

List of Lessons with Section # and Topics
MA 166 Spring 2025

Lesson	Section #	Topics
1	13.1	Vectors in the plane
	13.2	Vectors in the 3-dimesnional space
2	13.1	Geometry in the plane
	13.2	Geometry in the 3-dimenaional space
	13.5	Lines and planes in space
3	13.3	Dot Products
4	13.4	Cross Products
		Application of the cross products
5	6.2	Area of the region between curves
6	6.3	Volume by slices, Washer method
7	6.4	Volume by shells, Shell method
8	6.5	Lengths of curves
	6.6	Surface area
9	6.7	Physical applications
10	8.2	Integration by parts
11	8.3	Trigonometric Integrals Part 1
12	8.3	Trigonometric Integrals Part 2
13	8.4	Trigonometric Substitution Part 1
14	8.4	Trigonometric Substitution Part 2
15		Summary of Trig. Int. & Trig. Sub.
16	8.5	Partial Fractions Part 1
17	8.5	Partial Fractions Part 2
18	8.9	Improper Integrals
19	10.1, 10.2	Sequence and its limit
20	10.1, 10.3	Introduction to the Series (Telescoping Series)
21	10.4	Divergence Test
22	10.2	Integral Test & p -series
23	10.5	Comparison Test, Limit Comparison Test
24	10.6	Alternating Series Test
25	10.7	Ratio Test & Root Test
26	10.8	Choose a convergence test (general theory)
27	11.1, 11.3	Taylor Series Part 1 (Approximating functions with polynomials)
28	11.1, 11.3	Taylor Series Part 2
29	11.2	Properties of Power Series Part 1
30	11.3, 11.4	Summary of Taylor Series & Applications
31	11.2, 11.4	Properties of Power Series Part 2
32	12.2	Polar Coordinates (Basics)
33	12.3	Calculus in Polar Coordinates Part 1
34	12.3	Calculus in Polar Coordinates Part 2
35	12.2, 12.3	Summary of Polar Coordinates Complex Numbers