Math 10B, <u>Vector Calculus</u>, by Susan Colley

Chapter 5, Multiple Integrals (10 lectures)
5.1 Introduction: Areas and Volumes
5.2 Double Integrals
5.3 Changing the Order of Integration
5.4 Triple Integrals
5.5 Change of Variables

Chapter 6, Line Integrals (7 lectures)
6.1 Scalar and Vector Line Integrals
6.2 Green's Theorem
6.3 Conservative Vector Fields

Chapter 7, Surface Integrals and Vector Analysis (10 lectures)
7.1 Parameterized Surfaces
7.2 Surface Integrals
7.3 Stokes and Gauss's Theorem
7.4 Further Vector Analysis; Maxwell's Equations

Note—Instructors are urged to consider assigning a substantial number of the true/false problems that appear as a separate section at the end of each chapter.

Left out "optional Sections"
5.6 Applications of Integration