

Checkup: Practice Problems
Complete a set of practice problems to check your understanding of the lesson.
Duration: 0 hrs 30 mins Scoring: 0 points

Quiz: Evaluating Statistical Studies
Take a quiz to assess your understanding of the material.
Duration: 0 hrs 30 mins Scoring: 20 points

Discuss: Analyzing Real-World Reports
Participate in a three- to five-question discussion to practice methods learned in this unit.
Duration: 0 hrs 20 mins Scoring: 30 points

LESSON 6: SAMPLING AND CONFIDENCE INTERVALS WRAP-UP

Practice: Assignment
Submit your work for a set of 20 practice problems.
Duration: 0 hrs 40 mins Scoring: 20 points

Review: Sampling and Confidence Intervals
Prepare for the unit test by reviewing key concepts and skills.
Duration: 0 hrs 30 mins Scoring: 0 points

Test (CS): Sampling and Confidence Intervals
Take a computer-scored test to assess what you have learned in this unit.
Duration: 0 hrs 45 mins Scoring: 50 points

Test (TS): Sampling and Confidence Intervals
Take a teacher-scored test to assess what you have learned in this unit.
Duration: 0 hrs 45 mins Scoring: 50 points

UNIT 12: SEMESTER 2 REVIEW AND EXAM

LESSON 1: SEMESTER 2 REVIEW AND EXAM

Review: Wrap-Up and Review

Prepare for the course exam by reviewing key concepts covered in this course.

Duration: 1 hr Scoring: 0 points

Exam: Semester 2 Exam

Take a computer-scored exam to demonstrate your mastery of concepts and skills covered in this course.

Duration: 0 hrs 50 mins Scoring: 200 points