

## Math 151 – Weekly Schedule

Textbook: Calculus -- Texas A&M University, Custom Edition, by Stewart

### Week 1

- Appendix J.1 – Vectors
- Appendix J.2 – The Dot Product

### Week 2

- Appendix J.3 – Vector Functions and Parametric Curves
- Section 1.5 – Inverse Trigonometric Functions only
- Section 2.2 – The Limit of a Function

### Week 3

- Section 2.3 – Calculating Limits Using the Limit Laws
- Section 2.5 – Continuity
- Section 2.6 – Limits at Infinity; Horizontal Asymptotes

### Week 4

- Section 2.7 – Derivatives and Rates of Change
- Section 2.8 – The Derivative as a Function
- Section 3.1 – Derivatives of Polynomial and Exponential Functions

### Week 5

- Section 3.2 – The Product and Quotient Rules
- Section 3.3 – Derivatives of Trigonometric Functions (exclude trigonometric limits)
- **Exam 1 (Covering through Section 2.8)**

### Week 6

- Section 3.4 – The Chain Rule
- Section 3.5 – Implicit Differentiation (includes derivatives of inverse trig functions)
- Section 3.6 – Derivatives of Logarithmic Functions

### Week 7

- Appendix K.1 – Derivatives of Vector Functions
- Appendix K.2 – Slopes and Tangents to Parametric Curves
- Section 3.7 – Rates of Change in the Natural and Social Sciences
- Section 3.8 – Exponential Growth and Decay

### Week 8

- Section 3.9 – Related Rates
- Section 3.10 – Linear Approximations and Differentials

### Week 9

- Section 4.1 – Maximum and Minimum Values
- **Exam 2 (Covering through Section 3.10)**

### Week 10

- Section 4.2 – The Mean Value Theorem
- Section 4.3 – How Derivatives Affect the Shape of a Graph
- Section 4.4 – Indeterminate Forms and L'Hospital's Rule

**Week 11**

- Section 4.4 continued
- Section 4.7 – Optimization Problems
- Section 4.9 – Antiderivatives

**Week 12**

- Section 5.1 – Areas and Distances
- Section 5.2 – The Definite Integral (includes sigma notation and Riemann sums)
- Section 5.3 – The Fundamental Theorem of Calculus

**Week 13**

- Section 5.3 continued
- **Exam 3 (Covering through Section 5.2)**
- Thanksgiving break in the Fall semester

**Week 14**

- Section 5.4 – Indefinite Integrals and the Net Change Theorem
- Section 5.5 – The Substitution Rule

**Week 15**

- Review and Final Exams