

BARUCH COLLEGE (CUNY) - DEPARTMENT OF MATHEMATICS  
MATH 2003 SYLLABUS  
Spring 2008

Textbook: Gordon, Wang and Materowski, Applied Calculus for Business, Economics and Finance, Pearson 2007, ISBN 0-536-27880-6 or 0-536-46018-3

Graphing calculator required: Texas Instruments TI-89 or TI-92 Plus

Tutoring is available at SACC, Room 2-116, Vertical Campus, (646) 312-4830

Videos, Final Exam Review Manual and Text Errata Sheet available at the BlackBoard MTH\_2003\_ALL Blackboard Site, and at [http://www.math.baruch.cuny.edu/course\\_syllabi/2003.html](http://www.math.baruch.cuny.edu/course_syllabi/2003.html)

In most cases, Text problems can be done **by hand first**, and then **checked with your graphing calculator**. Some problems, however, can only be completed with a calculator.

Chapter 0 contains material that the student is expected to know prior to this course; topics in these five sections may be reviewed at the discretion of the instructor. Note the calculator tips in these sections should be looked at carefully.

Section	Topic	WeBWork Module	Text	Practice Final Exams
1.1	The Line	Lin	9,12, 14,17, 18, 19, 20, 29, 38, 41, 43, 71, 73. 76, 81	A4, B15, B21, C3, C25, D18, D19, D26, E4, E16
1.2	Basic Notions of Functions	BNF	19, 22, 26, 30, 43,45, 55, 57, 67, 68, 72, 74, 83, 85, 88, 91, 92, 93	A5, A8, A27, B8, B9, B22, C1, C35, D2, E2, E3
1.3	Applications of Linear Functions	ALF	4, 5, 7, 10, 12, 13 16, 19. 21, 23	A6, B31, C34, D28, E5
1.4	Quadratic Functions - Parabolas	QFA QuF CtS	13, 15, 22, 25, 27, 30, 34	A9, A21, B7, D22, E13
1.5	The Circle	Cir Cir2	10, 13, 22, 29, 32, 34	A7, B20, D12, E18
1.6	Economic Functions	EcF	8, 10, 13, 21, 28, 30, 33	A24, A32, B12, B18, B34, C13, C24, D11, D21, E15, E21, E22
1.7	More on Functions	MoF	2, 4, 5, 7, 10, 13, 15, 18, 21, 22, 24, 28, 37, 41, 44, 45, 47, 48, 49, 53, 54, 62	A3, A20, A25, A26, B6, B14, B23, B33, C2, C4, C8, C9, C11, D1, D23, D25, D30, D33, D35, E7, E11, E23, E27, E35
1.8	Regression	Reg	5, 11,14, 15	A19, A34, B29, C20, D34, E30
Chapter One Review			10, 11, 12, 21, 24, 25, 34	
2.1	Slope of a Curve (and Derivatives)	SCD	28, 29, 31, 33, 34	A22, B27, C26, E28

2.2	Derivative Rules I	DRI	3, 4, 6, 11, 13, 15, 17, 20, 21, 26, 28, 30, 34	A11, A15, A23, A31, B13, B32, C16, C27, C28, D7, D13, E1, E9, E14
2.3	Limits and Continuity	LCo	18, 20, 23, 30, 31, 33, 44, 47, 51, 58, 76, 77	A1, A2, B2, B4, B30, C6, C7, C30, D5, D17, D20, D27, E6, E8, E12, E24
2.4	Limits at Infinity, Infinite Limits and Asymptotes	LIA	14, 16, 19, 21, 23, 25, 31, 33, 35, 38	A33, B5, B11, C5, C12, D6, E17, E26, E29
2.5	Derivative Rules 2	DR2	1, 3, 4, 6, 7, 9, 12, 15, 16, 23, 27, 28	B16, B24, C10, D3, D8, E25
2.6	The Chain Rule	ChR	3, 7, 9, 13, 14, 16, 17, 20, 21, 26, 28, 30	A10, A12, A18, B10, B35, C15, C29, D10, E10
2.7	Marginal Functions and Rates of Change	MFR	1, 3, 5, 14, 16, 19, 20	A35, B17, B26, C21, C23, C32, D16, D24, D29, E33, E34
2.8	Implicit Differentiation	ImD	8, 10, 12, 15, 19, 20, 21, 22	A14, B1, C22, D4
2.10	Related Rates	ReR	8, 10, 13, 14, 20, 23	A13, A30, B3, C14, C31, D9
Chapter Two Review			11, 18, 19, 20, 21, 22	
A1	Basic Operations (Matrices)	MBO	1, 3, 5, 7, 12	A16, D15
A2	Matrix Multiplication	MMu	19, 20, 22, 24, 25, 28, 29	A28, B19, B28, C18, C19, D14, D31, D32, E19, E20, E32
A3	Gauss-Jordan Reduction	GJR	1, 3, 5, 7, 9, 11, 15, 20, 23, 25, 35	E31
A4	Inconsistent Linear Systems and Systems with Infinitely Many Solutions	ISI	2, 4, 6, 8, 10, 12, 14, 18	A17, A29, B25, C17, C33
Chapter Review A 1-4			2, 3, 5, 6, 10	