Syllabus and Problems
Mathematics 152, Calculus II, Honor Section
Fall Semester 2004

Text: *Calculus, Early Transcendentals*, Stewart, 5th Edition, Brooks-Cole Publishing Co.

Lecture	Date	Reading	Topics
1	9/1	6.1, 6.2	Areas (review), volumes
2	9/8	6.3	Volumes
3	9/13	6.4, 6.5	Work, average values
4	9/15	7.1	Integration by parts
5	9/20	7.2, 7.3	Trigonometric integrals, trigonometric substitutions
6	9/22	7.4, 7.5	Partial fractions, strategies for integration
7	9/27	7.7	Approximations of integrals
8	9/29	7.8	Improper integrals
9	10/4	8.1, 8.2	Arc length, surface area
10	10/6	9.1, 9.2, 9.3	Differential equations, direction fields (not Euler's method), separable equations
11	10/11	Catch up and review	
12	10/13	First exam	
13	10/18	9.3, 9.4	separable equations, exponential growth
14	10/20	11.1, 11.2	Sequences, series
15	10/25	11.2, 11.3	integral test, estimates
16	10/27	11.4	Comparison tests
17	11/1	11.5, 11.6	Alternating series, absolute convergence
18	11/3	11.6, 11.7	Ratio and root test, strategies
19	11/8	11.8	Power series
20	11/10	11.9	Representations of functions by power series
21	11/15	11.10	Taylor and Maclaurin series
22	11/17	11.10, 11.11	More Taylor and Maclaurin series, binomial series
23	11/22	Catch up and review	
24	11/29	Second exam	
25	12/1	11.12	Applications of Taylor series
26	12/6	10.1, 10.2, 10.3	Parametric curves, tangent lines, arc length, polar coordinates
27	12/8	10.5	Areas and length in polar coordinates
28	12/13	Catch up and review	

Note: This is an approximate syllabus only and because of differences in weekly schedules, some variations are to be expected.

Final Examination: Thursday, December 16, 4-7 PM

Suggested Homework Problems
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