

**Dr. Mann's M408C Summer 2012 Differential and Integral Calculus**

Date	Text Sections	Concepts
11-Jun	1.5	Exponential Functions
12-Jun	1.6	Inverse Functions and Logarithms
13-Jun	2.1-2.2	The Tangent and Velocity Problems; The Limit of a Function
14-Jun	2.2-2.3	Calculating Limits Using the Limit Laws
18-Jun	2.4-2.5	The Precise Definition of a Limit; Continuity
19-Jun	2.6	Limits at Infinity; Horizontal Asymptotes
20-Jun	2.7, 2.8	Derivatives and Rates of Change; The Derivative of a Function
21-Jun	Review	Functions; Limits & Derivatives
25-Jun	<b>Exam 1</b>	<b>Functions; Limits &amp; Derivatives</b>
26-Jun	3.1	Derivatives of Polynomials and Exponential Functions
27-Jun	3.2	The Product and Quotient Rules
28-Jun	3.3	Derivatives of Trigonometric Functions
2-Jul	3.4-3.5	The Chain Rule; Implicit Differentiation
3-Jul	3.5-3.6	Derivatives of Logarithmic Functions
4-Jul	<b>UT Holiday</b>	
5-Jul	3.6-3.7	Rates of Change in the Natural and Social Sciences
9-Jul	3.9, 3.11	Related Rates; Hyperbolic Functions
10-Jul	4.1	Maximum and Minimum Values
11-Jul	4.2, 4.3	The Mean Value Theorem; How Derivatives Affect the Shape of a Graph
12-Jul	Review	Differentiation Rules; Applications of Differentiation

16-Jul	<b>Exam 2</b>	<b>Differentiation Rules; Applications of Differentiation</b>
17-Jul	4.4	Indeterminate Forms and L'Hospital's Rule
18-Jul	4.5	Summary of Curve Sketching
19-Jul	4.9	Antiderivatives
23-Jul	5.1	Areas and Distances
24-Jul	5.2	The Definite Integral
25-Jul	5.3	The Fundamental Theorem of Calculus
26-Jul	5.4	Indefinite Integrals and the Net Change Theorem
30-Jul	5.5	The Substitution Rule
31-Jul	6.1	Areas between Curves
1-Aug	6.2	Volume
2-Aug	Review	Integrals; Applications of Differentiation & Integration
6-Aug	<b>Exam 3</b>	<b>Integrals; Applications of Differentiation &amp; Integration</b>
7-Aug	7.1	Integration by Parts
8-Aug	7.2, 7.3	Trigonometric Integrals; Trigonometric Substitution
9-Aug	7.4, 7.5	Integration of Rational Functions by Partial Fractions; Strategy for Integration
11-Aug	<b>Final Exam</b>	<b>All Topics</b>