

**The College of Staten Island
Department of Mathematics**

**COURSE OUTLINE
Mth 020 – Elementary Algebra**

Fall 2007 DM, JCD,SB

Text: Elementary Algebra, Concepts and Applications, 7th Edition, by Bittinger/Ellenbogen, with *MyMathLab Student Access Kit*; Pearson Custom Publishing / Addison Wesley (Available in the CSI Campus Bookstore)

Text: COMPASS Prep Text (**optional**) COMPASS Mathematics a Study Guide for the COMPASS Mathematics Test, 2nd Edition, by Walter Okomo, McGraw-Hill Publishing

******NO Calculators**

WEEK	LECTURE	SECTION	TOPICS	HOMEWORK PROBLEMS
I	1	1.1	Evaluate Variable Expressions Translating Verbal Expressions to an Algebraic Expression or Equation	Pg 10: # 31-47 odd, 55, 59, 63-71 odd, 79, 80
		1.2	Simplify Variable Expressions	Pg 19: # 47, 53, 57, 59, 61
	2	1.3	Fraction Notation,	Pg 28: # 35-41 odd, 42, 47, 49, 53, 55, 56, 59, 61, 65, 67,69, 75, 77, 80, 81, 83
		1.4	Integers, Absolute Value	Pg 37: # 10, 13, 15, 20, 21, 23, 25, 27, 31, 33, 37-45 odd, 61-73 odd
	3	1.5	Addition of Real Numbers	Pg 44: # 15-39 odd, 45, 47, 51, 55, 57
1.6		Subtraction of Real Numbers	Pg 51: # 19, 21,27, 39, 41, 47, 51-65 odd, 91-99 odd, 105-115 odd,136, 137, 139	
4	1.7	Multiplication and Division of Real Numbers	Pg 61: # 21, 25, 29, 33, 37, 41, 47, 51, 53, 55, 57, 61, 65-81 odd, 87,89, 95, 105, 113, 115	
II	5	1.8	Exponents and Order of Operations COMPASS REVIEW	Pg 70: # 9, 11, 13, 15, 20, 22, 24, 25, 29, 32, 33, 37, 41, 43, 45, 57, 59, 61, 65, 79, 83, 85, 87, 89 Test # 5 – Pg 85-88: 1-13 Test # 6 – Pg 93-98: 1-13
	6	2.1	Solving Equation: Addition Principle Multiplication Principle	Pg 87: # 9,15,19,33, 37, 39, 41, 43, 49, 51, 55, 57, 59, 63, 69, 87, 89, 91

	7	2.2	General Equations	Pg 95: # 7, 17, 21, 25, 27, 31, 33, 43, 45, 49, 51, 57, 59, 63, 66,71
		2.3	Formulas	Pg 101: #9, 13, 17, 21, 33
	8	2.4	Percent Equations and Applications	Pg 110: # 43, 45, 49-57 odd,69,74,88
III	9	2.5	Translating Sentences into Equations and Solving	Pg 122: # 1, 3, 4, 5,7
	10	2.5	Perimeter Problems	Pg 124 # 24, 26, 27, 30
	11	2.6	Solving Inequalities	Pg 134: # 15, 17, 21, 33, 37, 39, 51, 57, 65, 71, 77,91,93
			COMPASS Review	Test # 7 – Pg 108-114: 1-11 Test # 8 – Pg 123: 1-5
	12		REVIEW	Pg 75: #1,2,7,8,11,13,15,17,23,28,32, 35,37,39,40-49,51, 53-63odd,64,69,71 Pg 144 # 9-15 odd, 19-27 odd, 28, 29, 30, 32, 34, 35,36, 37, 39, 40, 43, 45, 47, 48, 55, 56
IV	13		EXAM #1	
	14	2.5	Consecutive Integer Word Problems	Pg 123: # 16, 17, 18, 23
	15	2.5	Word Problems and Applications	Pg 123: # 25, 37, 39, 40
	16	3.1	Reading Graphs Plotting Points	Pg 154: # 1, 5, 13, 17, 19, 21, 23, 27, 28, 29, 31, 36, 37, 41, 43, 45, 49, 51
V	17	3.2	Graphing Linear Equations	Pg 166: # 1, 3, 5,8,9,15, 17, 19, 21, 23
	18	3.2	Graphing Linear Equations	Pg 166: # 27, 28, 29, 31, 33
	19	3.3	Graphing Using Intercepts	Pg 175: # 8, 9, 13, 15, 23, 27, 29, 31, 35, 37,51-57odd
	20		Slope	Slope Handout
VI	21	3.5	Slope	Pg 196: # 19, 21, 23, 25,27, 31, 41, 43, 49, 53
	22	3.6	Equation of a Line - Slope- Intercept Form	Pg 207: # 31, 32, 37,43, 45, 51
	23	3.7	Equation of a Line - Point Slope Form	Pg 215: # 9, 27,29, 31, 33, 35, 39, 41,65, 67, 69

	24		REVIEW COMPASS Review	Pg 146: # 28, 29, 30 Pg 220: # 19-21, 25, 26, 27, 30,35, 36, 41, 46, 47, 48, 49 Test #18 – Pg 316-319: # 1-3, 6-14
VII	25		EXAM # 2	
	26	4.1	Integer Exponents COMPASS Review	Pg 233: # 9, 13, 15, 21, 24, 25, 39, 41, 43, 53, 57, 59, 63, 73, 77 Test #16 – Pg 271: #1-6, 8, 11, 12, 13, 14
	27	4.2 4.3	Polynomials Addition and Subtraction	Pg 241: # 29, 31, 33, 37, 39, 41 Pg 250: # 1, 3, 5, 17, 25, 27, 31, 35, 35,47
	28	4.4	Multiplying Monomials & Rules for Exponents	Pg 258: # 9,11,19-25 odd, 29, 31, 33, 57, 59
VIII	29	4.5	Multiplying Polynomials – FOIL	Pg 267: # 9-17 odd
	30	4.5	Multiplying Polynomials – Special Products COMPASS Review	Pg 268: # 25-27, 39, 41, 43, 51, 52, 85 Test #11 – Pg 183-189: # 1-8, 11, 12, 14, 17-20, 24, 26, 27
	31	4.7	Division of Polynomials	Pg 283: # 1-7, 9, 14, 15
	32	4.8	Negative Exponents & Scientific Notation	Pg 291: # 1, 3, 7, 9, 13, 15, 17, 37, 39, 41, 89, 91-93, 99, 101
IX	33	5.1	Factoring	Pg 307: # 15-19, 21, 23, 25, 29, 30
	34	5.2	Factoring Trinomials with leading coefficient of 1	Pg 314: # 7-9, 11, 13-15, 17-23 odd, 24
	35	5.4	Factoring Perfect Square Trinomials	Pg 332: # 19-22
	36	5.4	Difference of Two Squares COMPASS Review	Pg 332: # 57-61,70 Test #12 – Pg 202: # 1, 2, 4, 5, 6, 7, 8, 9, 11, 13 Test #13 – Pg 212: # 1-11
X	37	5.6	Solving Quadratic Equations by Factoring	Pg 345: # 1-7, 13
	38	5.6	Solving Quadratic Equations by Factoring	Pg 346: # 21, 23, 25, 27, 31, 36, 37

	39		REVIEW	Pg 296: # 9, 10, 12, 15, 17, 24, 26, 27, 29, 30, 32, 33, 35, 36, 41, 43, 47, 48, 51,60, 68, 69, 70, 71, 75 Pg 360: # 11-19 odd, 23, 31, 33, 37, 47, 51
	40		EXAM #3	
XI	41	6.1	Rational Expressions	Pg 370: # 7, 9, 11, 25, 26, 28, 29, 31, 37, 47, 59, 61
	42	6.2	Multiplication and Division of Rational Expressions	Pg 374: # 11,13, 19, 20, 39-49 odd, 57,69,71
	43	6.3	Addition and Subtraction of Rational Expressions with <u>like</u> denominators	Pg 384: # 1-9 odd Pg 385: # 11, 13, 15, 19, 21, 25, 29, 36, 37, 38, 41, 43, 47, 48, 53
	44	6.4	Addition and Subtraction of Rational Expressions with <u>unlike</u> denominators	Pg 393: # 1, 5, 7, 13,15, 17, 19, 25, 27,75, 76, 79
XII	45	6.6	Solving Rational Expressions	Pg 408: # 3, 7, 15, 16, 23, 26,31
	46	6.7	Applications using Rational Equations and Proportions	Pg 417: # 1, 3, 5, 9,13, 14, 15
	47	6.7	Applications using Rational Equations and Proportions	Pg 420: # 35, 38, 45, 47, 51
	48	8.1	Simplify Radicals COMPASS Review	Pg 488: # 1-6,19, 21, 24, 25, 27, 29, 32, 39, 41, 65, 67, 69 Test #14 – Pg 230: # 1-6 Test #7 – Pg 111: # 12-22 Test #10 Pg 163: #1, 2, 3, 7-14
XIII	49	8.2	Multiply and Simplify Radicals	Pg 496: # 11-23 odd, 27-35 odd, 41, 45,67, 68, 69, 73
	50	8.6	Pythagorean Theorem COMPASS Review	Pg 518: # 1, 2, 4, 5, 7,13-23 odd, 28 Test #17 – Pg 295: # 1-7, 10, 12, 13, 14, 16, 18 Handout: Sample Test 1 & 2
	51		REVIEW	Pg424:#11,16,18,19,20,21,24, 27,30,31,35,40,41 Pg530#15-18,31,33,34,39-42
	52		EXAM # 4	
XIV	53		FINAL EXAM REVIEW	
	54		FINAL EXAM REVIEW	
	55		FINAL EXAM REVIEW	
	56		FINAL EXAM REVIEW	

