

Math 2B Suggested Syllabus (based on 29 lectures)

Text: Stewart, *Calculus: Early Transcendentals* or *Single Variable Calculus: Early transcendentals*. 7th or 8th Edition or UCI Custom Edition, 7th or 8th Edition.

Lecture	Section	Topic
1	4.9	Antiderivatives (Review)
2	5.1	Areas and Distances
3	5.2	Definite Integral
4	5.3	Fundamental theorem of calculus
5	5.4	Indefinite integrals and Net change theorem
6	5.5	Substitution rule
7	6.1, 6.2	Area between curves; Start 6.2
8	6.2	Volumes cont.
9	6.5	Average value of a function; Review
10		Midterm # 1
11	7.1	Integration by Parts
12	7.2	Trigonometric Integrals
13	7.3	Trigonometric Substitution
14	7.4	Integration by Partial Fractions
15	7.5	Strategy for Integration
16	7.8	Improper Integrals
17	8.1	Review of integration techniques; Arc Length
18	11.1	Sequences
19		Review
20		Midterm # 2
21	11.2	Series
22	11.3, 11.4	Integral test and estimates of sums; Comparison Test
23	11.5, 11.6	Alternating series test; Absolute convergence (start 11.6)
24	11.6	Ratio test and Root test
25	11.7	Strategy for Testing Series
26	11.8	Power series
27	11.9	Representing functions as Power series
28	11.10	Taylor series and Maclaurin series
29		Review

In case of a quarter with 28 lectures, you may skip the review prior to midterm 2 (students get a review of integration techniques before learning 8.1).