Schedule

A week-by-week breakdown of the material.

Week 1 (01/09-01/13)

- **Day 1** Review of Precalculus¹
- **Day 2** Review of Precalculus (cont)²
- **Day 3** Review of Precalculus (inequalities)³ The concept of limit⁴

Week 2 (01/16-01/20)

- **Day 1** The concept of limit⁵ Limit laws⁶
- **Day 2** Continuity⁷
- **Day 3** Evaluating Limits⁸

Week 3 (01/23-01/27)

- Day 1 Trigonometric Limits⁹
- **Day 2** Limits at Infinity¹⁰
- **Day 3** Intermediate Value Theorem¹¹

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

¹notes/algebra_review.html

²notes/algebra review.html

³notes/algebra review.html

⁴notes/limit_concept.html

⁵notes/limit_concept.html

⁶notes/limit_laws.html

⁷notes/continuity.html

⁸notes/limit_evaluation.html

⁹notes/limit_trig.html

¹⁰notes/limit_infinity.html

¹¹notes/ivt.html

Week 4 (01/30-02/03)

Day 1 Introduction to derivatives¹²

Day 2 Derivative as a function¹³

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

Day 3 Derivative rules¹⁴

Homework Due: 3.1 4, 26, 34, 38

Week 5 (02/06-02/10)

Day 1 MIDTERM 1 (study guide¹⁵)

Day 2 Sick day

Day 3 Derivative rules¹⁶

Higher derivatives¹⁷

Week 6 (02/13-02/17)

Day 1 Derivatives for trigonometric functions 18

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

Day 2 Chain rule 19

Implicit differentiation²⁰

Day 3 Related rates²¹

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

¹²notes/derivatives intro.html

¹³notes/derivatives_function.html

¹⁴notes/derivatives_rules.html

¹⁵notes/midterm1_study_guide.html

¹⁶notes/derivatives_rules.html

¹⁷notes/derivatives_higher.html

¹⁸notes/derivatives_trig.html

¹⁹notes/chain_rule.html

²⁰notes/implicit differentiation.html

²¹notes/related rates.html

Week 7 (02/20-02/24)

Day 1 Linear Approximation and applications²²

Extreme values²³

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

Day 2 Extreme values²⁴

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

Day 3 Mean value theorem, monotonicity²⁵

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

Homework Due: 4.1 14, 46, 52, 4.2 18, 30

Day 2 (At conference)

Day 3 (At conference)

Week 10 (03/13-03/17)

Day 1 Applied optimization

Homework Due: 4.3 20, 26, 38, 46 Day 2

Newton's method

Day 3 Review

Week 11 (03/20-03/24)

Day 1 MIDTERM (study guide²⁶)

Day 2 Antiderivatives

Day 3 Introduction to computing areas

²²notes/linear_approx.html

²³notes/extreme values.html

²⁴notes/extreme_values.html

²⁵notes/mean_value_theorem.html

²⁶notes/midterm2_study_guide.html

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)

Week 14 (04/10-04/14)

- Day 1 TBD
- Day 2 TBD
- Day 3 TBD