MATH 10B Calculus of Several Variables II

Textbook: Vector Calculus by Marsden and Tromba, 6E.

Suggested number of 50-minute lectures:

1.0 lecture:	5.1 Introduction (to double integral as volumes.)
1.0 lecture:	5.2 The Double Integral Over a Rectangle
1.5 lectures:	5.3 The Double Integral Over More General Regions 5.4 Changing the Order of Integration
2.0 lectures:	5.5 The Triple Integral
2.0 lectures:	6.1 The Geometry of Maps from R^2 to R^2
4.0 lectures:	6.2 The Change of Variables Theorem
0.5 lecture:	7.1 The Path Integral
1.5 lectures:	7.2 Line Integrals
2.0 lectures:	7.3 Parametrized Surfaces
1.5 lectures:	7.4 Area of a Surface 7.5 Integrals of Scaler Functions over Surfaces
1.0 lecture:	7.6 Surface Integrals of Vector Fields
2.0 lectures:	8.1 Green's Theorem
3.0 lectures:	8.2 Stokes' Theorem
2.0 lecture:	8.3 Conservative Fields
3.0 lecture:	8.4 Gauss' Theorem

Sections Omitted:

6.3 Applications

6.4 Improper Integrals

7.7 Application to Differential Geometry, Physics, and Forms of Life

8.5 Differential Forms