

## Math 7A Calculus for Life Sciences I

Textbook – Calculus for Biology and Medicine 4th Edition by Neuhauser

### Suggested number of 50-minute lectures:

- 2 lectures (3.1) Limits
- 1.5 lectures (3.2) Continuity
- 1.5 lectures (3.3) Limits at Infinity
- 1 lecture (3.4) Trigonometric Limits and the Sandwich Theorem
- 1 lecture (4.1) Formal Definition of the Derivative
- 1 lecture (4.2) Properties of the Derivative
- 1 lecture (4.3) The Power Rule and Basic Rules of Differentiation
- 2 lectures (4.4) The Product and Quotient Rules
- 1 lecture (4.5) The Chain Rule
- 1.5 lectures (4.6) Implicit Differentiation (Includes Related Rates)
- 0.5 lecture (4.7) Higher Derivatives
- 1 lecture (4.8) Derivatives of Trigonometric Functions
- 1 lecture (4.9) Derivatives of Exponential Functions
- 2 lectures (4.10) Derivatives of the Inverse, Logarithmic, and Inverse Tangent Functions
- 2.5 lectures (5.1) Extrema and The Mean Value Theorem
- 1.5 lectures (5.2) Monotonicity and Concavity
- 1.0 lecture (5.3) Extrema and Inflection Points
- 1.5 lectures (5.5) L'Hopital's Rule
- 1.5 lectures (5.6) Graphing and Asymptotes