



# LEARNING PATHS

## MATHEMATICS



Discover just how accessible and useful math can be! With this selection of courses, you will dive deep into the marvelous world of mathematics and uncover the tips, tricks, and strategies that teachers and mathematicians use to tackle a wide array of problems.

### CORE COURSES

Plunge into a comfortable introduction to all the fundamental aspects of math with three courses packed full of helpful techniques designed to maximize your effectiveness at thinking about—and solving—basic and advanced problems.

- ❑ [The Joy of Mathematics](#)
- ❑ [The Secrets of Mental Math](#)
- ❑ [Mastering the Fundamentals of Mathematics](#)

### ELECTIVES: Applied Mathematics (Choose 3)

Enhance your confidence and look at math in an entirely new way by choosing three courses that use fun and creative techniques to teach skills.

- ❑ [The Power of Mathematical Visualization](#)
- ❑ [Big Data: How Data Analytics Is Transforming the World](#)
- ❑ [Art and Craft of Mathematical Problem Solving](#)
- ❑ [Mind-Bending Math: Riddles and Paradoxes](#)
- ❑ [How Music and Mathematics Relate](#)
- ❑ [Mathematical Decision Making: Predictive Models and Optimization](#)

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## ELECTIVES: Beyond the Basics (Choose 3)

Discover problem solving techniques that are essential to today's world by picking three courses from the most critical areas of mathematics.

- [Mastering Differential Equations: The Visual Method](#)
- [Geometry: An Interactive Journey to Mastery](#)
- [Algebra I](#)
- [Algebra II](#)
- [Understanding Calculus: Problems, Solutions and Tips](#)
- [Understanding Calculus II: Problems, Solutions, and Tips](#)
- [Change and Motion: Calculus Made Clear, 2nd Edition](#)
- [Understanding Multivariable Calculus: Problems, Solutions, and Tips](#)

## ELECTIVES: Games, Probability and Proofs (Choose 2)

Use math to uncover a new way of thinking about numbers and the world as you choose two courses that provide accessible, real-world applications.

- [What Are the Chances? Probability Made Clear](#)
- [Games People Play: Game Theory in Life, Business, and Beyond](#)
- [Prove It: The Art of Mathematical Argument](#)
- [The Mathematics of Games and Puzzles: From Cards to Sudoku](#)