Math 2A(Summer) Suggested Syllabi

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

LECTURE	SECTION	TOPIC(S)
1	1.1, 1.2, 1.3	Course Introduction, Four ways to represent a function, Mathematical models, Transformations of graphs
2	1.4,1.5, 1.6	Exponential Functions, Inverse Functions and Logarithms, Inverse Trigonometric Functions
3	2.1, 2.2, 2.3	Tangent and Velocity Problems, Limit of a Function, Calculating Limits from Limit Laws
4	2.5, 2.6	Continuity, Limits at Infinity, Horizontal Asymptotes
5	2.7, 2.8	Derivative and Rate of Change, Derivative as a function
6	3.1, 3.2	Derivative of a Polynomial and Exponential Function, Product and Quotient Rules
7	3.3, 3.4	Derivative of Trigonometric Functions, Chain Rule
8	3.5, 3.6	Implicit Differentiation, Derivative of Logarithm Functions
9		**Midterm**
	3.8	Exponential Growth and Decay
10	3.9, 3.10	Related Rates, Linear Approximation and Differentials, Review
11	4.1, 4.2	Maximum and Minimum Values, Mean Value Theorem
12	4.3, 4.4	How derivatives affect the shape of a graph, Intermediate Forms and L'Hospital's rule
13	4.5	Curve Sketching
14	4.7	Optimization
15	4.9	Antiderivatives
		Review