

Math 208 - Calculus 2 - Spring 2017

Course Outline

This document will be updated shortly after each class.

Class 1 – Tuesday, January 17

Lecture: [Course Information](#), [Overview of Conic Sections](#)
Review of Differentiation (generalized polynomials, trig functions, sum rule, product rule, quotient rule, chain rule)

Also posted: [Are you ready for calculus 2?](#) and [Solutions](#)

Class 2 – Thursday, January 19

Lecture: [Review of Trigonometric Functions](#), Differentiating inverse functions
[Differentiating Trigonometric Functions](#)

Also posted: [Quiz 1 Information](#)

Class 3 – Tuesday, January 24

Lecture: Definite Integrals, [The Fundamental Theorem of Calculus](#),
[Inverse Trigonometric Expressions](#)

Class 4 – Thursday, January 26

Lecture: [The Fundamental Theorem of Calculus](#) (5.4)

Also posted: [Quiz 2 Information](#)

Class 5 – Tuesday, January 31

Lecture: [Logarithmic and Exponential Functions](#), [Integrating by Substitution](#)

Also posted: [Basic Integration Formulas](#), [Differentiation](#) (practice)

Class 6 – Thursday, February 2

Lecture: [Integrating Trigonometric Functions](#), [Sum-Product Identities](#)

Also posted: [Quiz 3 Information](#)

Class 7 – Tuesday, February 7

Lecture: [Integration by parts](#), [Trigonometric substitutions](#)

Also posted: [Trigonometric Formulas](#)

Class 8 – Thursday, February 9

Lecture: More on substitutions, [Partial Fractions](#),

Also posted: [Quiz 4 Information](#)

Class 9 – Tuesday, February 14

Lecture: [Partial Fractions](#) (finished), [L'Hôpital's Rule](#)

Also posted: [Integrals](#) (practice)

Class 10 – Thursday, February 16

Lecture: [Improper Integrals](#)

Also posted: [Exam 1 Information](#)

Class 11 – Tuesday, February 21

Lecture: Review for Exam 1, [Riemann Sums](#), [Numerical Integration](#)

Class 12 – Thursday, February 23

Exam 1

Also posted: [Quiz 5 Information](#)

Class 13 – Tuesday, February 28

Lecture: [Applications of the Definite Integral](#), Volumes by [cross sections](#)

Class 14 – Thursday, March 2

Lecture: Volumes by [disk method](#), [Hyperbolic Functions](#)

Also posted: [Quiz 6 Information](#)

Class 15 – Tuesday, March 7

Lecture: [Volumes by the washer method](#), [Graphing the Reciprocal of a Graph](#),
[Integrating Hyperbolic Functions](#)

Class 16 – Thursday, March 9

Lecture: [Volume by cylindrical shells](#), more hyperbolic functions

Also posted: [Quiz 7 Information](#)

Class 17 – Tuesday, March 14

Lecture: [Work](#), [Arc Length](#)

Class 18 – Thursday, March 16

Lecture: [Center of Mass](#)

Also posted: [Quiz 8 Information](#)

Class 19 – Tuesday, March 21

Lecture: [The real number system](#), [Completeness](#), [Proving the Intermediate Value Theorem](#)

Class 20 – Thursday, March 23

Lecture: [Sequences - Part 1](#)

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

Class 21 – Tuesday, March 28

Lecture: Review for Exam 2 ([Sample Exam 2](#))

Class 22 – Thursday, March 30

Exam 2

Also posted: [Quiz 9 Information](#)

Class 23 – Tuesday, April 4

Lecture: [Sequences - part 2](#)

Class 24 – Thursday, April 6

Lecture: [Sequences - part 3](#), [Arithmetic Sequences](#), [Geometric Sequences](#)

Also posted: [Quiz 10 Information](#)

Class 25 – Tuesday, April 18

Lecture: [Sequences - part 4](#), [Limits of Sequences](#), [Review of Fractions and Decimals](#),
[Geometric Series](#)

Class 26 – Thursday, April 20

Lecture: [Series 1](#) (stop at the integral test)

Also posted: [Quiz 11 Information](#)

Class 27 – Tuesday, April 25

Lecture: [Series 1](#) (finished), [Series 2](#) (the comparison test)

Class 28 – Thursday, April 27

Lecture: [Series 3 \(Root Test and Ratio Test\)](#), [Series 4](#) (alternating series)

Also posted: [Quiz 12 Information](#), [Exam 3 Information](#) (Exam 3 is the same as the Final Exam)

Class 29 – Tuesday, May 2

Lecture: [Power Series](#)

Class 30 – Thursday, May 4

Lecture: [Taylor Series](#) and [Applications](#)

Class 31 – Tuesday, May 9

Lecture: Final Review, [Parametrization](#)

Class 32 – Thursday, May 11

Exam 3 (same as the Final Exam)