

MATH 130 – FALL 2009

COLLEGE ALGEBRA

Instructor: Alina Birca
Email/Phone: **abirca@mtsac.edu** ; 909-594-5611 ext 5364
Website: **www.timetodare.com** or <http://elearn.mtsac.edu/abirca/>
Office: Building 61 – Room 1658
Office hours: **M: 1:35 – 2:30 pm; W: 11:30 am – 12:00 pm & 1:35 – 2:30 pm;**
F: 11:00 am– 12:00 pm & 1:35 – 2:15 pm
Text: *College Algebra* (10th edition) by Lial/Hornsby, Schneider
Student Access Kit Recommended. It is available bundled with your textbook or as a standalone item.
Section MW # 22038 2:30 – 4:35 pm (Bldg 61 – Room 2319)

Course Objectives

This is a function oriented course including the concept of function and function notation. The course includes an in depth investigation of polynomial, rational, root, exponential and logarithmic functions, including their equations, graphs, and behavior. Tools from arithmetic, geometry and algebra are used to develop definitions, standard notations and theorems involving these functions and their application in the physical world. Other topics include sequences, series, the binomial theorem, and mathematical induction.

Some of the course objectives are:

- the ability to represent a function graphically, numerically, and analytically.
- the ability to recognize, graph, and solve equations involving polynomial, rational, exponential, root, and logarithmic functions.
- the ability to recognize and apply the appropriate function to solve problems involving tables, graphs, equations or words.
- understand and use the binomial theorem and the principal of mathematical induction.
- the ability to apply studied principles and skills to new situations in addition to situations that mirror those on the homework and those shown in class.

Methods of Instruction

This course will combine lecture, teamwork, and class discussion. Students will be required to do homework, group problems, quizzes and examinations.

Attendance and Participation

Understanding math requires more than just reading a textbook. Listening and participating in the class activities are as important as solving problems. College policy requires that you attend every class meeting. Moreover, I do notice when you do not show up. If your grade is on a borderline, those with regular attendance are more likely to be on the higher side of the line. In addition, you miss the material from that day and that day's quiz. Do not be late to class. The homework is due at the beginning of the class. You may also miss the quiz if you are late. NOTE: You the student are responsible for dropping the course should you decide not to continue in it. If you stop attending and doing the work and you fail to drop, you will receive a failing grade in this course. **You may be dropped from this class if you miss class during the first 2 weeks of instruction.** Your seat will be given to a student who has been attending each day.

Prerequisites

There is a prerequisite for this course (Math 71 –Intermediate algebra), and I expect that you demonstrate college arithmetic skills as well as elementary and intermediate algebraic skills, including solving first and second degree equations and inequalities, factoring polynomials, working with fractions and rational expressions, graphing lines and parabolas.

Study time & Extra help

You are expected to study two hours outside class for every hour in class – that is a minimum of 6 hours a week. If you have trouble completing assignments or understanding the mathematics, get help as soon as you need it. My office hours and email are listed above. Free tutorial services are available at T-MARC in building 61, first floor (Monday - Thursday 8:30 am - 8:00 pm, Friday 8:30 am - 2:30 pm). On Saturdays, you may use the Learning Assistance Center, Building 6, room 101.

Late Work

Be prepared with all assignments on the day they are due. As a rule, I do not accept late written work nor are there any make up tests or quizzes.

Academic Honesty

Plagiarism or cheating will not be tolerated. There will be a zero on the assignment and risk failing the course.

Calculators

A graphing calculator is NOT REQUIRED for homework problems! All of the homework problems I will assign this semester will be done using paper, pencil, ruler and a scientific calculator. No graphing calculator is allowed during the tests. No cell phones are allowed during the tests.

If you have a phone or pager, please turn it to vibrate and sit close to the door in case you need to use it in an emergency. Thank you.

Organization, Grading and Requirements

You will need a 3-hole binder with 3 separators, labeled as follows:

LECTURES

HOMEWORK

TESTS

- **LECTURES** – Pay attention in class to what I say and do, and make careful notes. In particular, note the problems I work on the board, and copy the complete solutions as well as the theory presented in each section. Work as neatly as you can. Write your symbols clearly, and make sure the problems are clearly separated from each other. Do not hesitate to ask questions in class.
- **HOMEWORK** – Before you start on homework assignments, rework the problems I worked in class as well as all examples from the textbook. This will reinforce what you have learned. Make sure you check your previous work against the solution sections posted on my website.
- Keep all homework assignments and tests that are returned to you in your binder. Use them when you study for future tests and for the final exam.

Assignments in the course are divided into four areas and are worth a total of 1000 points. Those earning 900 points or more will be awarded an A, 800 to 899 points a B, 700 to 799 points a C, 600 to 699 points a D and less than 599 points an F.

Homework 126 points

Homework and reading will be assigned each week. See due dates on the Tentative Class Schedule. I might collect and grade the homework or I might give you a 5 or 10-minute homework quiz. You may use your homework during the quiz. Staple each section separately, as I might collect and grade only some of the assigned sections. Homework is due at the beginning of the class. Read carefully all the directions from the homework handout. Late homework will not be accepted for any reason. The homework-quiz might be given at any time: at the beginning of the class, during the class, or at the end of the class. There is no make-up homework quiz. You are encouraged to discuss assignments with your classmates; however, you are required to write up your work independently. Copied homework will not be tolerated and identical, or nearly identical, assignments will share a single homework score. I will make every effort to address homework questions in class as time permits. Please feel free to visit me during office hours or contact me by email if you need additional help.

Quizzes 270 points

Three quizzes will be given (see Tentative Class Schedule). They may be given at the beginning or at the end of the class. These quizzes will be given from exercises and examples done in class as well as homework problems assigned from the topics covered up to that point. For an exercise to be complete there needs to be a detailed solution to the problem. Do not just write down an answer. **No proof, no credit given!** Each quiz is worth 90 points.

Tests 320 points

Two tests will be given over the major areas addressed in the course. Each test is worth 160 points. For an exercise to be complete there needs to be a detailed solution to the problem. Do not just write down an answer. **No proof, no credit given!**

Comprehensive final 284 points

The final is a 2 ½ hour exam. The final is a cumulative exam. You may use the final exam percent score to replace your lowest test score (a test with a score of zero cannot be replaced by the final score). You must take the final to pass this class.

Tentative Class Schedule

Monday	August 24	1.2, 1.4	
Wednesday	August 26	1.5, 1.6, 1.7	
Monday	August 31	2.1, 2.2, 2.3	
Wednesday	September 2	2.4, 2.5	Homework #1
Monday	September 7	Holiday (Labor Day)	
Wednesday	September 9	2.6	Quiz 1
Monday	September 14	2.7	
Wednesday	September 16	2.8	Homework #2
Monday	September 21	3.1	
Wednesday	September 23	Review	
Monday	September 28	Test #1	
Wednesday	September 30	3.2, 3.3	Homework #3
Monday	October 5	3.4	
Wednesday	October 7	3.5	
Monday	October 12	3.6	
Wednesday	October 14	4.1	Quiz 2
Monday	October 19	4.2	Homework #4
Wednesday	October 21	4.3	
Monday	October 26	4.4, 4.5	
Wednesday	October 28	4.6	
Monday	November 2	Review	Homework #5
Wednesday	November 4	Test #2	
Monday	November 9	5.1, 5.2	
Wednesday	November 11	Holiday (Veteran's Day)	
Monday	November 16	5.2, 5.7	
Wednesday	November 18	5.6	
Monday	November 23	7.1, 7.2, 7.3	Homework #6
Wednesday	November 25	7.4	
Monday	November 30	7.5	Quiz 3
Wednesday	December 2	Review	Homework #7
		Final Exam Monday, December 7, 1:30 – 4:00 pm	

Grade Sheet

Homework 1		
Homework 2	+	
Homework 3	+	
Homework 4	+	
Homework 5	+	
Homework 6	+	
Homework 7	+	
HOMEWORK	=	/ 126
Quiz 1		/90
Quiz 2	+	/90
Quiz 3	+	/90
QUIZZES	=	/270
Test 1		/160
Test 2	+	/160
TESTS	=	/320
FINAL EXAM	=	/284
TOTAL	=	/1000