

Course Syllabus MTH 130 Section 101 Fall 2015

Course Title:	College Algebra
Course Number:	MTH 130 -- Section 101 -- CRN 3040-- Credit: 3 Hours
Textbook:	College Algebra by Ron Larson, Ninth Edition
Sections Covered:	P.1- P.6, 1.1-1.8, 2.1- 2.7, 3.1- 3.4, 4.1, 4.2, 5.1- 5.4, 6.1, 6.2
Course Description:	Basic Concepts of algebra; Equations and Inequalities; Graphs; Study of Functions and their Graphs; Linear and Quadratic Functions; Polynomial and Rational Functions; Exponential and Logarithmic Functions.
Calculator:	Any Scientific calculator, graphing calculators may not be allowed for some problems in exams.
Prerequisites:	ACT of 21 or above, SAT 500
Meeting Time:	MWF: 8:00 – 8:50 AM
Classroom:	Smith Hall 516
Instructor:	Dr. Basant Karna
Office:	Smith Hall 715
Office Hours:	10:00-12:00 Noon -- MWF, Others by appointment
Phone/Email:	Phone: (304) 696-4332, Email: karna@marshall.edu
Webpage:	http://www.science.marshall.edu/karna/
Course Objectives:	<p>The students completing this course should be able to:</p> <ul style="list-style-type: none"> - 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. <p>The students will be ready for MTH 132.</p>
Course Contents:	<ul style="list-style-type: none"> - Review - Equations and Inequalities - Functions and Their Graphs - 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.
Grading Policy:	<p>A. <i>Quizzes:</i> 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 scores will be dropped.</p> <p>B. <i>Exams:</i> There will be 2 exams given in class during the semester.</p> <p>C. <i>Homework Problems:</i> 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.</p> <p>E. <i>Final Exam:</i> There will be a two-hour final exam on December 7.</p>

Points Distribution:	<p>Quizzes(10) 100 Pts</p> <p>Homework Assignments 50 Pts</p> <p>2 Major Exams 200 Pts</p> <p>Final Exam 125 Pts</p> <p>Attendance 25 Pts</p> <p>-----</p> <p>Total Pts: 500 Pts</p>
Grades	<p>The semester grade will be based on the percentage of the 500 total possible points, using the following scale.</p> <p>A: 90 -100 % , B: 80 - 89 % , C: 70 - 79 % , D: 60 - 69 % , F: 0 - 59 %</p>
Make-ups:	<p>A. Quizzes: For unavoidable missed quizzes with valid documentation, I will give you make up quiz within a week of the original quiz date (up to two quizzes).</p> <p>B. Exams: Making up a missed exam is possible only if you receive prior permission from me and only for serious and unavoidable circumstances. Make-ups 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.</p> <p>C. Final: If you don't take final exam, you will receive "F" for the class.</p>
Exam Dates:	<p>Exam 1 –October 2, Exam 2 – November 13 (Fridays)</p> <p>Quizzes: Q1-A28, Q2-S4, Q3-S11, Q4-S18, Q5-S25, Q6-O9, Q7-O16, Q8-O23, Q9-O30, Q10-N6, Q11-N20, Q12-D4 (Fridays)</p> <p>Final Exam: December 7 @ 8:00 AM (Monday)</p>
Important Dates:	<ul style="list-style-type: none"> ▪ August 31, Monday – “W” Withdrawal period begins ▪ September 7, Monday – Labor Day – No Class ▪ October 30, Friday – Last day to drop ▪ November 23, Monday – November 28, Saturday – Thanksgiving Break ▪ December 4, Friday – Last class day
Cell Phones:	All electronic devices should be shut off during class. <i>No Text Messaging!</i>
University Policies	<p>By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy by going to www.marshall.edu/academic-affairs and clicking on “Marshall University Policies.” Or, you can access the policies directly by going to http://www.marshall.edu/academic-affairs/?page_id=802</p> <p>Academic Dishonesty/ Excused Absence Policy for Undergraduates/ Computing Services Acceptable Use/ Inclement Weather/ Dead Week/ Students with Disabilities/ Academic Forgiveness/ Academic Probation and Suspension/ Academic Rights and Responsibilities of Students/ Affirmative Action/ Sexual Harassment</p>
Free Tutoring:	Free tutoring in Smith Music Hall 115 (10:00 – 4:00 PM Monday to Thursday and 10:00 to Noon on Friday) and in Smith Hall 620 (4:00 PM to 6:00 PM Monday to Thursday). See the tutoring schedule in classroom board or contact the math department.
Disable Students:	The Disabled Student Services web site is now available. You may visit it at http://www.marshall.edu/disabled . 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 their disability. If you have any questions or comments, please contact Sandra Clements, the Director of Disabled Student Services.
Coming Late:	Students should come on time and stay in the class for entire class. If you are late by more than 5 minutes, you will be considered to be absent.

Learner Outcomes: The table below shows the following relationships: How each student learning outcomes will be practiced and assessed in the course. Upon completion of this course, students will have an understanding of the concepts of basic functions, equations, and their applications to solve real world applications. In particular,

Course Student Learning Outcomes	How students will practice each outcome in this Course	How student achievement of each outcome will be assessed in this Course
Students will employ quantitative and analytical methods to solve problems drawn from basic algebra and geometry.	Students will attend class, work on worksheets and homework, participate in class discussions, and ask questions.	In class worksheets (daily), board work, weekly quizzes, two exams, and the final exam.
Students will solve real-world problems using techniques that employ systems of linear equation or method of variation.	Students will attend class, work on worksheets and homework, participate in class discussions, and ask questions.	In class worksheets (daily), board work, weekly quizzes, two exams, and the final exam.
Students will use symmetry and transformations to create and analyze new functions and their graphs.	Students will attend class, work on worksheets and homework, participate in class discussions, and ask questions.	In class worksheets (daily), board work, weekly quizzes, two exams, and the final exam.
Students will analyze and compare basic algebraic functions as well as exponential and logarithmic functions.	Students will attend class, work on worksheets and homework, participate in class discussions, and ask questions.	In class worksheets (daily), board work, weekly quizzes, two exams, and the final exam.
Students will construct, evaluate, and graph functions to apply in real-world problems.	Students will attend class, work on worksheets and homework, participate in class discussions, and ask questions.	In class worksheets (daily), board work, weekly quizzes, two exams, and the final exam.
Students will demonstrate the ability to work with equations and inequalities symbolically, visually, and numerically.	Students will attend class, work on worksheets and homework, participate in class discussions, and ask questions.	In class worksheets (daily), board work, weekly quizzes, two exams, and the final exam.
Students will apply techniques of systems of linear equations and matrices to solve real world applications.	Students will attend class, work on worksheets and homework, participate in class discussions, and ask questions.	In class worksheets (daily), board work, weekly quizzes, two exams, and the final exam.

Homework Problems

----- HW 1 -----

Section P.1: **9, 16, 17, 21, 23, 25, 27, 35, 49, 51, 61, 66**

Section P.2: **11, 14, 19, 21, 23, 25, 29, 43, 45, 49, 51, 52, 53, 61, 71, 75**

Section P.3: **11, 17, 18, 22, 25, 33, 39, 41, 43, 49, 55, 67, 73, 76, 87, 89**

Section P.4: **5, 7, 9, 13, 15, 21, 23, 37, 39, 41, 42, 43, 47, 49, 53, 55, 57, 73, 77**

Section P.5: **7, 11, 13, 19, 25, 31, 35, 37, 41, 44, 46, 63**

Section P.6: **5, 7, 11, 14, 17, 23, 27, 29**

----- HW 2 -----

Section 1.1: **7, 9, 13, 15, 17, 20, 21, 24, 25, 27, 28, 33, 39, 45, 61, 63, 68, 71**

Section 1.2: **7, 9, 11, 13, 15, 19, 23, 27, 29, 33, 38, 41, 49**

Section 1.3: **13, 15, 17, 21, 22, 23, 31, 33, 35, 37, 43, 54, 62**

Section 1.4: **7, 9, 13, 15, 17, 21, 25, 31, 37, 39, 41, 65, 67, 73, 77, 87, 115**

Section 1.5: **7, 9, 11, 19, 23, 28, 33, 41, 43, 53, 56, 65, 71, 73**

----- HW 3 -----

Section 1.6: **5, 7, 13, 15, 17, 21, 25, 27, 31, 33, 39, 45, 53, 59**

Section 1.7: **5, 7, 13, 15, 19, 21, 27, 31, 37, 43, 49, 53**

Section 1.8: **5, 7, 13, 17, 25, 39**

Section 2.1: **9, 11, 13, 15, 23, 27, 29, 37, 39, 45, 49, 55, 58, 65, 67, 73, 74**

Section 2.2: **5, 7, 9, 11, 13, 17, 21, 27, 31, 35, 37, 41, 43, 45, 49, 55, 57**

----- HW 4 -----

Section 2.3: **7, 9, 11, 15, 21, 32, 33, 35, 37, 55, 71, 72, 77, 78**

Section 2.4: **11, 27, 35, 39**

Section 2.5: **4, 5, 10, 11, 21, 27, 37, 43, 47, 48, 51, 53, 55**

Section 2.6: **5, 7, 11, 13, 15, 21, 23, 31, 33, 35, 37, 41, 43, 45, 47, 51**

Section 2.7: **7, 9, 11, 13, 19, 21, 27, 37-40, 45, 49, 53, 54, 55**

----- HW 5 -----

Section 3.1: **7-12, 14, 17, 19, 21, 23, 29, 43, 44, 47, 49, 50, 79**

Section 3.2: **9-14, 16, 17, 19, 21, 26, 35, 41, 47, 49, 57, 68, 71, 81**

Section 3.3: **8, 11, 13, 15, 27, 29, 31, 32, 38, 47, 57, 59, 63, 67, 69, 71**

Section 3.4: **11, 13, 15, 17, 19, 21, 24, 28, 30, 33, 35, 37, 39, 45, 49, 51, 52, 55, 67, 71, 77, 79**

Section 4.1: **5, 7, 11, 13, 15, 17, 19, 23, 24, 29-36**

Section 4.2: **3, 6, 15, 19, 29, 31, 39**

----- HW 6 -----

Section 5.1: **13-16, 17, 19, 21, 27, 41, 51, 63**

Section 5.2: **7, 9, 11, 13, 15, 17, 19, 21, 25, 27, 29, 31, 43, 57, 65, 73**

Section 5.3: **7, 11, 15, 18, 21-36, 41, 45, 55, 59, 63, 69, 73, 76, 79**

Section 5.4: **3, 5, 7, 8, 9, 17, 19, 21, 25, 35, 39, 51, 54, 55, 57, 60**

Section 6.1: **5, 7, 9, 15, 17, 21, 33, 39**

Section 6.2: **5, 8, 9, 13, 15, 16, 17, 35, 43**

Turn in at least boldface problems.

Due dates are Mondays after the Sections are covered.