

## Math 7A Calculus for Life Sciences I

Textbook – Calculus for Biology and Medicine 3<sup>rd</sup> 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) The Sandwich Theorem and Some Trigonometric Limits

2 lectures – (4.1) Formal Definition of the Derivative

1 lecture – (4.2) The Power Rule and Basic Rules of Differentiation

2 lectures – (4.3) The Product and Quotient Rules

3 lectures – (4.4) The Chain Rule, Implicit Differentiation, Related Rates, and Higher Derivatives

1 lecture – (4.5) Derivatives of Trigonometric Functions

1 lecture – (4.6) Derivatives of Exponential Functions

2 lectures – (4.7) Derivatives of Inverse Functions, Log Functions, and Inverse Tangent Functions

2.5 lectures – (5.1) Extrema and The Mean Value Theorem

1.5 lectures – (5.2) Monotonicity and Concavity

2.5 lectures – (5.3) Extrema, Inflection Points, and Graphing

1.5 lectures – (5.5) L'Hopital's Rule