Schedule

A week-by-week breakdown of the material.

Week 1 (01/08-01/12)

Day 1 Sequences (11.1). Limit of sequence. Limit Laws[1]

Day 2 Review of Calc 1, Calc2[2]

Day 3 Review of Calc 1, Calc2

Week 2 (01/15-01/19)

Day 1 Catchup

Day 2 Infinite Series (11.2)[3]

HW 1 Due: 11.1 16, 26, 48, 70

Day 3 Positive Terms series (11.3)[4]

Week 3 (01/22-01/26)

Day 1 Absolute vs Conditional Convergence (11.4)[5]

HW 2 Due: 11.2 12, 14, 18, 30, 34

Day 2 Ratio and Root tests (11.5)[6]

Series tests review.

HW 3 Due: 11.3 8, 10, 24, 40

Day 3 Power Series (11.6)[7]

HW 4 Due: 11.4 12, 22, 26, 30

[1] notes/sequences.html
[2] notes/calc_review.html
[3] notes/series_intro.html
[4] notes/series_positive.html
[5] notes/series_conditional.html
[6] notes/series_root.html
[7] notes/series_power.html

Week 4 (01/29-02/02)

Day 1 Taylor Series (11.7)[8]

Day 2 Taylor Series (11.7) cont[9]

HW 5 Due: 11.5 6, 10, 16, 24, 40

Day 3 Review

Week 5 (02/05-02/09)

Day 1 **Midterm 1** (chapter 11, study guide[10])

Day 2 Vectors in the Plane (13.1)[11]

HW 6 Due: 11.6 6, 10, 16, 20, 40

Day 3 Vectors in the Space (13.2). Equations for lines in space.[12]

HW 7 Due: 11.7 8, 12, 32, 38

Week 6 (02/12-02/16)

Day 1 Dot product and angles (13.3).[13]

HW 8 Due: 13.1 12, 14, 20, 34, 46

Day 2 Cross product (13.4).[14]

HW 9 Due: 13.2 14, 20, 26, 30, 35, 52

Day 3 Equations for planes (13.5).[15]

HW 10 Due: 13.3 10, 18, 30, 38, 50

Week 7 (02/19-02/23)

Day 1 Vector-valued functions (14.1).[16]

HW 11 Due: 13.4 14, 20, 30, 34, 44

[8] notes/series_taylor.html
[9] notes/series_taylor.html
[10] notes/midterm1_study_guide.html
[11] notes/vectors.html
[12] notes/vectors_space.html
[13] notes/dot_product.html
[14] notes/cross_product.html
[15] notes/plane_equations.html
[16] notes/vector_valued_functions.html

Day 2 Calculus of vector-valued functions (14.2).[17]

HW 12 Due: 13.5 8, 18, 22, 28, 34

Day 3 Conference

Week 8 (02/26-03/02)

BREAK

Week 9 (03/05-03/09)

Day 1 Arc Length (14.3).[18]

Day 2 Curvature (14.4). Normal vectors.[19]

Day 3 Functions of multiple variables (15.1). Level curves.[20]

HW 13 Due: 14.2 6, 10, 18, 26, 32, 42

Week 10 (03/12-03/16)

Day 1 Limits and Continuity in several variables (15.2).[21]

Day 2 Partial Derivatives (15.3).[22]

HW 14 Due: 14.3 4, 8, 24, 14.4 10, 12

Day 3 Differentiability (15.4). Linear Approximation.[23]

Week 11 (03/19-03/23)

Day 1 Gradient. Directional derivatives (15.5)[24]

Day 2 Review

Day 3 **Midterm 2** (chapters 13, 14, study guide[25])

[17] notes/vector_valued_calculus.html
[18] notes/arc_length_curvature.html
[19] notes/arc_length_curvature.html
[20] notes/multiple_variables.html
[21] notes/limits_continuity.html
[22] notes/partial_derivatives.html
[23] notes/differentiability.html
[24] notes/gradient.html
[25] notes/midterm2_study_guide.html

Week 12 (03/26-03/30)

Day 1 Chain rule (15.6).[26]

HW 15 Due: 15.1 20, 28, 30, 32, 36

HW 16 Due: 15.2 12, 14, 22, 24

Day 2 Optimization (15.7).[27]

HW 17 Due: 15.3 4, 10, 18, 32, 58

HW 18 Due: 15.4 6, 12, 14, 16, 26

Day 3 Lagrange Multipliers (15.8).[28]

HW 19 Due: 15.5 6, 10, 24, 32, 36

HW 20 Due: 15.6 2, 8, 12, 16, 26

Week 13 (04/02-04/06)

Day 1 Integration in two variables (16.1).[29]

Day 2 Integration over more general regions (16.2).[30]

Day 3 Integrals in Polar Coordinates (16.4).[31]

Week 14 (04/09-04/13)

Day 1 Change of variables (16.6).[32]

Day 2 Review

Day 3 Catchup

[26] notes/chain_rule.html
[27] notes/optimization.html
[28] notes/lagrange_mults.html
[29] notes/multiple_integrals.html
[30] notes/integrals_general.html
[31] notes/integrals_polar.html
[32] notes/integrals_change_variables.html