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

Fall 2017

TEXT: Mathematical Excursions 4th Edition by Aufmann/Lockwood/Nation/Clegg;
Houghton Mifflin Company
http://www.math.csi.cuny.edu/Undergraduate/Courses
REQUIRED: Scientific Calculator

LESSON	SECTION	TOPICS	HOMEWORK PROBLEMS
1,2,3	9.1 pp. 496-504	**FIRST DEGREE EQUATIONS**	
		Solving First-Degree Equations	P. 506/1,3,5,9,11,17,19,25
		Applications	Pp.507-508/42,43,47,48,51,52,57a,b,59
		Literal Equations	Pp. 508-509/69,71,73,75,77,79,88,89
4,5	9.2 pp. 509-517	**RATE, RATIO & PROPORTION**	
		Rates, ratios	Pp. 518-520/8,9,10,14,17,18,21, 27-31
		Proportions	P. 521/35,43,46-51
6,7,8	9.3 pp. 522-533	**PERCENTS**	
		Percents	P. 535/7,8,9,13,14,16
		Percent Problems: The Proportion Method, The Basic Percent Equation	Pp. 535-536/18,20,22
		Percent Increase and Decrease	P. 536/24,26,27,28
9*		REVIEW SESSION (Chapter 9)	Pp. 550-552/1,3,4,9,10,11,15,16, 18,21,23,25,29
10,11	7.3 pp. 376-387	**PERIMETER & AREA of PLANE FIGURES**	
		Perimeter of Plane Geometric Figures	Pp. 389-390/7,9,11,17,18,19,22,23,25,29,31,33, 35,36,39
		Areas of Plane Geometric Figures	P. 390/29,31,33,35,36,39
12	7.5 pp.406-412	Volume	P. 414/1-6,13-23 odd only
13,14*		REVIEW FOR TEST 1	http://www.math.csi.cuny.edu/Courses
15		TEST 1	
16,17	12.1 pp. 688-692	**THE COUNTING PRINCIPLE**	
		Counting by Making a List, Table, Tree Diagram The Counting Principle	P. 695/1,3,5,7,9,10,15,17,19,21,23,25, 26
18,19	12.2 pp. 696-703	**PERMUTATIONS and COMBINATIONS**	
		`*n'* Factorial, Permutation	Pp. 705-706/3,5,6,13,15,45-48,54
		Combination	Pp. 705-706/ 21,23,25,27,29,37,39,43,49,50,51,56, 65-70

LESSON	SECTION	TOPICS	HOMEWORK PROBLEMS
20,21,22	12.3 pp. 707-714	**PROBABILITY and ODDS**	
		Introduction to Probability	Pp. 715-717/1,3,7,9,13,23,24,27,31,35-47 odd
		Applications to Genetics	P. 716/53-56
		Calculating Odds	P. 717/59,60,67,69,71,74,77,79,80
23	12.4 pp. 718-729	**ADDITION and COMPLEMENT RULES**	
		Addition rules for Probabilities The Complement of an Event	Pp. 725-726/3,5,7,9,11,21,23,25,27,29,31 32,33,39,40,43,45
24*		REVIEW SESSION (Chapter 12)	Pp. 746-748/4,5,11-18,20-22,27-30 33,34,37-39,41-44,47,48,52,53
25,26	13.1 pp. 752-757	**MEASURES of CENTRAL TENDENCY**	
		Mean, Median, Mode	P. 759/1,3,5,6,11,13,15
		The Weighted Mean	Pp. 759-761/17,19,21,23,27,29,31,33
27,28	13.2 pp. 762-767	**MEASURES of DISPERSION**	
		The Range, The Standard Deviation, The Variance	P. 769/1-5,7,9,13-16
29,30	13.4 pp. 781-785	**NORMAL DISTRIBUTIONS**	
		Frequency Distributions and Histograms	P. 791/1,2
		Normal Distributions and the Empirical Rule	P. 792/3,5,6,7,8
31,32*		REVIEW SESSION (Chapter 13)	P. 808/1,2,3,6,7
		REVIEW for TEST 2	http://www.math.csi.cuny.edu/Courses
33		**TEST 2**	
34,35	11.1 pp. 620-626	**SIMPLE INTEREST**	
		Simple Interest, Future Value and Maturity Value	Pp. 627-628/5,7,9,11,21,25,27,31,34 36,37,39,40,43-47
36,37,38, 39	11.2 pp. 628-640	**COMPOUND INTEREST**	
		Compound Interest, Present Value, Inflation, Effective Interest Rate	Pp. 642-643/1,3,5,7,15,18,27,31,35,40,45, 51,53,55,57,59,63-67
40*		REVIEW SESSION (Chapter 11)	Pp. 683-684/1-12
41-42*		REVIEW for **FINAL**	

*Indicates Review Sessions