



**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 extra help.

#### Bowser's Daily Schedule

1<sup>st</sup> Precalculus  
 2<sup>nd</sup> QR  
 3<sup>rd</sup> Precalculus  
 4A Lunch  
 4B QR  
 5<sup>th</sup> Precalculus  
 6<sup>th</sup> Precalculus

#### Textbook

Using and Understanding Mathematics A Quantitative Reasoning Approach, Bennett, Briggs; 7th ed.

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

#### MyMathLab

We will be using MyMathLab.com for homework assignments, some assessments, review, and text availability at home. Each student will be assigned a login and password. I will be posting information on my website as needed and sending home information as it becomes available. Students will have designated time in class to work on assignments, projects and activities. There are also computers in the library available for students who need additional time online while at school. Please contact me if you have any questions or concerns.

#### Course Description

*Prerequisites: Algebra 2 (high school credit)/Dual Enrollment Credit Available for CGCC MAT141, eligibility dependent on placement test score and successful CGCC registration and enrollment*

This course is intended as a course for 12th graders with non-STEM post-secondary intentions. Quantitative reasoning utilizes basic mathematical and reasoning concepts and operations required for problem solving, decision making, economic productivity and real world applications. Students should acquire the skills necessary to make rational decisions based on real data. Students will be able to report their conclusions in a precise and accurate manner using the language, tools, and symbolism of mathematics using a variety of technology and methods. A graphing calculator is required, please see instructor for the specific model recommended.

#### Course Content Outline by Semester

##### **Semester 1**

- |   |  |
|---|--|
| <p>I. Thinking Critically</p> <ol style="list-style-type: none"> <li>a. Fallacies, deceptive arguments</li> <li>b. Logic, truth values, truth tables, logical connectors</li> <li>c. Sets, Venn diagrams</li> <li>d. Inductive &amp; deductive arguments</li> </ol> <p>II. Approaches in Problem Solving</p> <ol style="list-style-type: none"> <li>a. Unit Analysis and standardized units</li> <li>b. Unit Analysis as a problem-solving technique</li> </ol> <p>III. Numbers in the Real World</p> <ol style="list-style-type: none"> <li>a. Use /Abuse of percentage</li> <li>b. Perspective of large and small numbers</li> <li>c. Exploring errors that affect measures and numbers in the news</li> <li>d. Index numbers</li> <li>e. Interpreting deceptive numbers correctly</li> </ol> | <p>IV. Managing Your Money</p> <ol style="list-style-type: none"> <li>a. Personal Budgeting</li> <li>b. Compound Interest</li> <li>c. Savings plans, Stocks &amp; Bonds</li> <li>d. Student loans, credit cards, mortgages</li> <li>e. Income taxes &amp; political issues</li> <li>f. Federal budget process</li> </ol> <p>V. Statistical Reasoning</p> <ol style="list-style-type: none"> <li>a. Statistical Studies</li> <li>b. Evaluating Statistical Claims</li> <li>c. Interpret common types of media graphics</li> <li>d. Investigate correlations</li> </ol> <p>VI. Putting Statistics to Work</p> <ol style="list-style-type: none"> <li>a. Mean, Median, Mode and Distribution</li> <li>b. Common Measure of Variation</li> <li>c. Statistical significance, margin of error, hypothesis testing</li> </ol> |
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## Semester 2

- |       |                    |  |   |
|-------|--------------------|--|---|
| VII.  | Probability        |  |   |
|       | a.                 | Theoretical, Relative Frequency & Subjective |   |
|       | b.                 | Independent & Conditional                    |   |
|       | c.                 | Law of Large Numbers and Applications        |   |
|       | d.                 | Risk (probability)                           |   |
|       | e.                 | Permutations & Combinations                  |   |
| VIII. | Exponential Growth |  |   |
|       | a.                 | Linear Growth                                |   |
|       | b.                 | Exponential Growth                           |   |
|       | c.                 | Doubling & Half-life applications            |   |
|       | d.                 | Limits for growth                            |   |
|       | e.                 | Three important logarithmic scales           |   |
|       |                    | IX.  | Real World Modeling: Linear & Exponential           |
|       |                    |  | a. Functions  |
|       |                    |  | b. Linear Functions in Real-life                    |
|       |                    |  | c. Exponential Functions in Real-life               |
|       |                    | X.   | Business Math                                       |
|       |                    |  | a. Correlation Coefficients                         |
|       |                    |  | b. Break even point                                 |
|       |                    | XI.  | Discrete Mathematics (time allowing)                |
|       |                    |  | a. Analyze basic discrete structures and algorithms |

### 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 that 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 arrange with the teacher for any extra assistance before school, during A Hour, or after school. NHS tutors are available.

### Homework

Expect daily homework assignments as 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 may be turned in for full credit up until the unit test. Each assignment is checked daily for completion and understanding. 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 will be given full credit for completion if completed by the end of the unit. Notes are available on the class website, MyMathLab 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 makeup 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, with the exception being Quarter Projects which will be assigned at the start of each quarter and due at the end. These extended projects will be worth a proportionately appropriate grade weighting up to four times the weight of a unit test. Quarter projects emphasize mathematical reasoning skills and abilities needed to be more successful in this course and also in the real world.

**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!**

## 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.

## 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.

## 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 will be distributed at a later date, 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.

## 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

## 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.

### **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, 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:

*1<sup>st</sup> Offense:* Warning/Conference with student/Parent notification/Possible Classroom Consequence

*2<sup>nd</sup> Offense:* Written referral/ Parent notification/Possible Classroom and/or Administrative Consequence

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