



## *MAT 150 College Fall 2009*

**Sections :** 56667

**Where:** MW CM466, 1:30-3:35pm

**Instructor:** Dr. Phil Clark

**Office:** CM428

**Phone:** (480) 425-6753

**Office Hours:** MW 3:30-5, TTh 4:00-5:00 and by appt

**E-Mail:** [phil.clark@sccmail.maricopa.edu](mailto:phil.clark@sccmail.maricopa.edu)

**Web Page:** <http://www.drphilclark.com>

**Textbook:** *Functions Modeling Change: A Preparation for Calculus, 3<sup>rd</sup> Edition*, by Connally, Hughes-Hallet, Gleason, et al.

**Competencies:** Analyze and interpret the behavior of functions, including end behavior, increasing and decreasing, extrema, asymptotic behavior, and symmetry. Solve polynomial, rational, exponential, and logarithmic equations analytically and graphically. Find real and complex zeros of polynomial functions analytically and graphically. Graph polynomial, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions. Determine domain and range of polynomial, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions. Use transformations to graph functions. Perform operations, including compositions, on functions and state the domain of the resulting function. Determine whether a relation is a function when represented numerically, analytically, or graphically. Determine whether a function is one-to-one when represented numerically, analytically, or graphically. Determine the inverse of a relation when represented numerically, analytically, or graphically. Classify functions by name when represented numerically, analytically, or graphically. Determine regression models from data using appropriate technology and interpret results. Read and interpret quantitative information when presented numerically, analytically, or graphically. Justify and interpret solutions to application problems. Compare alternative solution strategies. Calculate and interpret average rate of change. Model and solve real world problems. Solve systems of three linear equations in three variables. Solve systems of linear inequalities. Communicate process and results in written and verbal formats.

**Prerequisite:** A grade of 'C' or better in MAT 12X Intermediate Algebra or the equivalent.

**Homework:** Homework problems will be assigned for each section we cover. You are expected to complete each problem by the given due date. There will be homework quizzes given in class which will be taken directly from the homework. You will be allowed to use your homework to complete the quiz so it is to your benefit to have the problems completed on time. You must be in class in order to take a homework quiz. There will be NO makeup quizzes allowed. Your lowest two homework quiz scores will be dropped at the end of the semester.

**Algebraic Manipulation Practice:** There will be a total of 8 algebraic manipulation practice assignments during the semester. These are to be completed and turned in on the dates given on the website by 7pm to the math department office. They must be done neatly with problems numbered along the left hand margin and handed in on a separate sheet of paper (stapled if multiple sheets are used). There will be 2-3 problems graded on each one plus they will be checked for completeness. These will also add to your homework grade. Failure to follow any directions will result in a loss of points.

**Attendance:** Attendance will not be required but success in class has been shown to have a direct link with showing up. If attendance slips I will notice so please come to class. You may be dropped for excessive absences. If you do not attend in the first week of class you may be dropped from the course.

**Graphing Calculator:** A graphing calculator is required for this course. The suggested calculators include the TI-83 or TI-83 plus and the Casio CFX-9850GB plus. You are responsible for knowing how your calculator works! There are also calculator handouts etc on my website.

<b>Point Distribution</b>	
Homework	25%
Exams	50%
Final Exam	25%

**Makeup Tests and Quizzes:** Will be given at the discretion of the instructor and only in the case of verified medical or other emergency. The instructor must be notified before the exam is given. Email or call the instructor's office and leave a message.

**Grading Scale:**

- A (90% and above)
- B (80%–89.99%)
- C (70%–79.99%)
- D (60%–69.99%)
- E (below 60%)

**Unrestricted Withdrawal Deadline (no signature):** Fri., Oct. 2<sup>nd</sup>

**Restricted Withdrawal Deadline (signature required):** Mon., Nov. 30<sup>th</sup>

**Honor Policy:** The highest standards of academic integrity are expected of all students. The failure of any student to meet these standards may result in suspension or expulsion from the College or other sanctions. Violations of academic integrity include, but are not limited to, cheating, fabrication, tampering, plagiarism or facilitating such activities.

**Math/Science Center:** The Math/Science Center is available for all levels of mathematics. Students can working individually or in groups and receive help when needed.

**Location:** CM 441A (northeast corner of the CM building)

**Hours:** Monday - Thursday 8:00 AM - 7:30 PM; Friday 8:00 AM - 2:00 PM; Saturday 10:00 AM - 2:00 PM

**Positive Learning Environment:** Commitment between students and teacher. Details on the website.

**Disability Resources:** Students with disabilities who believe that they may need accommodations in this class are encouraged to contact Disability Resources & Services office, Building SC-144, 480-423-6517.

**Disclaimer:** The instructor reserves the right to modify this syllabus to better meet the needs of the class. Students are required to check the website regularly for updates.