

BARUCH COLLEGE (CUNY)
Department of Mathematics
MATH 2207 SYLLABUS

Textbooks:

(1) One of the required two textbooks for this course is: Larson, Brief Calculus, an Applied Approach, Eighth Edition, Houghton Mifflin, 2009. However, you may use the previous edition (Larson and Edwards, Brief Calculus, an Applied Approach, Seventh Edition, Houghton Mifflin, 2006) by following the assignments in this sheet. There will be minor variations in the text assigned exercises; the WebWork assignments are independent of the text.

AND

(2) **EITHER** Gordon and Shane, Matrices and Systems of Linear Equations, Pearson, 2005, **OR** Collison, Systems of Equations and Matrices with the TI-89, Wiley Custom, 2000. Your Instructor will let you know which one of these texts is being used in your section,

Students should obtain the “Manual for the Uniform Final Examination.” This is available on the course’s MTH_2207_ALL Blackboard site. Hard copies of this manual are available from SACC (Student Academic Consulting Center), located on the second floor of the Vertical Campus. It also appears on SACC’s web site, www.baruch.cuny.edu/sacc.

Faculty office hours, offices and schedules are posted outside the math department office – Room 6-230 as well as on their office doors.

One of the following calculators is **required**: TI-89, TI-89 Titanium or TI-92 Plus. The TI 83 or TI 84 is **NOT** acceptable.

All Students registered in MTH 2207 are automatically included in two Blackboard sites: (1) their MTH 2207 section site, managed by their instructor and (2) the MTH_2207_ALL site managed by the department. The “ALL” site contains the final exam manual as well as the links to various course and final exam videos. (The departmental web site address is: www.baruch.cuny.edu/math/)

All Sections are required to use WebWork, the instructor will decide which of the text and practice final exam exercises to assign.

Note: Any Practice Final Exam Exercise numbered 26 or higher may be worked out using your calculator.

The following are from the Gordon Shane Text

	Topic	WebWork Module	Text	Practice Final Exams
1	Basic Matrix Operations and Multiplication	MBO	P.6: 1, 3, 4, 5, 7, 8, 9, 11, 12 P.21: 1, 3, 5, 7, 9, 10, 12, 14	A25, F21
2	Matrix Multiplication and Inverse	MMu	P.22: 18, 19, 21,22, 24, 25, 26, 27, 28	A24, B1, C20, D2, E31, F20, F23
3	Gauss Jordan and Matrix Inversion	GJR	P.39: 1,2,3,5,7,9,11,13 ,15, 19, 20 P. 41: 22,24,27,28,31,34, 35, 37,39,43	C19, E14, E15, B32, A35, B34, B35, C32, C33, D26, D27, E29, E30
4	Non Unique Systems	ISI	P.54: 1,5,7,12,17 – 20	A23, A34, C18, D1, F22, F24

The following are from the Collison Text

Lesson	Topic	WebWork Module	Text	Practice Final Exams
1	Systems of Equations and Row Operations		P.31: 1,2,3	
2	Gauss-Jordan Row Reduction	SYS	P.31: 4,5,6,7,8,9,10	A23,C18,19,D1,E14,15
3	TI-89 Usage for rref and Matrix Operations	MOP	P.31: 11 to 34 (all, both odd and even)	A24,34,B1,B32, B33, C20, D2,E31
4	Inverse Matrices and Matrix Equations	INV	P.33: 35,36,37,38,39	A25,35,B34,35,C32,C33, D26, D27,E29,30

The remaining assignments are from the Larson text listed above

	Topic	WebWork Module	Text	Practice Final Exams
5	Review of Functions Sections 1.3 and 1.4	Lin, BNF	P.65: 3,11,21,29,37,67,89, 95,99,101 P.78: 17-22 (all) 25,26,66,67,72,74 77	
6	Limits and Continuity Section 1.5 and 1.6	LCo	P.91: 1,3,5,9,11,17,19,21, 25,27,29,31,33,41,43,45,53,55, 61,71,73 P.102: 1-21 (odd), 25,27,39,41,43,D28,F25	B12, B29, A1, C23, D7, E16, F4
	Topic	WebWork Module	Text	Practice Final Exams

7	Asymptotes – Section 3.6	LIA	P. 263: 1-19 (odd), 31, 33, 35	A2, A3, B13, C24, C25, D8, E17, E18, F3, F5, D28, F25, B14
8	Derivative and Slope of a Curve Section 2.1	SCD	P.123: 5,7,9,15,19,20, 21 , 25,27, 31,32,23,40,42,51,53,55 C34	A10, A11, B21, B22, C7, D15, D16, E25, C34, E33
9	Rules for Differentiation, Section 2.2	DR1	P.135: 1-39 (odd),47,49,51, 55,63,65,66. F26	A9, B20, C6, D14, E24, F1, F6,F26
10	Rates of Change, Velocity and Marginals Product and Quotient Rules Sections 2.3 and 2.4	DR2 MFR	P.149: 3-33(odd), 41,43. A30,D34 P.161: 3,5,7,9,13,15,17,19,25, 27,29,31, 33 ,43,47,49,61,64	A21, B8, C15, F26, A30, D33, E26, E27, A6, A7, B17, B18, C3, C4, D11, D12, E21, E22, F29
11	Chain Rule and Higher Order Derivatives, Sections 2.5 and 2.6	ChR	P.172 23-45(odd), 49,55,59, 61,63,65,69,71, P.179: 1,3,5,7,9,23,35,47,49	A8, B19, C5, D13, E23, F7, F27
12	Implicit Differentiation, Section 2.7	ImD	P.186: 1,3,5,7,13,15, 19,21,25, 31,39,45	A16, B2, B4, C10, D20, E5
13	Related Rates, Section 2.8	ReR	P.194: 1,3,5,9,11,13,15,17, 19,24	A17, C11, D21, E7, F8
14	Increasing and Decreasing Functions, Section 3.1	XFS	P.213: 5,7,11,13,15,17,23,25, 29,31. B26	A12, A22, D4, E1, E12, F9, B26
15	Extrema and First derivative Test, Section 3.2	FDT	P.223 1,3,5,9,11,13,17,19,21, 23,25,29,33,47,49. A26,A32,C30,E32	A14, B11, B24, C8, C21, C22, D6, D18, E3, A26, C30, E32
16	Concavity and the Second Derivative Test, Section 3.3	CSD	P.232 1,7,9,11,13,25-35(odd), 39,41,43,51, 61,62,63,67. A27,F27	A15, B3, B25, D19, E4, E6, A27, D30
17	Curve Sketching, Summary, Section 3.7	----	P.273 7,9,15,23,27,35,36, 37, 51	A32
18	Optimization, Section 3.4	AGO	P.241: 1,3,5,7,9,11,17,18,22,33	A20, B7, B10, C14, D5, D24, E10
19	Business and Economic Applications, Section 3.5	ABE	P.252 1,5,9,11,13,15,17,21	C17, D25, E11, E13, A33, C31
20	Differentials and Derivatives of Exponentials, Sections 3.8 and 4.3	LaD DEF	P.281: 1,3,5,9,11,13,27,29, 33,37,39,40 P.314 : 1,3,5,7,9,11,15,17,19, 21, 23,25,35,44,46 B31,C26,D29,D35,E33	A13, B9, B23, C15, D17, E2, C35, A5, B16, C2, D10, E20, F2, F10, A31, B31, C26, D29, D35,
21	Derivatives of Logarithmic Functions, Section 4.5	Log	P.332: 1,3,7-23(odd),49,53, 67,69,83. F28	A4, B15, C1, D9, E19, D34, F28
22*	Antiderivatives and Integrals, Section 5.1 Integration by Substitution Sections 5.2 and 5.3	ADE Su1	P.362: 1,3,9,11,13,19,21, 25,29-37(odd),51, 55,58,63,65, 69,75 P. 372: 11,15,17,21,49,51 P. 379 : 5,19,23, 25 ,27,29,59,61	A18, B6, E8, A29, D32
23	Areas and the Fundamental Theorem Section 5.4	De1	P. 391: 3,7,9,15,17,19,23,25, 29,31,35, 37,39,61,63,65, 67, 69,71	A19, C12, C13, D22, E3, B28, C28, E34
24	Area of a Region, Consumer Surplus and Producer Surplus, Section 5.5	Ap2	P. 400: 1,3,5,17,19,37,41, 43,44	B5, D23, A28, B27, C27, D31, E35

* In Sections 5.2 and 5.3, students are expected to do *basic* substitutions both with and without the calculator.