Schedule

A week-by-week breakdown of the material.

Week 1 (09/04-09/08)

Day 1 Review of Precalculus[1]
Day 2 Review of Precalculus (cont)[2]
Day 3 The concept of limit[3]

Week 2 (09/11-09/15)

Day 1 Limit laws[4]

Day 2 Continuity[5]

HW Due: 2.1 6, 8, 2.2 2, 22

Day 3 Evaluating Limits[6]

Week 3 (09/18-09/22)

Day 1 Trigonometric Limits[7]

Homework Due: 2.3 12, 14, 2.4 4, 12, 52

Day 2 Limits at Infinity[8]

Day 3 Intermediate Value Theorem[9]

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

Week 4 (09/25-09/29)

Day 1 Introduction to derivatives[10]

[1] notes/algebra_review.html
[2] notes/algebra_review.html
[3] notes/limit_concept.html
[4] notes/limit_laws.html
[5] notes/continuity.html
[6] notes/limit_evaluation.html
[7] notes/limit_trig.html
[8] notes/limit_infinity.html
[9] notes/ivt.html
[10] notes/derivatives_intro.html

Day 2 Derivative as a function[11]

Homework 4 Due: 2.7 8, 20, 2.8 2, 6

Day 3 Derivative rules[12]

Homework 5 Due: 3.1 4, 26, 34, 38

Week 5 (10/02-10/06)

Day 1 Review

Day 2 **MIDTERM 1** (study guide[13])

Day 3 Derivative rules[14]

Higher derivatives[15]

Week 6 (10/09-10/13)

Day 1 Derivatives for trigonometric functions[16]

Homework 6 Due: 3.2 16, 20, 26, 36, 66

Day 2 Chain rule[17]

Implicit differentiation[18]

Day 3 Related rates[19]

Homework 7 Due: 3.3 4, 18, 32, 3.5 12, 14

Week 7 (10/16-10/20)

Day 1 Linear Approximation and applications[20]

Extreme values[21]

Homework 8 Due: 3.6 18, 28, 42, 3.7 12, 70

[11] notes/derivatives_function.html
[12] notes/derivatives_rules.html
[13] notes/midterm1_study_guide.html
[14] notes/derivatives_rules.html
[15] notes/derivatives_higher.html
[16] notes/derivatives_trig.html
[17] notes/chain_rule.html
[18] notes/implicit_differentiation.html
[19] notes/related_rates.html
[20] notes/linear_approx.html
[21] notes/extreme_values.html

Day 2 Extreme values[22]

Homework 9 Due: 3.8 6, 10, 38, 3.9 14, 16

Day 3 Mean value theorem, monotonicity[23]

Week 8 (10/23-10/27)

Day 1 BREAK

Day 2 Mean value theorem, monotonicity (cont)[24]

Homework 10 Due: 4.1 14, 46, 52, 4.2 18, 30

Day 3 Graph sketching[25]

Homework 11 Due: 4.3 20, 26, 38, 46

Week 9 (10/30-11/03)

Day 1 Graph sketching[26]

Day 2 Applied optimization[27]

Homework 12 Due: 4.4 6, 24, 4.5 16, 32

Day 3 Applied optimization (cont)[28]

Week 10 (11/06-11/10)

Day 1 Newton's method[29]
Day 2 Review
Day 3 **MIDTERM** (study guide[30])

Week 11 (11/13-11/17)

Day 1 Antiderivatives[31]

Homework 13 Due: 4.6 2, 4, 8, 20, 52

[22] notes/extreme_values.html
[23] notes/mean_value_theorem.html
[24] notes/mean_value_theorem.html
[25] notes/graph_sketching.html
[26] notes/graph_sketching.html
[27] notes/applied_optimization.html
[28] notes/applied_optimization.html
[29] notes/newton.html
[30] notes/midterm2_study_guide.html
[31] notes/antiderivatives.html

Day 2 Introduction to computing areas[32]

Day 3 The definite integral[33]

Homework 14 Due: 4.7 2, 16 4.8 14, 22, 50

Week 12 (11/20-11/24)

Day 1 The definite integral (cont)[34]
Day 2 THANKSGIVING
Day 3 THANKSGIVING

Week 13 (11/27-12/01)

Day 1 Fundamental Theorem of Calculus[35]

Day 2 Fundamental Theorem of Calculus, part 2[36]

Homework 15 Due: 5.2 4, 14, 18, 40

Day 3 The substitution method[37]

Homework 16 Due: 5.3 10, 20, 38, 46

Week 14 (12/04-12/08)

Day 1 Area between curves

Homework 17 Due: 5.4 24, 28, 34, 36

Day 2 Review/Catchup

Day 3 Review (final study guide[38])

Homework 18 due: 5.6 14, 16, 38, 60, 72

[32] notes/computing_areas.html
[33] notes/definite_integral.html
[34] notes/definite_integral.html
[35] notes/fundamental_theorem_calculus.html
[36] notes/fundamental_theorem_calculus.html
[37] notes/substitution.html
[38] notes/midterm3_study_guide.html