

Syllabus and Problems

Mathematics 152, Calculus II

Fall Semester 2009

Text: *Calculus, Early Transcendentals* by Jon Rogawski, published by W. H. Freeman and Co.

Lecture	Reading	Topics
1	6.1	Introduction and review of concepts from 151
2	6.2-6.4	Volumes, Average Value
3	6.5	Work
4	7.1	Numerical integration
5	7.2	Integration by parts
6	7.3	Trigonometric integrals
7	7.4	Trigonometric substitution
8	7.6	Partial fractions
9	Review for the first exam	
10	First exam (in the usual class time and place)	
11	7.7	Improper integrals
12	8.1	Arc length and surface area
13	11.1, 11.2	Parametric equations
14	11.3, 11.4	Polar coordinates
15	9.1	Solving differential equations, part 1
16	9.2, 9.3	Solving differential equations, part 2
17	8.4	Taylor polynomials
18	10.1	Sequences
19	10.2	Summing an infinite series
20	10.3	Convergence of infinite series
21	10.4	Absolute and conditional convergence
22	Review for the second exam	
23	Second exam (in the usual class time and place)	
24	10.5	Ratio and root test
25	10.6	Power series
26	10.7	Taylor series, part 1
27	10.7	Taylor series, part 2
28	Review for Final Exam	

Note This is an approximate syllabus only and some variations are to be expected.

Final Examination Wednesday, December 16, 2008, 4-7 PM. Locations will be announced.

Please see **OVER** for suggested homework problems.

Suggested Homework Problems for Mathematics 152

Section 6.1:	3, 4, 16, 17, 26, 27, 28, 47
Section 6.2:	1, 2, 5, 6, 13, 14, 45, 46
Section 6.3:	16, 19, 29, 30, 36, 37
Section 6.4:	12, 13, 19, 20, 23, 26
Section 6.5:	3, 6, 11, 12, 16, 17
Section 7.1:	7, 8, 13, 14, 36, 37
Section 7.2:	9, 10, 23, 24, 53, 72
Section 7.3:	3, 4, 14, 15, 40, 41
Section 7.4:	13, 14, 23, 28, 35, 36
Section 7.6:	9, 10, 17, 18, 33, 36
Section 7.7:	14, 19, 29, 32, 43, 44
Section 8.1:	7, 8, 9, 10, 38, 39
Section 8.4:	7, 8, 17, 18, 29, 30
Section 9.1:	13, 14, 29, 30, 35, 36
Section 9.2:	3, 4, 8, 9, 15, 16
Section 9.3:	2, 9
Section 10.1:	21, 22, 30, 39, 43, 46
Section 10.2:	9, 10, 15, 16, 28, 29
Section 10.3:	9, 10, 15, 16, 38, 39
Section 10.4:	5, 6, 21, 22, 23, 26
Section 10.5:	6, 11, 12, 13, 18, 23
Section 10.6:	6, 7, 19, 20, 31, 32
Section 10.7:	3, 4, 11, 12, 19, 20, 21, 22, 24, 25, 26, 41
Section 11.1:	7, 8, 19, 20, 21, 22
Section 11.2:	3, 4, 13, 14, 20, 21
Section 11.3:	3, 4, 7, 8, 14, 15
Section 11.4:	7, 8, 11, 12, 13, 14

Note Some of the sections listed above are not covered sequentially in the syllabus for the course.