



Instructor: Mrs. Stacey Bowser

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Office Hours:

Available times for extra help will be posted weekly on the front whiteboard. Students are encouraged to speak with me to work out a time to meet and receive any extra help.

Bowser's Daily Schedule

1st Precalculus

2nd QR

3rd Precalculus

4A Lunch

4B QR

5th Precalculus

6th Precalculus

Textbook

Precalculus with Limits: A Graphing Approach (4th edition). Larson, Hostetler and Edwards, 2005

Students will not be issued a textbook but the Precalculus curriculum closely follows the above textbook. There is an available classroom set of textbooks available for use in my classroom only. Students may also check out their own copy from the school bookstore.

Course Description / Content

Prerequisites: Algebra 2 (high school credit)

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 and logarithmic functions, transformations, conic sections, and trigonometry. The course may also cover additional topics in: matrices, vectors, polar coordinates, probability, sequences and series and an introduction to calculus and limits.

Semester 1 Topics

- I. Functions Review
 - a. Graphs of Functions
 - b. Combinations of Functions
 - c. Inverse Functions
- II. Quadratic Functions
 - a. Quadratic Models
 - b. Complex Numbers
- III. Polynomial Functions
 - a. Factoring Higher Order Polynomials
 - b. Real Zeros of Polynomial Functions
- IV. Rational Functions
 - a. Operations with Rational Expressions
 - b. Graphs of Rational Expressions
 - c. Solving Rational Equations
- V. Logarithmic Functions
 - a. Graphs of Logarithmic Functions
 - b. Properties of Logarithms
 - c. Solving Exponential & Logarithmic Equations
 - d. Exponential & Logarithmic Modeling
- VI. Conic Sections
 - a. Writing and Graphing Equations
 - b. Circles, Parabolas, Ellipses, Hyperbolas
 - c. Classifying 2nd Degree Equations

Semester 2 Topics

- VII. Trigonometric Functions & Applications
 - a. Right Triangle Trigonometry
 - b. Degrees & Radians
 - c. Trigonometric Functions on the Unit Circle
 - d. Graphing Trigonometric Functions
 - e. Inverse Trigonometric Functions
 - f. The Law of Sines & the Law of Cosines
- VIII. Analytic Trigonometry
 - a. Trigonometric Identities
 - b. Solving Trigonometric Equations
 - c. Additional trigonometric Identities
- IX. Optional Units (time allowing)
 - a. Intro to Calculus
 - b. Matrices
 - c. Intro to Vector

Calculator

A Texas Instruments TI-84 series graphing calculator is required.

Specifically, I recommend the TI-84 Plus CE graphing calculator, as it is the model I use for demonstration. However any of the TI-84 series will work. The TI-84 series are the graphing calculators that our text refers to and offers keystroke instruction 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/may 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. It is the student's responsibility to pick up any work missed. Students will be allowed the number of days absent plus one day to make up assignments or tests for an excused absence. Work that was assigned prior to an absence will be due upon return to class.

Extra help

It is the student's responsibility to make arrangements with the teacher for any extra assistance before school, during A Hour, or after school. NHS tutors are available.

Homework

Expect daily homework assignments. Generally, homework will be distributed at the start of each unit and collected when the unit is complete. Each assignment extends and re-enforces the daily lesson. All assignments are expected to be completed in full each day and may be collected/graded daily. However, homework is turned in at the end of the unit. Each assignment is checked (stamped) daily for completion and understanding. Homework stamps will be credited back to students as extra credit on the unit test or additional credit for homework. Students who are absent are expected to complete the assignment and turn it in at the end of the unit along with the other daily assignments. Absent students cannot receive a homework stamp for that assignment, but will be given full credit for completion. Notes are available on the class website or from other students. All homework is due the day of the unit test, no exceptions! Students who have extended absences (excused) are encouraged to contact me and make arrangements for assignments, these students will be given extra time as needed. 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.

Late Work Policy

Per the student handbook, Students may turn in late work for a minimum of 70% and a maximum of 90% of the credit earned. Students can turn in late work or make-up work through the end of the unit assessment.

Projects and Class Activities

Projects and/or group activities may be assigned which are designed to enhance the study of the course material. These projects/activities will help develop critical thinking skills. 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. Projects are weighted similar to tests. No project will be accepted late unless previous arrangements have been approved, even if the student is absent on the due date arrangements must be made to ensure the project is turned in on time!

Tests and Quizzes

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.

Make-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:

60% Tests & Quizzes

20% Assignments

20% Final Exam

A: 90 – 100 %

B: 80 – 89%

C: 70 – 79%

D: 60 – 69%

F: 0-59% or excessive absences

Electronic Devices

Students are not permitted to use cell phones or other electronic devices during instructional time, unless given teacher permission. Students should not use their cell phone when going to the bathroom or other non-instructional areas. If a student is using a phone in the hallway during instructional time, it may be confiscated by campus administration and returned upon conclusion of the school day. 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. Students choosing to use their electronic device during instructional time may have the device taken into my possession and returned to them at the end of the school day (after the last period has been dismissed). Repeated offenses will follow the consequence plan below.

Restroom Use

The restroom should be used during the breaks. Students should sign in and out for restroom breaks and be sure to take the colored lanyard for the building. Students are expected to use the restroom closest to their classroom. Students should not use their cell phone when going to the bathroom. If you are found in the hall using a cellphone during instructional time it may be confiscated and returned at the end of the day.

Drinks on Campus

Only water or drinks with a twist off cap will be permitted on campus

Movie/Film Policy

Occasionally, a movie or video may be shown if the content is tied to the curriculum. A parental request form is at the end of this syllabus. Signing it gives the teacher permission to show films with the ratings of "NR" (Pre 1967) "G", or "PG", and/or Edited Edition films. If parents have concerns please let the teacher know.

Academic Integrity

"Integrity is a character-driven commitment to honesty, doing what is right, and guiding others to do what is right."

(<https://provost.asu.edu/academic-integrity>)

All students are expected to complete ALL assignments and assessments with honesty and integrity.

Violations include:

- Cheating on an academic evaluation or assignment.
- Plagiarizing.
- Academic deceit, such as fabricating data or information.
- Aiding in the above violations and inappropriately collaborating.

Consequences include:

- Loss of credit (score of 0% for assignment)
- Referral to Administrator for school consequences including detention, suspension or withdrawal from class.

AVID

QCHS is proud to support AVID strategies throughout our school. Students will use numerous organization strategies, graphic organizers and WICOR strategies. We encourage all students to develop a plan for after high school. In addition, we will encourage all students to explore college and career options.

Binders: All students are expected to keep a clean, organized binder throughout the year. All student binders must include:
Tabbed Dividers that can be labeled for each class (6 total)
A pencil pouch with pencils, pens, highlighters, colored pencils, and a ruler, notebook paper or Cornell Note paper.

Planners: All students should have an agenda planner/daily calendar to help them record assignments for all of their classes plus extracurricular activities, chores and other home responsibilities. Planners will be checked weekly and Incentives will be provided to students who use their planner to help keep themselves organized.

Expectations of Students

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, including graphing calculator

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

The consequences for students choosing to break school rules, cause classroom disruptions, or interfere with the safety of themselves or others will be dealt with in the following manner with repeated offenses being considered as acts of insubordination:

1st Offense: Warning/Conference with student/Parent notification/Possible Classroom Consequence

2nd Offense: Written referral/ Parent notification/Possible Classroom and/or Administrative Consequence

Severe Offense/Repeated Offense: Security will remove student/Parent notification/Class withdrawal