

Mathematics 8 — Term Syllabus

Fall 2007 — based on Stewart 6e

Date	Reading in Text — Brief Description
1 9/26	12.1: Sequences
2 9/28	12.2: Series
3 10/1	8.8 (through Example 4, p. 547): Improper Integrals
4 10/3	12.3 (through Example 4, p. 736), 12.4: Integral Test, Comparison Tests
5 10/5	12.4, 12.5: Comparison Tests, Alternating Series
6 10/8	12.5, 12.6 (up to middle of p. 754): Alternating Series, Ratio Test
7 10/10	12.8: Power Series
8 10/12	12.9: Functions as Power Series
9 10/15	12.10: Taylor and MacLaurin Series
10 10/17	12.10 (skip multiplication and division of power series): Taylor and MacLaurin Series
11 10/19	8.1: Review Substitution and Integration by Parts
12 10/22	8.2 (up to boxed formula on p. 501): Trigonometric Integrals
10/22	EXAM First midterm exam 5:00 – 7:00 pm, Filene Auditorium, Moore Hall
13 10/24	8.3: Trigonometric Substitutions
14 10/26	13.1, 13.2: Three Dimensional Coordinates and Vectors
15 10/29	13.3: Dot Products
16 10/31	13.4: Cross Products
17 11/2	13.5: Equations of Lines and Planes
18 11/5	14.1 (up to middle of p. 856), 14.2 (up to Integrals, p. 863): Vector Functions, Space Curves; Derivatives of Vector Functions
19 11/7	14.3 (up to curvature, p. 867), 14.4 (through middle of p. 878): Arc Length; Motion in Space
20 11/9	15.1, 15.2: Functions of Several Variables; Limits and Continuity
21 11/12	15.3 (up to partial differential equations, p. 922): Partial Derivatives
11/13	EXAM Second midterm exam 5:00 – 7:00 pm, Filene Auditorium, Moore Hall
22 11/14	15.4: Tangent Planes and Linear Approximations
23 11/16	15.5 (up to implicit differentiation, p. 941): The Chain Rule
24 11/19	15.6: The Directional Derivative and Gradient
	THANKSGIVING BREAK: 11/20 – 11/25
25 11/26	15.6: The Directional Derivative and Gradient
26 11/28	15.7: Maxima and Minima
27 11/30	15.7: Maxima and Minima
28 12/3	(Last Class)
12/7	FINAL EXAM , 11:30 – 2:30