(revised May, 1997)

Syllabus and Problem List for Math 152

Text *Calculus (Early Transcendentals)*, 3^{rd} ed., Brooks/Cole, by James Stewart

Session	Reading	Topics
1	5.5, 6.1	Integration by substitution, Area
2	6.2, 6.3	Volumes
3	6.3, 6.5	Volumes, Average values
4	7.1	Integration by parts
5	7.2, 7.3	Trigonometric integrals, Trigonometric substitution
6	7.4, 7.6	Partial fractions, Integration Strategies
7	7.8	Approximations for integrals
8	7.9	Improper integrals
9	8.1	Differential equations (separation of variables)
10	8.1	Differential equations (direction fields and applications)
11		**First exam**
12	10.1	Sequences
13	10.2	Series
14	10.3	Integral test, estimates
15	10.4	Comparison tests
16	10.5, 10.6	Alternating Series, Absolute convergence
17	10.6, 10.7	Ratio and root tests, Strategies
18	10.8	Power series
19	10.9	Representation of funtions by power series
20	10.10	Taylor and Maclaurin series
21	10.11, 10.12	Binomial series, applications of Taylor series
22	10.12	Applications of Talyor series
23		Catch up and Review
24		**Second exam**
25	9.1, 9.2	Parametric equations, Tangent lines
26	8.2, 9.3	Arc length
27	9.4, 9.5	Calculus in polar coordinates
28		Catch up and Review

OVER

Suggested problem list for Math 152

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Calculator A graphing calculator is required for this course. We recommend the TI-82, but any calculator with equivalent capacities can be used.

Section	Suggested problems
5.5	1, 5, 12, 21, 30, 36, 37, 41, 44, 61, 68, 74, 76, 81
6.1	2, 3, 11, 21, 22, 35, 45, 46
6.2	4, 7, 9, 17, 18, 33, 51, 55, 56, 60
6.3	2, 3, 13, 18, 35, 36
6.5	5, 10, 12
7.1	1, 4, 5, 8, 13, 14, 32, 37, 38, 41, 56
7.2	1, 6, 17, 19, 20, 54, 58
7.3	5, 7, 8, 11, 14, 36
7.4	3, 9, 11, 19, 24, 25, 39, 42, 43
7.6	1, 2, 9, 15, 20, 23, 30, 46, 49
7.8	1, 3, 4, 7, 21, 22, 29, 32
7.9	1, 2, 3, 4, 12, 13, 27, 29, 30, 51, 52
8.1	3, 4, 13, 17, 18, 19, 23, 24, 25, 26, 29, 30
8.2	5, 10, 21, 22
9.1	3, 9, 10, 13, 14, 28, 31
9.2	1, 2, 7, 12, 19, 24, 27
9.3	1, 6, 7, 9, 14, 15
9.4	4, 12, 20, 28, 47, 63, 74, 75
9.5	2, 5, 9, 17, 20, 44, 48
10.1	2, 3, 11, 12, 15, 19, 20, 24, 29 30, 46, 48, 59, 60
10.2	7, 19, 20, 25, 26, 27, 29, 40, 47, 48, 55
10.3	1, 3, 7, 9, 10, 17, 19, 22, 24, 25, 28
10.4	1, 2, 3, 6, 9, 16, 31, 33, 36
10.5	3, 4, 9, 10, 26, 27, 30, 31
10.6	1, 4, 5, 10, 17, 20, 24, 25, 33, 34, 36
10.7	1, 5, 6, 8, 15, 23, 30, 37
10.8	1, 2, 3, 9, 10, 13, 24, 33
10.9	3, 6, 11, 12, 21, 24, 25, 28, 35
10.10	2, 3, 17, 19, 20, 25, 33, 34, 37, 41, 44, 53, 54
10.11	4, 13
10.12	3, 5, 9, 10, 13, 18, 19, 22