

DEPARTMENT OF MATHEMATICS  
SYLLABUS

Course # & Name: Math 21A : Differential Calculus

Recommended Text(s) & Price: Stein & Barcellos, 5th Edition

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Lecture(s)	Sections	Comments/Topics
1/2	2.1	Functions
1/2	2.2	Functions
3/4	2.3	Limit of a Function
3/4	2.4	Computation of Limits
3/4	2.5	Asymptotes
3/4	2.7	Special Limits
2	2.8	Continuity; Intermediate Value Theorem
1	2.9	Precise Definition of Limit
1	2.10	Precise Definition of Limit
2/3	3.1	Motivating the Derivative
2/3	3.2	The Derivative
2/3	3.3	The Derivative and Continuity
1	3.4	Rules for Differentiation
1	3.5	Differentiation of Trig Functions
1	3.6	Chain Rule
1	4.1	Rolle's and Mean value Theorem
2/3	4.2	Derivatives and

		Graphs
2/3	4.3	Constant Acceleration
2/3	4.5	Concavity and Graphs
2	4.7	Extrema Problems
1	4.8	Implicit Differentiation
1	4.9	The Differential
1	4.4	Related Rates
1/2	6.1	Logarithms
1/2	6.2	The Number e
1	6.3	Differentiation of Logarithmic Functions
1/2	6.4	One-to-One Functions and Inverses
1/2	6.5	Differentiation of Exponential Functions
1	6.6	Differentiation of Inverse Trig Functions
1	6.8	L'Hopital's Rule

#### Additional Notes:

This schedule presents 26 lecture days. This leaves time for 2 or 3 hour exams and 1 or 2 flex days.

