

**Math 2A suggested syllabus  
2016-17 academic year  
(based on 29 lectures)**

**Text:** Stewart, *Calculus: Early Transcendentals* or *Single Variable Calculus: Early transcendentals*, 8th Edition or UCI Custom Edition, 8th Edition.

Lecture	Section	Topic
1	1.1, 1.2, 1.3	Four ways to represent a function, Mathematical models, Transformations of graphs
2	1.4	Exponential Functions. Start 1.5.
3	1.5	Inverse Functions and logarithms
4	2.1, 2.2	Tangent and Velocity Problems, Limit of a Function
5	2.3	Calculating Limits from Limit Laws
6	2.5	Continuity
7	2.6	Limits at Infinity, Horizontal Asymptotes
8	2.7	Derivative and Rate of change
9	2.8	Derivative as a function
10		Review
11		<b>Midterm # 1</b>
12	3.1, 3.2	Derivative of a Polynomial and Exponential Function, Product and Quotient Rules
13	3.2, 3.3	Derivative of Trigonometric Functions
14	3.4	Chain Rule
15	3.5	Implicit Differentiation
16	3.6, 3.8	Derivative of Logarithm Functions
17	3.8, 3.9	Exponential Growth and Decay
18	3.9	Related Rates
19	3.10	Linear Approximation and Differentials, Review
20		<b>Midterm # 2</b>
21	4.1	Maximum and Minimum Values
22	4.2	Mean Value Theorem
23	4.3	How derivatives affect the shape of a graph
24	4.4	Intermediate Forms and L'Hospital's rule
25	4.5	Curve Sketching
26	4.7	Optimization
27	4.9	Antiderivatives
28		<i>Catch-up and Review</i>
29		Review for final

In case of a quarter with 28 lectures, skip the "Catch-up and review" day prior to the final.