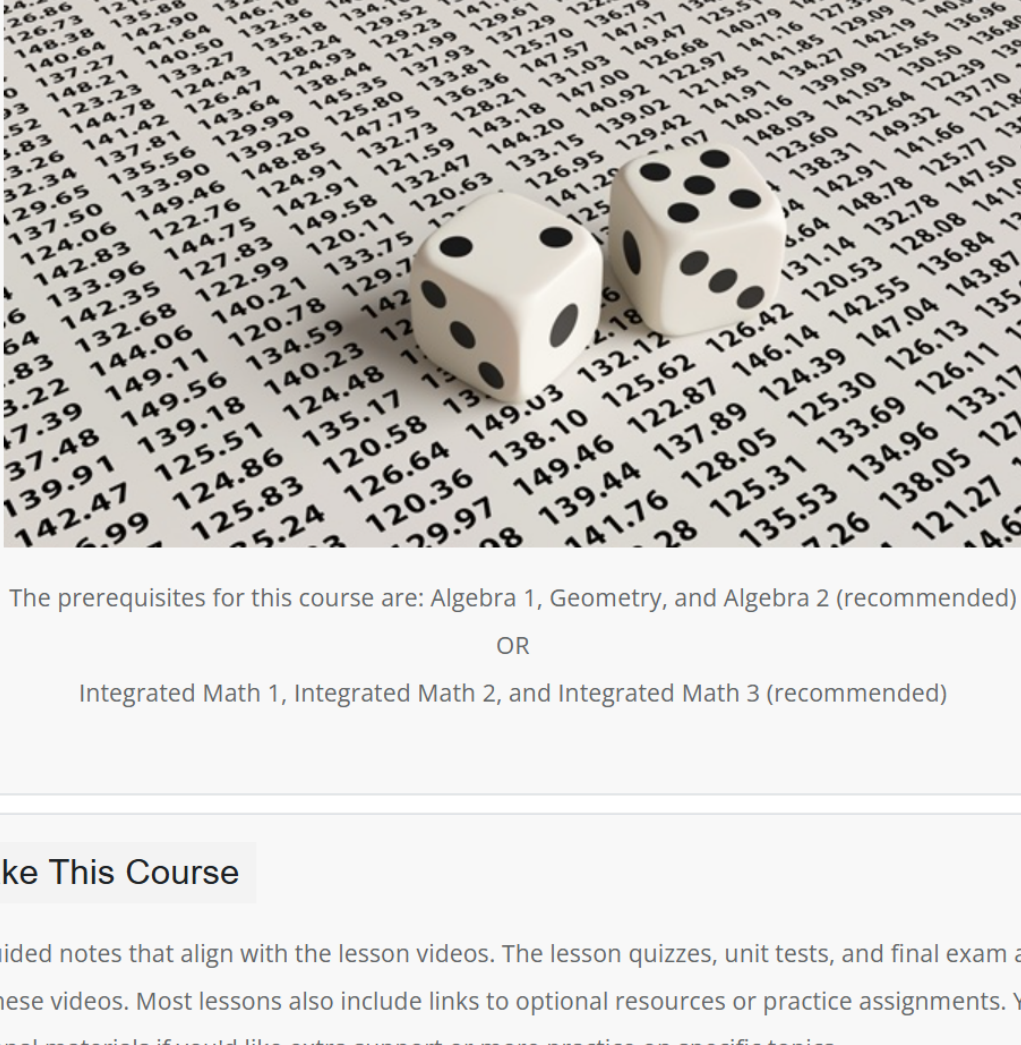


Probability and Statistics, Part 1

ATTENTION

Grading may take up to 7 days at semester end and during the summer semester!
Submit your **last assignment two weeks before your school's semester ends.**



The prerequisites for this course are: Algebra 1, Geometry, and Algebra 2 (recommended)
OR
Integrated Math 1, Integrated Math 2, and Integrated Math 3 (recommended)

How to Take This Course

Each unit includes guided notes that align with the lesson videos. The lesson quizzes, unit tests, and final exam are all based on the content covered in these videos. Most lessons also include links to optional resources or practice assignments. You're encouraged to explore these additional materials if you'd like extra support or more practice on specific topics.

Complete all the quizzes and the assignment in each unit. Once the quizzes for a unit are complete, you will have access to the unit test. We recommend you complete the unit assignment before you attempt the unit test; the assignment will help you prepare. You will have access to the final after you have been enrolled in the course for at least 30 days, all unit tests are completed, and your assignments are graded.

Allow 3-4 school days for an assignment to be graded. To understand the course grading, read the full [course instructions](#).

[Course Instructions](#)

[How This Course Works & Suggested Timeline](#)

[Submitting Your Assignments](#)

[Ask The Teacher](#)

Meet your teacher for this course and ask a question.

Need help with the course? We offer online tutoring; find more details about it [here](#).

MANDATORY QUIZ

Completion ▾

You are required to take this quiz before you start the course. To prepare, read the course instructions and the "submitting your assignments" document, watch the video on the how this course works page and review the suggested timeline.

[Learning Objectives & Standards Met By This Course](#)

Unit 1: Intro to Statistics and Data

In this unit, you will:

- Distinguish between a population and a sample.
- Identify variables as qualitative or quantitative and discrete or continuous.
- Organize data into frequency tables and relative frequency tables.
- Calculate and interpret mean, median, mode, range, variance, and standard deviation.

[Unit 1 Guided Notes](#)

These guided notes correspond to the instructional videos. You may use them on the unit quizzes, unit tests, and course final.

As you work through the lessons, you are encouraged to work through the [practice problem set](#), and check your answers against the [key](#).

Both the guided notes and the practice problem set are for your use; they will not be submitted for grading.

[1.1 Statistics Vocabulary](#)

Quiz 1.1

Completion ▾

[1.2 Organizing Data](#)

Quiz 1.2

Completion ▾

[1.3 Measures of Central Tendency](#)

Quiz 1.3

Completion ▾

[1.4 Measures of Spread](#)

Quiz 1.4

Completion ▾

[Unit 1 Assignment: Data Detectives](#)

Completion ▾

Unit 1 Test

Not available unless: The activity **Quiz 1.1** is marked complete ...

[Show more ▾](#)

Unit 2: Displaying and Interpreting Data

In this unit, you will:

- Create and interpret stem-and-leaf plots and box plots.
- Identify and describe the importance of outliers and clusters.
- Make and interpret scatter plots.
- Explain correlation vs causation.
- Calculate a trend line/line of best fit.
- Calculate correlation coefficients.

[Unit 2 Guided Notes](#)

These guided notes correspond to the instructional videos. You may use them on the unit quizzes, unit tests, and course final.

As you work through the lessons, you are encouraged to work through the [practice problem set](#), and check your answers against the [key](#).

Both the guided notes and the practice problem set are for your use; they will not be submitted for grading.

[2.1 Data Displays](#)

Quiz 2.1

Completion ▾

[2.2 Identifying Outliers and Clusters](#)

Quiz 2.2

Completion ▾

[2.3 Correlation vs Causation](#)

Quiz 2.3

Completion ▾

[2.4 Line of Best Fit](#)

Quiz 2.4

Completion ▾

[2.5 Correlation Coefficient](#)

Quiz 2.5

Completion ▾

[Unit 2 Assignment: Interpreting Data](#)

Completion ▾

Unit 2 Test

Not available unless: The activity **Quiz 2.1** is marked complete ...

[Show more ▾](#)

Unit 3: Probability Fundamentals

In this unit, you will:

- Explore sample spaces and probability notation.
- Differentiate between and solve problems about Theoretical and Experimental Probability.
- Find probabilities of simple, compound, independent, and dependent events.
- Define and apply the probability addition rule and the probability multiplication rule.

[Unit 3 Guided Notes](#)

These guided notes correspond to the instructional videos. You may use them on the unit quizzes, unit tests, and course final.

As you work through the lessons, you are encouraged to work through the [practice problem set](#), and check your answers against the [key](#).

Both the guided notes and the practice problem set are for your use; they will not be submitted for grading.

[3.1 Sample Space and Event Notation](#)

Quiz 3.1

Completion ▾

[3.2 Theoretical vs Experimental Probability](#)

Quiz 3.2

Completion ▾

[3.3 Simple and Compound Events](#)

Quiz 3.3

Completion ▾

[3.4 Addition Rule](#)

Quiz 3.4

Completion ▾

[3.5 Multiplication Rule](#)

Quiz 3.5

Completion ▾

[Unit 3 Assignment: Probability Thoughts and Games](#)

Completion ▾

Unit 3 Test

Not available unless: The activity **Quiz 3.1** is marked complete ...

[Show more ▾](#)

Unit 4: Advanced Probability Applications

In this unit, you will:

- Interpret and use two-way frequency tables.
- Calculate conditional probabilities.
- Use Venn diagrams, tree diagrams, and geometric probability models to solve problems.
- Apply probability to real-world situations.

[Unit 4 Guided Notes](#)

These guided notes correspond to the instructional videos. You may use them on the unit quizzes, unit tests, and course final.

As you work through the lessons, you are encouraged to work through the [practice problem set](#), and check your answers against the [key](#).

Both the guided notes and the practice problem set are for your use; they will not be submitted for grading.

[4.1 Two Way Frequency Tables and Conditional Probability](#)

Quiz 4.1

Completion ▾

[4.2 Venn Diagrams](#)

Quiz 4.2

Completion ▾

[4.3 Tree Diagrams and Probability Models](#)

Quiz 4.3

Completion ▾

[4.4 Geometric Probability](#)

Quiz 4.4

Completion ▾

[Unit 4 Assignment: Probability in Real Life](#)

Completion ▾

Unit 4 Test

Not available unless: The activity **Quiz 4.1** is marked complete ...

[Show more ▾](#)

Unit 5: Counting and Randomness

In this unit, you will:

- Calculate factorials and apply the Fundamental Counting Principle.
- Distinguish between permutations and combinations.
- Calculate probabilities using permutations and combinations.
- Simulate random events to estimate probabilities.

[Unit 5 Guided Notes](#)

These guided notes correspond to the instructional videos. You may use them on the unit quizzes, unit tests, and course final.

As you work through the lessons, you are encouraged to work through the [practice problem set](#), and check your answers against the [key](#).

Both the guided notes and the practice problem set are for your use; they will not be submitted for grading.

[5.1 Factorials and Fundamental Counting Principle](#)

Quiz 5.1

Completion ▾

[5.2 Permutations vs. Combinations](#)

Quiz 5.2

Completion ▾

[5.3 Randomization and Simulation](#)

Quiz 5.3

Completion ▾

[Unit 5 Assignment: Randomness and Counting, A Project](#)

Completion ▾

Unit 5 Test

Not available unless: The activity **Quiz 5.1** is marked complete ...

[Show more ▾](#)

Final Exam

You will have access to the final after you have been enrolled in the course for at least 30 days and when all unit tests are completed, and your assignments are graded.

Warning: You have only ONE attempt at the final. Are you ready to take the final? We highly recommend you take the practice final first, and if you are weak in any area, review the relevant course material again. You have unlimited attempts at the practice final; it will help you to prepare.

Remember, if you want to improve your grade in this course, you need to do that BEFORE you take the final exam.

Good Luck!!

Not available unless: The activity **MANDATORY QUIZ** is marked complete

Course Completion & Requesting a Transcript

Transcript - Send a transcript to your school to report the credits you earned. A transcript will list all the courses you have taken with us, including those still in progress.

Feedback - Before you go, we would appreciate your opinion on the course; please take 1 minute to complete the feedback form. We hope you enjoyed this course!

[Course Feedback](#)

Thank you for taking this course! Let us know what you think about it.

[Request a Transcript](#)

Notify your school that you have completed your course. Send them a transcript by email or mail. A transcript will list all the courses you have completed and those in progress.