COLLEGE OF STATEN ISLAND
DEPARTMENT OF MATHEMATICS
COURSE OUTLINE
MTH 102 -- Mathematics for Liberal Arts

Fall 2013

TEXT: <u>Mathematical Excursions</u> 3rd Edition by Aufmann/Lockwood/Nation/Clegg;   Departmental
        Houghton Mifflin Company
http://www.math.csi.cuny.edu/Courses
REQUIRED: Scientific Calculator

LESSON	SECTION	TOPICS	HOMEWORK PROBLEMS
1,2,3	9.1 pgs.514-523	**FIRST DEGREE EQUATIONS**	
		Solving First-Degree Equations	525/1,3,5,9, P.526/11,17,19,25,35
		Applications	526-528/42,43,47,48,51,52,57a,b,59
		Literal Equations	529/69,71,73,75,77,79,88,89
4,5	9.2 pgs.530-538	**RATE, RATIO & PROPORTION**	
		Rates, ratios	540-543/8,9,10,14,17,18,21, 27-31
		Proportions	543-544/35,43,50,53,54,56,58,59
6,7,8	9.3 pgs.546-557	**PERCENTS**	
		Percents	560/7,8,9,13,14,16
		Percent Problems: The Proportion Method, The Basic Percent Equation	560-561/18,20,22,24,26
		Percent Increase	562/30,31,32,35
9*		REVIEW SESSION (Chapter 9)	578-580/1,3,4,9,10,11,15,16, 18,21,23,26
10,11	7.2 pgs.382-395	**PERIMETER & AREA of PLANE FIGURES**	
		Perimeter of Plane Geometric Figures	397-399/17a,18a,19a,22a,23a,25a,29a 31,33,35,36,39
		Areas of Plane Geometric Figures	397-400/17b,18b,19b,22b,23b,25b,27b, 29b,44,45,49,50,51,54-57
12	7.4 pgs.419-423	Volume	428/1-6,13-23 odd only
13,14*		REVIEW FOR TEST 1	http://www.math.csi.cuny.edu/Courses
15		TEST 1	
16,17	12.1 pgs.734-739	**THE COUNTING PRINCIPLE**	
		Counting by Making a List, Table, Tree Diagram The Counting Principle	741-742/1,3,5,7,9,10,15,17,19,21,23,25
18,19	12.2 pgs.744-752	**PERMUTATIONS and COMBINATIONS**	
		Factorial, Permutations	753-754/3,5,6,13,15,45-48,54

		Combinations	753-755/25,27,29,37,39,49,50,51,56,65-70

LESSON	SECTION	TOPICS	HOMEWORK PROBLEMS
20,21,22	12.3 pgs.756-763	**PROBABILITY and ODDS**	
		Introduction to Probability	764-766/1,3,7,9,13,23,24,27,31,35-57 odd
		Applications to Genetics	766/55-58
		Calculating Odds	766-767/59,60,67,69,71,74,77,79,80
23	12.4 pgs.768-773	**ADDITION and COMPLEMENT RULES**	
		Addition rules for Probabilities The Complement of an Event	775-776/3,5,7,9,11,21,23,25,27,29,31 32,33,39,40,43,45
24*		REVIEW SESSION (Chapter 12)	798-800/4,5,11-18,20-22,27-30 33,34,37-39,41-44,47,48,52,53
25,26	13.1 pgs.804-810	**MEASURES of CENTRAL TENDENCY**	
		Mean, Median, Mode	811-812/1,3,5,6,11,13,15
		The Weighted Mean	812-813/17,19,21,23,27,29,31,33
27,28	13.2 pgs.815-821	**MEASURES of DISPERSION**	
		The Range, The Standard Deviation, The Variance	822-823/1-5,7,9,13-16
29,30	13.4 pgs.837-841	**NORMAL DISTRIBUTIONS**	
		Frequency Distributions and Histograms	847/1,2
		Normal Distributions and the Empirical Rule	848/3,5,6,7,8
31-32*		REVIEW SESSION (Chapter 13)	865/1,2,3,6,7
		REVIEW for TEST 2	http://www.math.csi.cuny.edu/Courses
33		**TEST 2**	
34,35	11.1 pgs.660-666	**SIMPLE INTEREST**	
		Simple Interest, Future Value and Maturity Value	668-669/5,7,9,11,21,25,27,31,34 36,37,39,40,43-49
36,37,38, 39	11.2 pgs.671-683	**COMPOUND INTEREST**	
		Compound Interest, Present Value, Inflation, Effective Interest Rate	686-688/1,3,5,7,15,18,27,31,35,40,45, 51,53,55,57,59,63-67
40*		REVIEW SESSION (Chapter 11)	729-730/1-11
41-42*		REVIEW for **FINAL**	

*Indicates Review Sessions