## Schedule

A week-by-week breakdown of the material.

## Week 1 (09/07-9/11)

- **Day 1** Review of Calc 1<sup>1</sup>
- **Day 2** Review of Calc 1 (cont)<sup>2</sup>
- **Day 3** Review of Calc 1 (cont 2) $^3$  Area between graphs  $(6.1)^4$
- **Day 4** Volumes and Mean Value Theorem for integrals (6.2)<sup>5</sup>

### Week 2 (09/14-09/18)

- **Day 1** Volumes and Mean Value Theorem for integrals (6.2 cont)<sup>6</sup>
- **Day 2** Volumes of revolution (6.3)<sup>7</sup> Shell method (6.4)
- **Day 3** The exponential function (7.1)
- **Day 4** The exponential function (cont) (7.1)

# Week 3 (09/21-09/25)

- **Day 1** Inverse functions (7.2)
- Day 2 Logarithms (7.3)
- Day 3 Logarithms (cont) (7.3)
- Day 4 Defining logarithm as an integral

<sup>&</sup>lt;sup>1</sup>notes/calc1\_review.html

<sup>&</sup>lt;sup>2</sup>notes/calc1\_review.html

<sup>&</sup>lt;sup>3</sup>notes/calc1\_review.html

<sup>&</sup>lt;sup>4</sup>notes/area\_graphs.html

<sup>&</sup>lt;sup>5</sup>notes/volumes.html

<sup>&</sup>lt;sup>6</sup>notes/volumes.html

<sup>&</sup>lt;sup>7</sup>notes/volumes revolution.html

#### Week 4 (09/28-10/02)

- Day 1 Defining exponential as inverse of logarithm
- **Day 2** Exponential Growth and Decay (7.4)
- Day 3 Compound Interest (7.5)
- Day 4 L'Hospital's Rule (7.7)

### Week 5 (10/05-10/09)

- Day 1 Review / Catchup
- Day 2 MIDTERM
- **Day 3** Comparative growth of functions (7.7)
- **Day 4** Inverse Trigonometric Functions (7.8)

#### Week 6 (10/12-10/16)

- **Day 1** Hyperbolic Functions (7.9)
- **Day 2** Integration by parts (8.1)
- **Day 3** Trigonometric Integrals (8.2)
- **Day 4** Trigonometric Substitution (8.3)

## Week 7 (10/19-10/23)

- Day 1 Fall Break
- **Day 2** Method of Partial Fractions (8.5)
- **Day 3** Improper Integrals (8.6)
- **Day 4** Improper Integrals (cont) (8.6)

# Week 8 (10/26-10/30)

- Day 1 Special functions: Gamma
- Day 2 Special functions: Beta?
- **Day 3** Numerical Integration (8.8)
- **Day 4** Taylor Polynomials (9.4)

## Week 9 (11/02-11/06)

- Day 1 Arc Length (9.1)
- **Day 2** Parametric Equations (12.1)
- **Day 3** Arc Length and Area (12.2)
- Day 4 Review

## Week 10 (11/09-11/13)

- Day 1 MIDTERM
- **Day 2** Polar Coordinates (12.3)
- Day 3 Area and Arc Length in polar coordinates (12.4)
- **Day 4** Conic sections (12.5)

## Week 11 (11/16-11/20)

- **Day 1** Conic sections (cont) (12.5)
- Day 2 TBA
- Day 3 TBA
- Day 4 TBA

## Week 12 (11/23-11/27)

- Day 1 TBA
- Day 2 THANKSGIVING
- Day 3 THANKSGIVING
- Day 4 THANKSGIVING

### Week 13 (12/01-12/04)

- Day 1 TBA
- Day 2 TBA
- Day 3 TBA
- Day 4 TBA

## Week 14 (12/07-12/11)

- Day 1 TBA
- Day 2 TBA
- Day 3 TBA
- Day 4 TBA