MATH 2414. CALCULUS II

Thomas' Calculus by George Thomas, Maurice Weir, Joel Hass and Frank Giordano (Eleventh Edition)

Textbook Sections

6.4 Moments and Centers of Mass
6.6 Work
6.7 Fluid Pressures and Forces
7.1 Inverse Functions and Their Derivatives
7.2 Natural Logarithms
7.3 The Exponential Function
7.4-7.5 Other Bases and Exponential Growth and Decay
7.7 Inverse Trigonometric Functions
7.8 Hyperbolic Functions
8.1 Basic Integration Formulas
8.2 Integration by Parts
8.3 Integration of Rational Functions by Partial Fractions
8.4 Trigonometric Integrals
8.5 Trigonometric Substitutions
8.6 Integral Tables and Computer Algebra Systems (Optional)
8.8 Improper Integrals
10.4 Conics and Parametric Equations; The Cycloid
10.5 Polar Coordinates
10.6 Graphing in Polar Coordinates
11.1 Sequences
11.2 Infinite Series
11.3 The Integral Test
11.4 Comparison Tests
11.5 The Ratio and Root Tests
11.6 Alternating Series, Absolute and Conditional Convergence
11.7 Power Series
11.8 Taylor and Maclaurin Series
11.9 Convergence of Taylor Series; Error Estimates
11.10 Applications of Power Series