

Department of Mathematics and Statistics
MAT 140 — College Algebra — Fall 2019

Course Description: Course develops and extends the student's basic algebra concepts and problem-solving skills in the context of functions, models, and applications. Topics include exponents and radicals, graphing, setting up and solving equations in linear, quadratic, and other forms, systems of equations, and operations on functions. Properties and applications of linear, quadratic, polynomial, rational, exponential, and logarithmic functions are studied. (4 credit hours).

Prerequisites: ACT math standard score of at least 21 or MAT 097. A student may not receive credit for MAT 140 and 130 or 150. (MAT 140 in combination with MAT 145 will substitute for MAT 150.)

Course Objectives: Primary skills to be acquired involve algebraic manipulation, solving equations, understanding functions and manipulating their graphs, understanding linear, quadratic, polynomial, exponential, and logarithmic functions, and solving some simple real-world problems.

Instructional Activities: Lectures, problem solving, assignments.

Field, Clinical, Laboratory Experiences, Resources: None.

Instructor: Dubravko Ivanišić [DOO-brahv-ko EE-vahn-shich] Ivanišić is the last name.

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Office: Faculty hall 6A1 (in the Department of Mathematics and Statistics annex)

Course webpage: (A link to this has also been placed on Canvas.)

<http://campus.murraystate.edu/academic/faculty/divansic/19fall/140home.html>

Office Hours: Ask me or check the webpage.

Textbook & Content Outline: Marvin Bittinger et al, Algebra & Trigonometry, Graphs and Models, 6th edition (old editions will not work!), covering chapters (or their portions) J, 1–5, 9.

Graphing calculator: A graphing calculator is required to take this course. The TI-84 is recommended, and is the one that I will use in class. Any other graphing calculator is OK, but be aware that you are responsible to learn how to operate it, as I can offer only limited help here.

Homework and worksheets: The list of homework problems is on the webpage and each section will be assigned after we cover it. I recommend that you first go over the assigned problems in the textbook using pencil and paper, and then use the online homework system MyMathLab to test your skill on the homework.

Afterwards, we will discuss the homework and work on similar problems using in-class worksheets, which are graded on effort. To further promote a continuous effort in the course and give you an exercise in writing things down, you will be given worksheets to take home, which will be graded on correctness. Both in-class and take-home worksheets will contain some representative problems, but to succeed on tests you will need to work on all of the homework problems. Missed in-class worksheets and late take-home worksheets will lose points.

Don't fall behind: MAT 140 develops some basic math skills. While in this course you will see and do many things you may have seen before, don't think that you can do them independently until you have made sure by working out problems on your own.

Mathematics is best learned by doing and to acquire proficiency it is essential that you do many homework problems. For quality results, expect to spend at least one to two hours of study time for every hour of class time. If some things aren't clear to you, come to me for help as soon as possible, and not the day before the exam...

Attendance: Students are expected to adhere to the MSU Attendance Policy outlined in the current MSU Bulletins. Attendance is strongly encouraged every day, and roll will be taken. If you missed eight or fewer classes during the semester, you get 3% bonus points. Note that you are not penalized for missing a class (the points are in excess to your total grade), so an absence is counted as such regardless of the reason ("excused" or not).

Seating: If there are seats available in the front rows of the classroom, no one will be allowed to sit in the back rows.

