MATH 22 Calculus for Business

Textbook: Brief Calculus: An Applied Approach by Larson, 10E.

Suggested number of 50-minute lectures:

1.0 lecture:	1.2 Graphs of Equations 1.3 Lines in the Plane and Slope
1.0 lecture:	1.4 Functions
1.0 lecture:	1.5 Limits 1.6 Continuity
1.0 lecture:	2.1 The Derivative and the Slope of a Graph
1.0 lecture:	2.2 Some Rules for Differentiation
1.0 lecture:	2.3 Rates of Change: Velocity and Marginals (Marginals and business applications only.)
1.0 lecture:	2.4 The Product and Quotient Rules
1.0 lecture:	*2.5 The Chain Rule *2.6 Higher Order Derivatives
1.0 lecture:	*2.7 Implicit Differentiation
1.0 lecture:	*2.8 Related Rates
1.0 lecture:	3.1 Increasing and Decreasing Functions
1.0 lecture:	3.2 Extrema and the First Derivative Test
1.0 lecture:	3.3 Concavity and the Second Derivative Test
1.0 lecture:	*3.4 Optimization *3.5 Business and Economics Applications
1.0 lecture:	*3.6 Asymptotes
1.0 lecture:	3.7 Curve Sketching: A Summary
1.0 lecture:	3.8 Differentials and Marginal Analysis
1.0 lecture:	*4.1 Exponential Functions *4.2 Natural Exponential Functions
1.0 lecture:	4.3 Derivatives of Exponential Functions
1.0 lecture:	4.4 Logarithmic Functions
1.0 lecture:	4.5 Derivatives of Log Functions 4.6 Exponential Growth and Decay (Compound interest only)
1.0 lecture:	5.1 Antiderivatives and Indefinite Integrals

1.0 lecture: *5.2 Integration by Substitution and the General Power Rule

1.0 lecture: 5.3 Exponential and Logarithmic Integrals

1.0 lecture: 5.4 Area and the Fundamental Theorem of Calculus

1.0 lecture: 5.5 The Area of a Region Bounded by Two Graphs

1.0 lecture: *6.1 Integration by Parts and Present Value

1.0 lecture: 7.3 Functions of Several Variables

1.0 lecture: 7.4 Partial Derivatives

1.0 lecture: 7.5 Extrema of Functions of Two Variables

1.0 lecture: 7.6 Lagrange Multipliers

** Additional coverage by the teaching assistants may be necessary.*

Sections Omitted:

1.1 Cartesian Plane and the Distance Formula
5.6 The Integral as the Limit of a Sum (Riemann Sum)
6.2 Integration Table
6.3 Numerical Integration
6.4 Improper Integrals
7.1 Three-Dimensional Coordinate System
7.2 Surfaces in Space
7.7 Least Squares Regression Analysis
7.8 Double Integrals
7.9 Applications of Double Integrals