

Course Outline

Math 143 EN – Fall 2017

Class 1 – Monday, August 28

Lecture: [Simplifying Algebraic Expressions](#), [Review of Equations](#), [Fractions and Decimals](#),
[Real Numbers - Part 1](#)

Class 2 – Wednesday, August 30

Lecture: [Factoring A](#), [Completing the Square 1, 2, 3](#), [Factoring 1](#)

Also posted: [Graphing Lines](#), [Exponents 1](#), [Quiz 2 Review](#)

Class 3 – Wednesday, September 6

Lecture: [The nth Root of a Number](#), [Radical Expressions](#), [Completing the Square - part 4](#)

Also posted: [Quiz 4 Review](#), Systems of equations [by substitution](#), [by elimination](#), [Linear Word Problems](#)

Class 4 – Monday, September 11

Lecture: [Introduction to Construction](#), [Triangle Inequality](#), [The Pythagorean Theorem](#),
[The Smallest Value of a Quadratic Expression](#), [Graph of a Parabola 1](#), [Inequality and Interval Notation](#)

Class 5 – Wednesday, September 13

Lecture: [Graphical Solutions](#), [Integer Exponents](#), [Complex Fractions](#), [The Real Number System](#)

Also posted: [Quiz 6 Review](#), [Linear Inequalities](#)

Class 6 – Monday, September 18

Lecture: [Graph of a Parabola - Part 2](#), [Similar Triangles](#), [Introduction to Combinatorics](#)

Class 7 – Wednesday, September 20

Lecture: [Optimization 1](#), [Quadratic Inequalities](#)

Also posted: [Exam 1 Information](#), [Exam 1 Review](#)

Class 8 – Monday, September 25

Lecture: Review for Exam 1, [Factoring 2](#), [Writing Equations of Lines](#), [Circles - Part 1](#)

Class 9 – Wednesday, September 27

Exam 1

Also posted: [Quiz 8 Review](#)

Class 10 – Monday, October 2

Lecture: [Non-Linear Systems](#), [Functions](#), [Domain of Functions](#), [Right Triangle Trigonometry](#)

Class 11 – Wednesday, October 4

Lecture: [Circles - Part 2](#), [Trigonometric Function Values of Famous Angles](#), [Summation 1](#)

Also posted: [Quiz 10 Review](#)

Class 12 – Monday, October 9

Lecture: [Simplifying Trigonometric Expressions](#), [Rational Exponents](#), [Computing Trigonometric Expressions](#), [Logarithms 1](#)

Class 13 – Wednesday, October 11

Lecture: [The Quadratic Formula](#), [Radical Equations](#)

Also posted: [Exam 2 Information](#), [Exam 2 Review](#)

Class 14 – Monday, October 16

Lecture: Midterm Review, [Basic Exponential and Logarithmic Equations](#), [Rotational Angles](#), [Arithmetic Sequences](#)

Class 15 – Wednesday, October 18

Exam 2

Also posted: [Quiz 12 Review](#)

Class 16 – Monday, October 23

Lecture: [Logarithms 1.5](#), [Arithmetic, Geometric, and Harmonic Means](#), [Trigonometric Identities 1](#), [Induction](#)

Class 17 – Wednesday, October 25

Lecture: [Induction](#), [Unit Circle Trigonometry](#)

Also posted: [Quiz 14 Review](#)

Class 18 – Monday, October 30

Lecture: [Rational Inequalities](#), [Another Method](#), [Symmetries of the Unit Circle](#), [Radian Measure](#), [Trigonometric Equations 1](#)

Class 19 – Wednesday, November 1

Lecture: [Basic Functions](#), [Logarithms 2](#)

Also posted: [Quiz 16 Review](#)

Class 20 – Monday, November 6

Lecture: [Logarithms 2](#) (finished), [Proof of the Sum Formulas](#), [Compound Angle Identities](#)

Class 21 – Wednesday, November 8

Lecture: [Trigonometric Identities 2](#), [Trigonometric Identities 4](#), [Trigonometric Equations 2](#),
[Trigonometric Equations 3](#), [Graphing Trigonometric Functions](#)

Also posted: [Exam 3 Information](#), [Exam 3 Review](#)

Class 22 – Monday, November 13

Lecture: Review for Exam 3, Tangent Lines to Parabolas – [By Completing the Square](#), [Using the Discriminant](#)

Class 23 – Wednesday, November 15

Exam 3

Also posted: [Quiz 18 Review](#)

Class 24 – Monday, November 20

Lecture: [Graphing Polynomials - 1](#), [Law of Sines - Part 1](#), [Exponential Equations](#), [Vectors 1](#)

Class 25 – Wednesday, November 22

Lecture: [Arcs and Sectors in Circles](#), [Inverse Functions](#), [Vectors 2](#), [Complex Numbers](#)

Also posted: [Quiz 20 Review](#)

Class 26 – Monday, November 27

Lecture: [Trigonometric Equations 4](#), [Law of Sines - Part 2](#), [Half-Angle Formulas](#), [Inverse Trigonometric Functions](#)

Class 27 – Wednesday, November 29

Lecture: [Graphing Polynomials - 2](#), [Solving Triangles](#), [Vectors 3](#), [Discontinuities of Rational Functions](#),
[Trigonometric Equations 5](#)

Also posted: [Final Exam Information](#), Final Review: [Version A](#) and [Version B](#)

Class 28 – Monday, December 4

Lecture: [Vectors](#), [Inverse Trigonometric Expressions](#), [Product-Sum identities](#), [Polar Form of Complex Numbers](#)

Class 29 – Wednesday, December 6

Lecture: [Division of Polynomials](#), [Remainder Theorem](#), [Transformations on Graphs](#), [Graphing Rational Functions](#)

Class 30 – Monday, December 11

Lecture: [Graphing Trigonometric Functions \(practice\)](#), [Counting Principles](#), [The Binomial Theorem](#), [Answers](#),
[Cantor's Diagonal Argument](#)

Class 31 – Wednesday, December 13

Final Exam (same as Exam 4)