

List of Lessons with Section # and Topics
MA 165 Fall 2024

Lesson	Section #	Topics
1	1.3	Exponential and Logarithmic Functions
2	1.4	Trigonometric Functions and Their Inverses
3	2.1, 2.2	Idea of limits, Definition of limits
4	2.3	Computing the limits
5	2.4, 2.5	Infinite limits, limits at infinity
6	2.6	Continuity
7	3.1	Introducing the Derivative
8	3.2	Derivative as a function
9	3.3, 3.4	Rules of Differentiation
10	3.5	Derivatives of Trigonometric Functions
11	3.6	Derivatives as Rate of Change
	3.7	Chain Rule Part I
12	3.7	Chain Rule Part II
13	3.8	Implicit Differentiation
14	3.9	Derivatives of Logarithmic and Exponential Functions
15	3.9	Derivatives of the Functions of the form $f(x)^{g(x)}$
16	3.10	Derivatives of the Inverse Trigonometric Functions
17	3.11	Related Rates, Part I
18	3.11	Related Rates, Part II
19	4.1	Maxima & Minima
20	4.2	Mean Value Theorem
	4.3	What derivatives tell us Part I
21	4.3	What derivatives tell us Part II
22	4.4	Graphing Functions
23	4.5	Optimization Problem, Part I
24	4.5	Optimization Problem, Part II
25	4.6	Linear Approximation and Differentials
26	4.7	L'Hospital's Rule
27	4.9	Antiderivatives
28	5.1	Approximating the area under curves (Riemann Sum)
29	5.2	Definite Integrals
30	5.3	Fundamental Theorem of Calculus
31	5.4	Working with Integrals
32	5.5	Substitution Rules
33	7.2	Exponential Models (Growth & Decay)