

Course Outline

Math 207 GH – Fall 2017

Class 1 – Tuesday, August 29

Lecture: [Course Information](#), [Algebra Review](#), [Definition of a Function](#),
[Complete Analysis of a Function - Part 1](#)

Also posted: [Guide to Review](#), [Are You Ready for Calculus](#) and [Answers](#)

Class 2 – Thursday, August 31

Lecture: [Complete Analysis of a Function - Part 1](#) (finished)

Also posted: [Quiz 2 Information](#)

Class 3 – Tuesday, September 5

Lecture: Trigonometry Review: Right Triangle Trigonometry, [Famous Values](#),
[Unit Circle Definitions](#), [Symmetries of the Unit Circle](#),
Trigonometric Equations: [Part 1](#), [Part 2](#),
Algebra Review: [Quadratic Inequalities](#)
[Average Velocity - Part 1](#), [Basic Functions and Their Properties](#),
[Limits at Infinity - Part 1](#)

Class 4 – Thursday, September 7

Lecture: Algebra Review: [Logarithms - Part 1](#), [Inverse Functions](#),
[Average Velocity - Part 2](#)

Also posted: [Quiz 4 Information](#)

Class 5 – Tuesday, September 12

Lecture: Algebra Review: [Logarithms - Part 2](#)
[Properties of Limits](#), [Limits at Infinity – Part 2](#)

Class 6 – Thursday, September 14

Lecture: [Properties of Limits](#), [Two-Sided Limits](#)

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

Class 7 – Tuesday, September 19

Lecture: Review for Exam 1, Circles ([Theory](#) and [Practice](#)), Introduction to Analytic Geometry,
[Continuous Functions](#)

Class 8 – Thursday, September 21
Exam 1

Class 9 – Tuesday, September 26
Lecture: [Instantaneous Velocity](#)

Class 10 – Thursday, September 28
Lecture: [Differentiating by Finding Limits](#), [Differentiation 1](#) (proofs of the rules),
[Tangent Lines](#) (with calculus), [Tangent Lines](#) (before calculus)
Also posted: [Quiz 8 Information](#)

Class 11 – Tuesday, October 3
Lecture: [Trigonometric Limits](#), [Differentiating \$\sin x\$ and \$\cos x\$](#) (proofs), [Differentiation 1](#) (Practice)
[Differentiable Functions](#)

Class 12 – Thursday, October 5
Lecture: [The Real Number System](#), [The Intermediate Value Theorem](#)
Also posted: [Quiz 10 Information](#)

Class 13 – Tuesday, October 10
Lecture: [Graphing Polynomials - 1](#), [Limits involving \$e\$](#) , [Complete Analysis of a Function – Part 2](#)

Class 14 – Thursday, October 12
Lecture: [Relative Extrema](#), [Proving the Product Rule](#), [Differentiation 2](#) (practice)
Also posted: [Exam 2 Information](#), [Exam 2 Review](#)

Class 15 – Tuesday, October 17
Lecture: Midterm Review, [Graphing Polynomials - 2](#), [Inverse Trigonometric Functions](#)

Class 16 – Thursday, October 19
Exam 2
Also posted: [Quiz 12 Information](#)

Class 17 – Tuesday, October 24
Lecture: [Extreme Value Theorems](#), [Optimization 2](#)

Class 18 – Thursday, October 26

Lecture: [Differentiating Logarithmic Functions](#), [Proving the Quotient Rule](#), [Differentiation 3](#)

Also posted: [Quiz 14 Information](#)

Class 19 – Tuesday, October 31

Lecture: [Antiderivatives](#)

Class 20 – Thursday, November 2

Lecture: [The Mean Value Theorem \(MVT\)](#), [Computing Trigonometric Expressions](#),
[Inverse Trigonometric Expressions](#)

Also posted: [Quiz 16 Information](#)

Class 21 – Tuesday, November 7

Lecture: The Second Derivative Test, The Chain Rule ([Practice](#)), [Optimization 3](#)

Class 22 – Thursday, November 9

Lecture: [Differentiating Exponential Functions](#), [Differentiation 5](#) (Practice), [Induction](#)

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

Class 23 – Tuesday, November 14

Lecture: Review for Exam 3, [Summation 2](#)

Class 24 – Thursday, November 16

Exam 3

Class 25 – Tuesday, November 21

Lecture: [Implicit Differentiation](#) ([more practice](#)), [Related Rates](#) ([more practice](#))

Also posted: [Quiz 19 Information](#)