Mathematics for College Liberal Arts provides a math curriculum focused on developing the mastery of skills identified as critical to postsecondary readiness in math. This elective is aligned with Florida's Benchmarks for Excellent Students Thinking (B.E.S.T.) in mathematics and emphasizes instruction with applicability in real-world context.

Course topics include a review of algebra concepts; functions and sequences; systems of equations; data and mathematical modeling; descriptive statistics; logic and reasoning; geometric principles of measurement and congruency, and applications of probability.

A variety of activities allow for students to think mathematically in a variety of scenarios and tasks. In Discussions, students exchange and explain their mathematical ideas. Modeling activities ask them to analyze real-world scenarios and mathematical concepts. Journaling activities have students reason abstractly and quantitatively, construct arguments, critique reasoning, and communicate precisely. And in Performance Tasks, students synthesize their knowledge in novel, real-world scenarios, make sense of multifaceted problems, and persevere in solving them.

The course is built to Florida Benchmarks for Excellent Student Thinking (B.E.S.T.).

Length: One Semester

Unit 1: Foundations of Algebra

- Algebraic Properties and Expressions
- Solving Linear Equations
- Identifying Functions
- Graphs of Functions
- Foundations of Algebra Wrap-Up

Unit 2: Linear Equations

- Slope
- Slope-Intercept Equation of a Line
- Point-Slope Equation of a Line
- Parallel and Perpendicular Lines
- Linear Equations Wrap-Up

Unit 3: Exponential Functions

- Exponential Functions
- Examples and Applications of Exponential Functions
- Graphs of Exponential Functions
- Exponential Functions Wrap-Up

Unit 4: Comparing and Analyzing Functions

Copyright© Edmentum Inc. All Rights Reserved.

- Parent Functions
- Linear, Quadratic, and Exponential Functions
- Interest
- Compound Interest
- Comparing and Analyzing Functions Wrap-up

Unit 5: Data and Mathematical Modeling

- Two-Variable Data and Scatterplots
- Fitting Linear Models to Data
- Nonlinear Models
- Data and Mathematical Modeling Wrap-Up

Unit 6: Descriptive Statistics

- Categorical Data
- Numerical Data
- Measures of Center and Spread
- Dot Plots, Box Plots, and Histograms
- Describing Distributions
- Comparing Distributions
- Two-Way Frequency Tables
- Descriptive Statistics Wrap-Up

Unit 7: Semester 1 Exam

Unit 8: Logic and Reasoning

- Induction: The Search for Rules and Patterns
- Deduction: Making a Case
- The Look and Language of Logic
- Logic and Reasoning Wrap-Up

Unit 9: Congruent and Similar Figures

- Congruence and Similarity
- Congruence
- Similar Triangles
- Similarity Theorems and Proportional Reasoning
- Performance Task: The Parallax Problem
- Symmetry
- Tessellations
- Congruent and Similar Figures Wrap-Up

Unit 10: Right Triangles

- The Pythagorean Theorem
- Special Right Triangles
- Trigonometric Ratios
- Right Triangles Wrap-Up

Unit 11: Area, Surface Area, and Volume

Copyright© Edmentum Inc. All Rights Reserved.

- Area of a Triangle with Coordinate Geometry
- Area and Perimeter of Polygons with Coordinate Geometry
- Area and Perimeter: Changing Dimensions
- Area and Sectors
- Surface Area
- Volume
- Spheres
- Similar Solids
- Performance Task: Three-Dimensional Solids
- Area, Surface Area, and Volume Wrap-Up

Unit 12: Applications of Probability

- Probability
- Probability of Independent and Dependent Events
- Conditional Probability
- Two-Way Frequency Tables
- Permutations and Combinations
- Applications of Probability Wrap-Up

Unit 13: Semester 2 Review and Exam

Copyright© Edmentum Inc. All Rights Reserved.