### Schedule

A week-by-week breakdown of the material.

#### Week 1 (01/09-01/13)

- **Day 1** Review of Precalculus<sup>1</sup>
- **Day 2** Review of Precalculus (cont)<sup>2</sup>
- **Day 3** The concept of limit

#### Week 2 (01/16-01/20)

- Day 1 Limit laws
- Day 2 Continuity
- Day 3 Evaluating Limits, Trig Limits

#### Week 3 (01/23-01/27)

- Day 1 Limits at Infinity, Intemediate Value Theorem
- Day 2 Introduction to derivatives
- **Day 3** Derivative as a function

## Week 4 (01/30-02/03)

- **Day 1** Derivative rules
- **Day 2** Derivative rules (cont)
- **Day 3** Derivative as a rate of change, applications

# Week 5 (02/06-02/10)

- **Day 1 MIDTERM 1** (study guide<sup>3</sup>)
- Day 2 Higher derivatives
- Day 3 Derivatives for trigonometric functions

# Week 6 (02/13-02/17)

- Day 1 Chain rule and Implicit differentiation
- **Day 2** Related rates
- Day 3 Linear Approximation and applications

<sup>&</sup>lt;sup>1</sup>notes/algebra review.html

<sup>&</sup>lt;sup>2</sup>notes/algebra\_review.html

<sup>&</sup>lt;sup>3</sup>notes/midterm1\_study\_guide.html

#### Week 7 (02/20-02/24)

- Day 1 Extreme values
- Day 2 Mean value theorem, monotonicity
- Day 3 Graph sketching

#### Week 8 (02/27-03/03)

- Day 1 BREAK
- Day 2 BREAK
- Day 3 BREAK

#### Week 9 (03/06-03/10)

- **Day 1** Graph sketching
- **Day 2** (At conference)
- **Day 3** (At conference)

#### Week 10 (03/13-03/17)

- **Day 1** Applied optimization
- Day 2 Newton's method
- Day 3 Review

## Week 11 (03/20-03/24)

- Day 1 MIDTERM (study guide<sup>4</sup>)
- Day 2 Antiderivatives
- Day 3 Introduction to computing areas

# Week 12 (03/27-03/31)

- **Day 1** The definite integral
- Day 2 Fundamental theorem of Calculus
- Day 3 Fundamental theorem of Calculus (cont)

## Week 13 (04/03-04/07)

- **Day 1** The substitution method
- Day 2 Area between curves
- **Day 3** Area between curves (cont)

<sup>&</sup>lt;sup>4</sup>notes/midterm2\_study\_guide.html

# Week 14 (04/10-04/14)

Day 1 TBD Day 2 TBD

Day 3 TBD