

MATH 251
Schedule of Lectures
Stewart *Calculus Early Transcendentals* 6e

CLASS	SECTIONS grouped by topic	LECTURES
1	12.1	Three Dimensional Coordinate System
2	12.2	Vectors
3	12.3	The Dot Product
4	12.4	The Cross Product
5	12.5	Equations of Lines and Planes
6	12.6	Cylinders and Quadric Surfaces
7	12.7	Cylindrical and Spherical Coordinates
8	13.1	Vector Functions and Space Curves
9	13.2	Derivatives and Integrals of Vector Functions
10	13.3	Arc Length and Curvature
11	13.4	Motion in Space
12	REVIEW	
13	MIDTERM 1	
14	14.1	Functions of Several Variables
15	14.2	Limits and Continuity
16	14.3	Partial Derivatives
17	14.4	Tangent Planes and Linear Approximations
18	14.5	The Chain Rule
19	14.6	Directional Derivatives and the Gradient Vector
20	14.7	Maximum and Minimum Values
21	14.8	Lagrange Multipliers and Constrained Maximum-Minimum Problems
22	15.1	Double Integrals over Rectangles
23	REVIEW	
24	MIDTERM 2	
25	15.2	Iterated Integrals
26	15.3	Double Integrals over General Regions
27	15.4	Double Integrals in Polar Coordinates
28	15.5	Applications of Double Integrals
29	15.6	Surface Area
30	15.7	Triple Integrals
31	15.8	Integration in Cylindrical and Spherical Coordinates
32	15.9	Change of Variables in Multiple Integrals
33	16.1	Vector Fields
34	16.2	Line Integrals
35	16.3	The Fundamental Theorem for Line Integrals
36	16.4	Green's Theorem
37	REVIEW	