16 02 Calculus II Spring 1997

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ext: Thoams & Finney, Calculus, 9th edition
ecommendation: keep this text

apter 6. Transcendental Functions
1 Inverse Functions and Their Derivatives
2 Natural Logarithms
3 The Exponential Function
4 a^x and log_a(x)
5 Growth and Decay
6 L'Hopital's Rule
7 Relative Rates of Growth (Covered Cursorily)
8 Inverse Trigonometric Functions
9 Derivatives of Inverse Trigonometric Functions; Integrals
10 Hyperbolic Functions
11 First Order Differential Equations

apter 7. Techniques of Integration
1 Basic Integration Formulas (Responsible for, not covered in class)
2 Integration by Parts
3 Partial Fractions
4 Trigonometric Substitutions
5 Integral Tables (Same as 7.1)
6 Improper Integrals

apter 8. Infinite Series
3 Infinite Series
4 The Integral Test for Series of Nonnegative Terms
5 Comparison Tests for Series of Nonnegative Terms
6 The Ratio and Root Tests for Series of Nonnegative Terms
7 Alternating Series, Absolute and Conditional Convergence
8 Power Series
9 Taylor and Maclaurin Series
10 Convergence of Taylor Series; Error Estimates
11 Applications of Power Series

apter 9. Conic Section, Parametrized Curves, and Polar Coordinates
1 Conic Sections and Quadratic Equations (If Time Permits)
2 Classifying Conic Sections by Eccentricity (If Time Permits)
3 Quadratic Equations and Rotations (If Time Permits)
4 Parameterizations of Plane Curves
5 Calculus with Parameterized Curves
6 Polar Coordinates
7 Graphing in Polar Coordinates
8 Polor Equations for Conic Sections (If Time Permits)
9 Integration in Polar Coordinates