Instructor: Mrs. Stacey Bowser  
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Office Hours  
Tuesday – Friday 7:25 - 8:13 (Achievement Hour) and by appointment.  
Office hours may change periodically due to other scheduled meetings.

Course Description / Content  
Prerequisites: Algebra 2 (high school credit) and a satisfactory score on the college placement exam  
The course will emphasize trigonometry and mathematical modeling of real world settings, regression analysis, rates of change and the use of current technology in a team setting. Major topics will include linear and quadratic equations, relations and functions, exponential, power, rational logarithmic and logistic functions, transformations, systems of equations and inequalities, trigonometry, sequences, series and limits, conic sections, matrices, vectors, polar coordinates, probability, and an introduction to calculus and limits.

Semester 1 Topics (MAT 187 Required)  
- Mathematical modeling, Functions, and Change  
- Linear Functions and Matrices  
- Transformations of Functions  
- Quadratic Functions  
- Polynomial, Power, and Rational Functions  
- Exponential and Logarithmic Functions  
- Modeling with Other Types of Functions  
- Trigonometric Functions  
- Triangle Trigonometry and Applications  
- Trigonometric Identities

Semester 2 Topics (Tentative)  
- Polar Coordinates and Vectors  
- Conic Sections  
- Sequences and Series  
- Probability  
- Limits and an Introduction to Calculus

Calculator  
A Texas Instruments TI-84 series graphing calculator is required. Students will receive instruction for solving problems both with and without a graphing calculator; however use of a graphing calculator will definitely enable students to better apply most lessons. The TI-84 series from Texas Instruments are the graphing calculators that our text refers to and gives keystroke instructions for. Please do not buy another model or brand of calculator without contacting me first. Using mobile phones in place of graphing calculators is not permitted. QCHS does have a rental program through the bookstore. Please see me for information.

Attendance  
Regular attendance is expected. If you know you will be absent, the work is due prior to the absence. Absences are not a valid reason for being unprepared for class, not turning in assignments on time or for missing a test or quiz. Students will receive 50% of their score on tests and quizzes if they have an unexcused absence the day of the exam. Students which have excused absences and are unable to participate in a group assignment, activity or assessment will either complete that assignment individually or be offered an alternative assignment to be determined by the instructor.

Homework  
Expect daily homework assignment. These assignments extend and reinforce the daily lesson. All assignments are expected to be completed in full and on time. Students will be given extra time if they are out for an excused absence. However, in accordance with the QCHS Student Handbook, students not present due to field trips or school sponsored events are expected to complete assignments prior to missing class and are not given extra time to complete assignments or make-up tests.

Projects and Class Activities  
There will be several projects and/or group activities assigned that are designed to enhance the study of the course material. These projects/activities will help develop critical thinking skills and will require graphing calculators and/or computer applications. Research has shown that achievement levels are higher and retention greater when learning takes place in a cooperative environment. Students which have excused absences and are unable to participate in a group assignment, activity or assessment will either complete that assignment individually or be offered an alternative assignment to be determined by the instructor.

Exams  
There will be a cumulative test at the end of each unit (100 points). Some units may have a quiz (10-20 points) or a mid-chapter test worth 50 points.

Follow-up Exams  
Exams MUST be taken on the scheduled date unless prior arrangements have been made with the instructor. If you miss an exam and cannot take it before they are returned to class (usually the next class period), you must take a make-up exam.
Grading Procedure
Grades are weighted using the grading scale provided:

- 50% Tests & Quizzes
- 30% Class Activities & Projects
- 10% Homework
- 10% Final Exam

A: 90 – 100%
B: 80 – 89%
C: 70 – 79%
D: 60 – 69%
F: 0-59% or excessive absences

Dual Enrollment (CGCC MAT 187)
Chandler Gilbert Community College (CGCC) offers dual enrollment opportunities at QCHS. Class registration and tuition information for enrollment in MAT 187 will be distributed as it becomes available. The CGCC Dual Enrollment liaison is Mrs. Lechner in the library. She is a great resource for answering any dual enrollment questions. Also, you may find answers to questions about the dual enrollment program at QCHS and CGCC at [http://www.cgc.maricopa.edu/Academics/Dual/Pages/Home.aspx](http://www.cgc.maricopa.edu/Academics/Dual/Pages/Home.aspx)

CGCC MAT 187 Grading Procedure
Grades for CGCC MAT 187 will be submitted to CGCC at the end of the spring semester. Students must take the CGCC approved Final Exam (tentatively planned for December). CGCC grades are determined in the following matter:

- Fall Semester Grade (before Final Exam): 40%
- Spring Semester Grade (including Final Exam): 40%
- CGCC MAT 187 Final Exam (December): 20%

Electronic Devices
QCHS does not permit the use of electronic devices during class time. This includes but is not limited to mobile phones, personal listening devices, laptops (unless prior approval for taking notes or presentations), gaming device, Kindles, or any other distracting electronic device. Also, I do not allow headphones to be worn or visible while in class. If any electronic device is visible during class time it is assumed to be in use.

Expectation of Student
- I expect you to attend every class.
- I expect you to be in class on time.
- I expect you to be prepared for every class by doing the assignment and bringing required materials.
- I expect you to participate in class activities.
- I expect you to contact the teacher or another student when you are absent to find out your assignments.
- I expect you to be courteous and respectful to me and to your classmates.
- I expect you to maintain a positive attitude.
- I expect you to understand the course will be meaningful to you according to your attitude and the effort you put forth.
- I expect you to follow all school rules.

Consequences
If a student chooses to break a rule (exception to this plan is the school policy on consequences for being tardy to class and for inappropriate use of electronic devices), then:

- **1st Offense:** Warning/Conference with student
  - Documented
- **2nd Offense:** Parent Notification
  - Teacher/Department Consequence
- **3rd Offense:** Written Referral/ Parent Notification
  - Teacher/Department Consequence
- **Severe Offense:** Security will remove student immediately
  - Administrator Conference