COLLEGE ALGEBRA SYLLABUS
SEMESTER 1

All assignments must be completed using the following guidelines:

- Two problems per assignment may be omitted.
- No two consecutive problems may be omitted.
- No more than one word problem may be omitted.
- No problems may be omitted from assignments with 6 or fewer problems.

Homework Coupons

- Four homework coupons per semester may be used with no more than two used before October 15 and March 15.
- Homework coupons may NOT be used for Review sheets and on indicated assignments.
- If unused homework coupons remain at the end of the semester, they may be applied to missing assignments from the first half of the semester.
- Five points of extra credit will be given for each unused coupon.

Date	Assignment	Points
	Sec. R.1 pp. 10-12 33-38 Sec. R.2 pp. 19-20 13-35 odd	8
	Sec. R.3 pp. 32-33 18, 21, 29, 31, 34, 49, 50, 51, 53, 56, a-c below, & Scientific Notation Worksht Simplify: (a) $\frac{\left(4f^{-5}g^{3}h\right)^{3}\left(f^{-7}g^{6}h^{-1}\right)^{-5}}{\left(6f^{3}g^{-4}h^{-5}\right)^{2}\left(11f^{-4}g^{13}h^{-8}\right)^{0}}$ (b) $\left(\frac{3}{4}\right)^{-3}$ (c) $\left(\frac{1}{3}\right)^{-2}+\left(\frac{1}{2}\right)^{-2}$	12
	Sec. R.3 pp. 32-33 71, 80, 81, 91, 105, 115, 121 Sec. R.4 p. 44 33 all, 35b, 41a, c, 42b, 43, 46, 49, 55	13
	Sec. R.5 pp. 55-57 5b, 9b, c, 11b, 13b, 15c, 17d, 19b, d, 21a, c, 24, 37, 43, 49, 50, 55	15
	Ch. R. Review	
9/1	Ch. R Test	
	Motion, Mixture and More Handout—*No homework coupons allowed!*	12
	Sec. 1.2 pp. 93-95 Express all solutions in interval notation unless an x≠situation. 23, 27, 31, 35, 37, 39, 41, 43, 44, 46, 49, 51, 52, 61, 63, 69, 73, 77, 85, a-d below a) $3x+5<-4$ OR $7-2x\geq 8$ b) $16-5x<4+3x\leq 9-2x$ c) $6-3x\geq 9-7x$ OR $4x+5<9$ d) $-4x+9<8-2x\leq 3+5x$	14
	Sec. 1.3 pp. 101-103 17, 19, 23, 24, 25, 31, 33, 43, 45, 49, 51, 55, 57, 63, a-d below a) $4\left\|3x-7\right\|>20$ b) $\left\|6x+25\right\|+14\leq 6$ c) $25-3\left\|2-x\right\|\geq 1$ d) $-5\left\|3-2x\right\|-10<0$	15
	Solving Linear Equations & Inequalities Review	
9/16	Solving Linear Equations & Inequalities Test	
	Sec. 2.2 pp. 171-175 11, 15, 19, 25, 26, 43, 45, 57 Sec. 2.3 pp. 184-187 37, 41, 43, 45, 62, 63	9
	Sec. 2.2 pp. 171-175 73, 76, 79, 85 Sec. 2.3 pp. 185-187 89-96, 101, 103, 105, 106 *(Can omit 1 from each page)*	12
	Sec. 2.6 pp. 232-235 13-18 (a-c), 27, 28, 31, 32	9
	Review Lines	
10/3	Lines Quest	
	Sec. 1.4 pp. 111-113 7 all, 9 all, 11b, 25a, 27 b, 29a, 31b, 33a, 35a, 37b, 57a, 59b, 67, 69, a & b at right a) $2i^{46}-3i^{127}+i^{88}$ b) $5i^{57}-i^{22}-4i^{563}$	10
	Sec. 1.5 p. 125 Solve by factoring: 17, 23, 25, 29, 33, 35, 37, 40, Solve by completing the square: 53, 55, 59, 62, 67, 68, 71. 102, 117	13
	Sec. 1.5 pp. 125-127 81, 85, 89, 91, 93, 95, 101, 125, 127, 129, 133, 135	11

	Sec. 4.1 pp. 344-348 17, 21, 23, 25, 27, 29, 30, 33, 35, 37, 49, 50, a, and b below Graph: a) $y=-2(x-7)^2+8$ b) $y=\frac{1}{4}(x+5)^2-3$	12
	Sec. 4.1 pp. 346-348 By hand: 39, 45, 46 Calculator: 41, 44, 51	12
	Review Quadratic Functions	
10/21	Quadratic Functions Test	
	Sec. 2.1 pp. 157-161 25, 27, 36, 37, 43, 47, 55, 61, 67, 71, 73, 79, 91	8
	Sec. 3.1 pp. 256-259 31-42 all, 43-61 odd, 73, 76, 77, 78 Explain Graph Design Project	10
	Sec. 3.1 p. 256-257 54-62 even, 63, 65 Sec. 3.2 pp. 270-273 Graph: 19, 22 (4 in num.), 27, 30 (-3 in num.), 31, 32, 34, 36, 63 (omit c), 65 (omit c), 69, 73, 75	18
	Graph Design Project	
	Sec. 3.4 pp. 293-297 Evaluate the given piecewise function using the values in the parentheses: 10 $\left(-\frac{3}{2},\ 2,\ 3\right)$, 11 $(-3,\ 5)$, 13, 15-19, 29-35 odd, 41, 44 (do not graph)	10
	Sec. 3.3 pp. 280-284 21, 23, 31, 33, 39, 43, 25, 35, 45, 55, 59, 61, 63, 64, 66, 69	11
	Review Graphing ***Graph Design Project Due!!!!!***	
11/17	Graphing Common Functions Test	
	Sec. 2.4 pp. 197-201 5, 8, 11, 13, 19-29 odd, 37, 39, 41, 45, and Domain Handout	13
	Combining Functions Handout	13
	Sec. 3.5 pp. 309-312 43, 47, 53, & problems at right 59, 61-65, 67, 84, 87, 89 Find each composition and its domain. $f(x)=\sqrt{x+2}$ $g(x)=\frac{3}{x-2}$ $h(x)=x^2-4$ a) $(h\circ f)(x)$ b) $(f\circ g)(x)$ c) $(f\circ h)(x)$	10
	Sec. 5.1 pp. 435-437 5-13, 15, 17-25, a, b below. Find the equation of the f^{-1}: 37, 41, 43, 44, 49, 50, 80 Determine whether g is the inverse of f using a composition of functions. a) $f(x)=\sqrt{x^3-7}$ $g(x)=\sqrt[3]{x^2-7}$ b) $f(x)=\frac{3x+4}{8x}$ $g(x)=\frac{4}{8x-3}$	9
	Review Functions	
12/9	Functions Test	
	Semester Review	
	Semester Review	
12/19	Semester 1 Exam	
12/21	A Trip to the Lake Project	