Schedule

A week-by-week breakdown of the material.

Week 1 (01/11-1/15)

Day 1 Introduction
Day 2 Sequences (11.1). Limit of sequence. Limit Laws[1]
Day 3 Sequences (11.1). Limit of sequence. Limit Laws (cont)[2]
Day 4 Sequences (cont, 11.1). Bounded Sequences[3]

Week 2 (01/18-01/22)

Day 1 Infinite Series (11.2). Introduction[4]
Day 2 Infinite Series (11.2). Geometric Series. Divergence Test[5]
Day 3 Positive Terms series (11.3)[6]
Day 4 Positive Terms series (11.3), comparison and limit comparison tests[7]

Week 3 (01/25-01/29)

Day 1 Absolute vs Conditional Convergence (11.4)[8]
Day 2 Absolute vs Conditional Convergence (11.4)[9]
Day 3 Ratio and Root tests (11.5)[10]
Day 4 Power Series (11.6).

Week 4 (02/01-02/05)

Day 1 Taylor Series (11.7).
Day 2 Chapter 11 Review/Catchup.
Day 3 Vectors in the Plane (13.1).
Day 4 Vectors in the Plane (13.1, cont).

[1] notes/sequences.html
[2] notes/sequences.html
[3] notes/sequences_bounded.html
[4] notes/series_intro.html
[5] notes/series_intro.html
[6] notes/series_positive.html
[7] notes/series_positive.html
[8] notes/series_conditional.html
[9] notes/series_conditional.html
[10] notes/series_root.html

Week 5 (02/08-02/12)

Day 1 Vectors in the Space (13.2). Equations for lines in space.
Day 2 Dot product and angles (13.3).
Day 3 Dot product and angles (cont, 13.3). Projections.
Day 4 **Midterm 1**

Week 6 (02/15-02/19)

Day 1 Cross product (13.4).
Day 2 Equations for planes (13.5).
Day 3 Equations for planes (cont, 13.5).
Day 4 Polar, Cylindrical and Spherical Coordinates (12.3, 13.7).

Week 7 (02/22-02/26)

Day 1 Vector-valued functions (14.1).
Day 2 Limits, derivatives, integrals for vector-valued functions (14.2). Derivative as tangent vector.
Day 3 Arc Length (14.3).
Day 4 Curvature (14.4). Normal vectors.

Week 8 (03/07-03/11)

Day 1 Functions of several variables (15.1). Level curves.
Day 2 Limits and Continuity in several variables (15.2).
Day 3 Partial Derivatives (15.3).
Day 4 Differentiability (15.4). Linear Approximation.

Week 9 (03/14-03/18)

Day 1 Gradient, Directional derivatives (15.5).
Day 2 Gradient, Directional derivatives (15.5, cont).
Day 3 Review.
Day 4 **Midterm 2**

Week 10 (03/21-03/25)

Day 1 Chain rule (15.6).
Day 2 Optimization (15.7).
Day 3 Optimization (cont, 15.7).
Day 4 Lagrange Multipliers (15.8).

Week 11 (03/28-04/01)

Day 1 Integration in two variables (16.1).
Day 2 Integration over more general regions (16.2).
Day 3 Integration over more general regions (cont, 16.2).
Day 4 Integrals in 3 dimensions (16.3).

Week 12 (04/04-04/08)

Day 1 Integrals in Polar, Cylindrical, Spherical coordinates (16.4).
Day 2 Change of variables (16.6).
Day 3 Change of variables (cont, 16.6).
Day 4 Catchup

Week 13 (04/11-04/15)

Day 1 Catchup
Day 2 Catchup
Day 3 Catchup
Day 4 Catchup