**Course Title:** College Algebra - Expanded Course Number: MTH 127 -- Section 105 -- CRN 4119 -- Credit: 5 Hours College Algebra, by Michael Sullivan, Ninth Edition Textbook: **Sections Covered:** R.1- R.8, 1.1-1.7, 2.1- 2.4, 3.1- 3.6, 4.1- 4.4, 5.1- 5.5, 6.1- 6.6, 8.1-8.4 Basic Concepts of algebra; Equations and Inequalities; Graphs; Study of Course Functions and their Graphs; Linear and Quadratic Functions; Polynomial and **Description:** Rational Functions; Exponential and Logarithmic Functions. Calculator: Any Scientific calculator, graphing calculators may not be allowed for some problems in exams. ACT of 19 or above, SAT 460 or MTH 099. **Prerequisites:** MTWRF: 1:00 – 1:50 PM **Meeting Time: Classroom:** Corby Hall 436 **Instructor:** Dr. Basant Karna Office: Smith Hall 741B **Office Hours:** 11:00-1:00AM -- MTWRF, Others by appointment Phone/Email: Phone: (304) 696-4332, Email: karna@marshall.edu Webpage: http://www.science.marshall.edu/karna/ Course The students completing this course should be able to: **Objectives:** understand mathematical concept of a function. sketch and interpret the graphs of elementary functions. manipulate and solve polynomial, rational, exponential, and logarithmic equations. apply to new situations in mathematics and daily life. The students will be ready for MTH 132. **Course Contents:** Review **Equations and Inequalities** Graphs Functions and Their Graphs Linear and Quadratic functions Polynomial and Rational Functions **Exponential and Logarithmic Functions** System of Linear Equations **Attendance Policy:** Attendance is required and you must come with your text. Attendance will be taken every class day either by sign-in-sheet or by quiz. Having more than 25% absences (excused or unexcused) may result in a course grade of F! Absences which can be excused include illness, emergencies, or participation in another university activity. Documentation from an outside source must be provided. **Grading Policy:** A. Quizzes: Throughout the semester, there will be 12 quizzes given during the last 15 minutes of the class on Fridays. Problems in quizzes will be given from assigned homework problems (textbook will not be allowed). Two lowest quizzes score will be dropped. B. *Exams*: There will be 3 exams given in class during the semester. C. Homework Problems: Homework problems will be assigned and collected. You are responsible for reading the text, working the exercises, coming to office hours for help when you're stuck, and being aware of the

	dates for the major exams.	
	E. <i>Final Exam:</i> There will be a two-hour final exam on May 8, 2015.	
Points		•
Distribution:	Quizzes(10)	100 Pts
Distribution:	Homework Assignments	50 Pts
	3 Major Exams	300 Pts
	Final Exam	125 Pts
	Attendance	25 Pts
	Tota	1 Pts: 600 Pts
Grades	The semester grade will be based on the percentage of the 600 total possi	
	points, using the following scale.	r
	A: 90 -100 %, B: 80 - 89 %, C: 70 - 79 %, D: 60 - 69 %, F: 0 - 59 %	
Make-ups:	<b>[ake-ups:</b> A. Quizzes: For unavoidable missed quizzes with valid documentation,	
1	-	eek of the original quiz date (up to two
	quizzes).  B. <i>Exams</i> : Making up a missed exam is possible only if you receive prior permission from me and only for serious and unavoidable circumstances. Makeups are likely to be more difficult than the original exam and must be taken within a week of the original exam date. You can't make up a make-up exam.	
	C. Final: If you don't take final ex	am, you will receive "F" for the class.
Exam Dates:	Exam 1 – Feb 13, Exam 2 – March 13, Exam 3 – April 17 (Fridays) Quizzes: Q1-J16, Q2-J23, Q3-J30, Q4-F6, Q5-F20, Q6-F27, Q7-M6, Q8-M27, Q9-A3, Q10-A10, Q11-A24, Q12-M1 (Fridays) Final Exam: May 8 @ 12:45 PM(Friday)	
<b>Important Dates:</b>	<ul> <li>January 19, Monday – MLK, Jr. Holiday – No Class</li> <li>January 20, Tuesday – "W" Withdrawal period begins</li> <li>March 27, Friday – Last day to drop</li> </ul>	
	• March 16, Monday – March 21, Saturday – Spring Break- No Class	
	• May 1, Friday – Last class day	
Cell Phones:	All electronic devices should be sh	ut off during class. No Text Messaging!
University Policies		
Oniversity I oncies	By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy by going to	
	_	irs and clicking on "Marshall University
	Policies." Or, you can access the p	
	http://www.marshall.edu/academic	
		bsence Policy for Undergraduates/ Computing
	<u> </u>	nt Weather/ Dead Week/ Students with
		s/ Academic Probation and Suspension/
	Academic Rights and Responsibili	ties of Students/ Affirmative Action/ Sexual
	Harassment	
Free Tutoring:	Free tutoring in Music Smith Hall 115. See the tutoring schedule in classroom board or contact the math department.	
<b>Disable Students:</b>	The Disabled Student Services web site is now available. You may visit it at	
	<u>http://www.marshall.edu/disabled</u> . Students seeking special accommodations	
	need to follow the university policy detailed at this web site. It is their	
	responsibility to initiate the process for receiving accommodations based upon	
		estions or comments, please contact Sandra
	Clements, the Director of Disabled	
<b>Coming Late:</b>		stay in the class for entire class. If you are late
	by more than 5 minutes, you will be	be considered to be absent.

## **Homework Problems**

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------ HW 1 ------
Section R.1: 9, 12, 15, 18, 21, 27, 31, 58, 71, 79, 91
Section R.2: 11, 18, 21, 23, 31, 33, 41, 45, 48, 55, 57, 63, 83, 89, 91, 93, 94, 103, 119, 123
Section R.3: 11, 13, 17, 25, 27, 31, 34
Section R.4: 27,29,31,35,37,39,41,43,47,49,51,55,57,59,63,65,69,71,73,75,79,81,89,93,97,101
Section R.5: 5,10,13,15,17,21,23,27,31,33, 39-50(odds), 51,53,57,61,65,69,72,79,83,97
Section R.6: 5, 7, 8, 9, 11, 15, 17, 19, 21, 24
Section R.7: 6, 7, 10, 13, 16, 17, 25, 29, 31, 35, 39, 41, 44, 45, 49, 51, 61, 63, 67, 69, 73, 79
------ HW 2 -----
Section R.8: 15, 23, 27, 31, 37, 39, 43, 47, 55, 57, 58, 59, 65, 67, 69
Section 1.1: 11, 13, 17, 26, 27, 29, 31, 44, 47, 51, 55, 59, 84, 85
Section 1.2: 9, 11, 13, 15, 16, 21, 25, 29, 31, 35, 39, 41, 43, 45, 56, 80, 87, 93, 95
Section 1.3: 9, 11, 14, 15, 18, 22, 23, 25, 27, 28, 31, 47, 48, 51, 53, 59, 61, 66
------ HW 3 -----
Section 1.4: 7, 9, 11, 17, 21, 27, 29, 41, 47, 50, 53, 73, 79, 81
Section 1.5: 11-16, 17, 21, 23-30, 31-38, 39, 41, 47, 51, 53, 55, 57, 63, 69, 71, 73, 77, 89, 93
Section 1.6: 7, 9, 11, 14, 15, 19, 28, 31, 35, 39, 41, 44, 47, 49, 53
Section 2.1: 13, 17, 19, 25, 27, 29, 33, 35, 39
Section 2.2: 1-11, 11, 15, 17, 19, 21, 25, 29, 31, 39-47 (odds), 51, 53, 59, 65
------ HW 4 ------
Section 2.3: 1-10, 12, 13, 15, 21, 23, 27, 29, 31, 33, 37, 39, 41, 43, 45, 47, 51, 57, 61, 63, 65, 69, 71, 73,
           77, 79, 91, 92, 95, 111
Section 2.4: 7, 9, 11, 13, 17, 21, 23, 25, 27, 29, 31, 35, 39
Section 2.5: 3, 5, 6, 7, 9, 10, 11, 13, 17, 18
Section 3.1: 5, 7, 9, 10, 15, 17, 19-26, 27-38, 39, 41, 45, 47, 49, 51, 55, 57, 59, 63, 65, 69, 75
Section 3.2: 9, 10, 11-22, 23, 24, 25, 27, 29
Section 3.3: 11-20, 21, 22, 24, 25, 27, 29, 31, 33, 35, 37, 45, 47, 49, 51
------ HW 5 -----
Section 4.5: 3, 4, 5, 7, 9, 11, 13, 15, 17, 25
Section 5.1: 15.17, 19.21,25,27,29.35,37,41,42,43,45,47,49,51,55, 57, 61-64, 65, 66, 67, 69-86 (ODDS)
Section 5.2: 13, 15, 17, 19, 21, 25, 26, 29, 30, 31, 33, 36, 39, 43, 45, 46
Section 5.3: 7, 8, 9, 11, 12, 23, 45, 47
Section 5.4: 5, 6, 7, 9, 11, 17, 19, 23, 25, 34, 35
------ HW 6 -----
Section 5.5: 11-68 (odds), 91, 95, 97, 99
Section 6.1: 7, 9, 11, 13, 17, 21, 27, 29, 33, 37, 41, 45, 49
Section 6.2: 11-71 (odds)
Section 6.3: 15, 19, 21, 27, 33-40, 41, 45, 53-60, 61, 65, 67, 69, 73, 77
Section 6.4: 9-45 (odds), 49, 53, 59, 63-70, 71, 77, 83, 87-110 (odds)
Section 6.5: 13-69 (odds)
Section 6.6: 5-73 (odds)
Section 8.1: 7, 9, 13, 25, 27, 31, 41, 51
Section 8.2: 5, 7, 11, 13, 17, 19, 21, 25, 27, 29, 37, 41, 44, 47, 48
Section 8.3: 7, 11, 15, 17, 19, 21, 33,
Section 8.4: 9, 11, 13, 15, 17, 19, 25, 27, 31, 33, 41, 45
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Due dates are Mondays after the Sections are covered.