Mathematics 8 – Term Syllabus

Winter 2007 – based on Stewart 5^e

Day Number	Date of Lecture	Reading in Text - Brief Description
1	1/5	8.1: Review Substitution and Integration by Parts
	1/6	(Scheduled Saturday Class) No Class Today
2	1/8	8.2 (up to boxed formula on p. 523): Trigonometric Integrals
3	1/9 (x-hour)	8.3: Trigonometric Substitutions
4	1/10	8.8 (through Example 4, p. 569): Improper Integrals
5	1/12	12.1: Sequences
	1/15	Dr. Martin Luther King Jr. Day: No Class Today
6	1/16 (x-hour)	12.2: Series
7	1/17	12.3, 12.4- : Series, Integral Test
8	1/19	12.4, 12.5: Comparison Tests, Alternating Series
9	1/22	12.5, 12.6 (up to middle p. 780) Alternating Series, Ratio Test
10	1/24	12.8: Power Series
11	1/26	12.9: Functions as Power Series
12	1/29	12.10: Taylor and MacLaurin Series
	1/29	EXAM First midterm exam, 5:00 - 7:00 pm, location TBA
13	1/31	12.10 (skip multiplication and division of power series): Taylor and MacLaurin Series
14	2/2	13.1, 13.2: Three Dimension Coordinates and Vectors
15	2/5	13.3: Dot Products
16	2/6 (x-hour)	13.4: Cross Products
17	2/7	13.5: Equations of Lines and Planes

Day Number	Date of Lecture	Reading in Text - Brief Description
	2/9	Winter Carnival Holiday: No Class Today
18	2/12	14.1 (up to bottom p. 888), 14.2 (up to Integrals, p. 896): Vector Functions, Space Curves; Derivatives of Vector Functions
19	2/14	14.3 (up to curvature, p. 900), 14.4 (through middle p. 910): Arc Length; Motion in Space
20	2/16	15.1, 15.2: Functions of Several Variables; Limits and Continuity
21	2/19	15.3 (up to partial differential equations, p. 953): Partial Derivatives
	2/19	EXAM Second midterm exam, 5:00 - 7:00 pm, location TBA
22	2/21	15.4: Tangent Planes and Linear Approximations
23	2/23	15.5 (up to implicit differentiation, p. 972): The Chain Rule
24	2/26	15.6: The Directional Derivative and Gradient
25	2/28	15.6: The Directional Derivative and Gradient
26	3/2	15.7: Maxima and Minima
27	3/5	15.7: Maxima and Minima
28	3/7 (Last Class)	