MTH 123 FA2011
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THE COLLEGE OF STATEN ISLAND, CUNY
DEPARTMENT OF MATHEMATICS

MATH 123 – COLLEGE ALGEBRA AND TRIGONOMETRY
COURSE OUTLINE

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Text: Stewart, Redlin, Watson, Precalculus, 5th Edition, Enhanced WebAssign Edition.
        Custom edition with Chapters 1-7 and student access code for Enhanced WebAssign.
        Cengage Learning (2010).   ISBN-10: 1-1117-2463-6

Calculator: A graphing calculator is required. The TI-82 is highly recommended.

Note: Below, each lesson corresponds to a one-hour class. Homework problems must
        be submitted online using Enhanced WebAssign.

Lesson	Section	Topic	Homework Problems
1		Introduction and assessment	Maplesoft Pretest
2	1.10	Equations of lines	7, 8, 9, 11, 14, 17, 18, 19, 23, 24
3	1.10	Parallel and perpendicular lines	27, 31, 34, 35, 42
4	1.10	Applications: Slope as rate of change	61, 67, 70, 71, 72
5	2.1	Functions	6, 10, 14, 17, 21, 30
6	2.1	Functions	40, 42, 49, 66
7	2.2	Graphs of functions	3, 8, 11, 16, 24, 31, 33, 35, 38
8	2.2	Graphs of functions	57, 61, 65, 73, 74
9	2.3	Increasing and decreasing functions	2, 4, 5, 8, 12, 14
10	2.3	Average rate of change	19, 23, 29, 31
11	2.4	Transformations of functions	1, 2, 5, 7, 11, 13, 15, 16, 26
12	2.4	Even and odd functions	49, 50, 54, 63, 66
13	1.5	Review: Quadratic equations	41, 43, 45, 49, 57, 59, 61, 63
14	2.5	Quadratic functions	5, 9, 11, 13, 16, 21
15	2.5	Max/min values of quadratic functions	30, 41, 47, 52, 64
16	2.6	Modeling with functions	2, 6, 14, 20, 22, 27, 32
17	2.6	Modeling with functions	
18		Review	
19		Review	
20		**Exam 1**	
21		**Exam 1**	
22	2.7	Combining functions	6, 10, 12, 16, 19, 21, 26, 34, 51, 60
23	2.7	Composition of functions	
24	2.8	One-to-one functions	14, 19, 36, 38, 41, 47, 50, 63, 70, 79

MTH 123 FA2011
JC

25	2.8	Inverse of a function	
26	1.2 4.1	Review: Exponents and Radicals Exponential functions	16, 17, 24, 30, 39, 52, 56, 77, 81, 82
27	4.1	Compound interest	
28	4.2	Logarithmic functions	8, 14, 29, 32, 40, 54, 68, 72, 74, 80
29	4.2	Natural logarithms	
30	4.3	Laws of logarithms	7, 24, 26, 28, 34, 35, 37, 43, 46, 53
31	4.3	Logarithmic expressions	
32	4.4	Exponential equations	17, 19, 31, 33
33	4.4	Logarithmic equations	44, 47, 50, 51, 68, 69
34	4.5	Exponential growth	5, 8, 9, 10, 11
35	4.5	Radioactive decay	14, 16, 20, 21, 22
36	4.5	Logarithmic scales	30, 33, 34, 37, 38
37		Review	
38		Review	
39		**Exam 2**	
40		**Exam 2**	
41	5.1	Unit circle	12, 16, 18, 22, 23, 26, 28, 38, 42, 46
42	5.1	Reference angle	
43	5.2	Trigonometric functions	9, 28, 50, 54, 56, 60, 62, 64, 76, 82
44	5.2	Fundamental identities	
45	5.3	Graphs of sine and cosine	16, 22, 24, 28, 31, 34, 40, 42, 46, 78
46	5.3	Transformations of sine and cosine	
47	5.3	Transformations of sine and cosine	
48	5.4	Graphs of tangent and secant	8, 12, 14, 16, 18, 22, 30, 34, 42, 48
49	5.4	Transformations of tangent and secant	
50		Review	
51		Review	
52		**Exam 3**	
53		**Exam 3**	
54		Review	Maplesoft Post Test
55		Review	
56		Review	