

# 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** Review of Precalculus (inequalities)<sup>3</sup>

The concept of limit<sup>4</sup>

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

**Day 1** The concept of limit<sup>5</sup>

Limit laws<sup>6</sup>

**Day 2** Continuity<sup>7</sup>

**Day 3** Evaluating Limits<sup>8</sup>

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

**Day 1** Trigonometric Limits<sup>9</sup>

**Day 2** Limits at Infinity<sup>10</sup>

**Day 3** Intermediate Value Theorem<sup>11</sup>

Homework Due: 2.5 16, 30, 2.6 10, 24, 40

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<sup>1</sup>[notes/algebra\\_review.html](#)

<sup>2</sup>[notes/algebra\\_review.html](#)

<sup>3</sup>[notes/algebra\\_review.html](#)

<sup>4</sup>[notes/limit\\_concept.html](#)

<sup>5</sup>[notes/limit\\_concept.html](#)

<sup>6</sup>[notes/limit\\_laws.html](#)

<sup>7</sup>[notes/continuity.html](#)

<sup>8</sup>[notes/limit\\_evaluation.html](#)

<sup>9</sup>[notes/limit\\_trig.html](#)

<sup>10</sup>[notes/limit\\_infinity.html](#)

<sup>11</sup>[notes/ivt.html](#)

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

**Day 1** Introduction to derivatives<sup>12</sup>

**Day 2** Derivative as a function<sup>13</sup>

Homework Due: 2.7 8, 20, 2.8 2, 6

**Day 3** Derivative rules<sup>14</sup>

Homework Due: 3.1 4, 26, 34, 38

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

**Day 1** **MIDTERM 1** (study guide<sup>15</sup>)

**Day 2** Sick day

**Day 3** Derivative rules<sup>16</sup>

Higher derivatives<sup>17</sup>

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

**Day 1** Derivatives for trigonometric functions<sup>18</sup>

Homework Due: 3.2 16, 20, 26, 36, 66

**Day 2** Chain rule<sup>19</sup>

Implicit differentiation<sup>20</sup>

**Day 3** Related rates<sup>21</sup>

Homework Due: 3.3 4, 18, 32, 3.5 12, 14

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<sup>12</sup>[notes/derivatives\\_intro.html](#)

<sup>13</sup>[notes/derivatives\\_function.html](#)

<sup>14</sup>[notes/derivatives\\_rules.html](#)

<sup>15</sup>[notes/midterm1\\_study\\_guide.html](#)

<sup>16</sup>[notes/derivatives\\_rules.html](#)

<sup>17</sup>[notes/derivatives\\_higher.html](#)

<sup>18</sup>[notes/derivatives\\_trig.html](#)

<sup>19</sup>[notes/chain\\_rule.html](#)

<sup>20</sup>[notes/implicit\\_differentiation.html](#)

<sup>21</sup>[notes/related\\_rates.html](#)

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

**Day 1** Linear Approximation and applications

Extreme values

Homework Due: 3.6 18, 28, 42, 3.7 12, 70

**Day 2** Mean value theorem, monotonicity

Homework Due: 3.8 6, 10, 38, 3.9 14, 16

**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>22</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)

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<sup>22</sup>[notes/midterm2\\_study\\_guide.html](https://notes/midterm2_study_guide.html)

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

**Day 1** The substitution method

**Day 2** Area between curves

**Day 3** Area between curves (cont)

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

**Day 1** TBD

**Day 2** TBD

**Day 3** TBD