TRENTON CENTRAL HIGH SCHOOL - CHAMBERS CAMPUS

135 E. Hanover Street, Trenton, New Jersey 08608 **Hope Grant**, *Principal*



Course Syllabus ALGEBRA II

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Room 410

Course Description

Building on the understanding of linear, quadratic and exponential functions from Algebra I, this course extends function concepts to include polynomial, rational, and radical functions. The standards continue the work of modeling situations and solving equations. Unit 1 standards focus on the similarities of arithmetic with rational numbers and arithmetic with rational expressions. Unit 2 extends students' algebra knowledge of linear and exponential functions to include polynomial, rational, radical, and absolute value functions. Unit 3 builds on previous knowledge of functions, trigonometric ratios, and circles in geometry to extend trigonometry to model periodic phenomena. Unit 4 explores the effects of transformations on graphs of functions and will include identifying an appropriate model for a given situation, requiring development of models more complex than those of previous courses. Unit 5 relates the visual displays and summary statistics learned in prior courses to different types of data & probability distributions. Samples, surveys, experiments and simulations will be used as methods to collect data.

Course Outline

Unit 1

Quadratic Functions and Equations; Complex Numbers; Linear Systems

Unit 2

Polynomials and Polynomial Functions; Radical Functions and Rational Expressions; Linear Systems; Quadratic Functions and Equations; Expressions, Equations and Inequalities; Logarithmic and Exponential Functions; Conic Functions

Unit 3

Periodic Functions and Trigonometry; Trigonometric Identities

Unit 4

Probability and Statistics

Course Assignments Weight (per school policy)

The chart below illustrates the breakdown of how graded assignments will be weighed in proportion to one another. Details regarding specific performance tasks and assessment criteria will accompany those assignments as a rubric. Although the course may include a number of non-graded assignments, completion of those tasks is essential to successfully satisfying your responsibilities for any tasks that are graded.

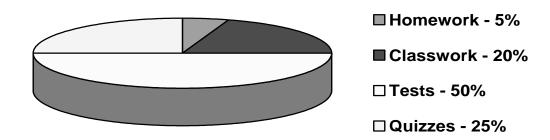
<u>Homework</u> includes, but is not limited to written assignments, worksheets, and other take home reinforcement activities as deemed necessary.

<u>Classwork/Class Participation</u> includes, but is not limited to do now's, collaborative assignments, worksheets

<u>Quizzes</u> include, but are not limited to chapter/section quizzes, binder checks, exit slips, surprise assessments

Tests include unit benchmarks, chapter tests

*It is required that you show work for all assignments. For each problem that does not have work shown, it will NOT BE COUNTED.



Makeup Policy

If you have been absent for any reason, you MUST present a written document signed by your parents/guardian(s) indicating the rationale(s) for the absence in order to receive full credit for makeup classwork, homework, tests or quizzes. IT IS YOUR RESPONSIBILITY TO ENSURE THAT YOU RECEIVE MAKEUPS FOR EXCUSED ABSENCES. IF YOU ARE LATE OR YOU CUT CLASS, THIS IS NOT AN EXCUSE, AND YOU WILL RECEIVE A ZERO FOR DO NOW "QUIZZES". You cannot make up do now's but you will be excused from the assignment. Makeup quizzes may be different from the original, but will have similar questions of the same concepts at hand. You have 3 days to make up assignments. If you miss a test, you will need to take make-up test within 2 days after returning.

Late Assignments

Homework will be given on a daily basis. Late homework **WILL NOT** be accepted unless you have an excused absence.

Required Materials

Pencil, folder, 3 ring binder (with 2 sections for Class Notes and Homework), textbook, graphing calculator (TI-83 or newer)

Classroom Rules

You, the student, are expected to:

- 1. Report to class **ON TIME** with class materials (At the bell, you should be in your seat, with necessary materials, ready to work).
- 2. Be **FREE OF ELECTRONIC DEVICES** during designated times.
- 3. Listen carefully (No talking while the teacher is talking!!!!!). Do not disrupt the class or teacher, or waste class time. Talking, texting, taking selfies, applying make-up or leaving your seat during quiet time or when the teacher is talking is disruptive and disrespectful. Don't do it. Remain in your assigned seat during class unless given permission to move. You must not interfere with a classmate's right to learn or the teacher's right to teach.
- 4. Work quietly. Do not disturb others who are working.
- 5. Come to class wearing appropriate attire as written in the student handbook. No hats, food or drinks (outside of water) is permitted in class.
- 6. Raise hand to speak and only one person speak at one time.
- 7. Be honest and respectful of ideas, people, and of the teacher's property. No put-downs, threats, or foul language will be allowed. This room should a safe place to explore ideas and be who you are. Keep hands, feet, objects, etc. to yourself and DO NOT WRITE ON THE DESKS.
- 8. Know that class dismissal is by the teacher when everyone is quiet and in their assigned seat. Clocks and bells DO NOT dismiss the class. Congregating by the door before dismissal is prohibited.
- 9. Remember to return your textbook, all of the classroom supplies and clean your area before leaving the classroom.

Student Responsibilities and Guidelines for Success

- Attend class except for emergencies and provide proper documentation upon return to class.
- Arrive on time for class with all required materials and assigned work.
- > Submit work on time or take an academic penalty. No late work will be accepted unless student is absent and provides proper documentation.
- > Be respectful of others ideas and possessions and their right to an uninterrupted class.
- ➤ Notebook entries must be dated with the objectives. It is the responsibility of the student to make-up any missed work or testing after an excused absence.

Web and other resources

Algebra *II textbook*

http://www.virtualnerd.com/algebra-2/all/

https://www.khanacademy.org/math/algebra2

http://mathbits.com/mathbits/studentresources/algebra2/algebra2student.htm

http://www.homeschoolmath.net/online/algebra.php

http://www.ixl.com/math/algebra-2

Tardy to Class

Tardiness is unacceptable; it is both rude to your classmates, teacher and is disruptive to the learning process going on in the classroom. After the warning bell, you are considered late to the class, unless you arrive with a pass.

- ➤ If you have 3 unexcused tardies you will receive a warning.
- ➤ If you are tardy 5 or more times your parents/guardians will be notified and you will be required to attend a teacher mandated after school detention.
- ➤ If you are tardy 8 or more times your parent will be notified and a Parent/Teacher Conference will be required.
- ➤ If you have 10 or more tardies, a discipline referral will be filled out.

Daily Assignments

Daily assignments will always be posted on the bulletin board or you can log in to powerschool.

Turning in assignments

For all assignments, you need to show all of your work (step by step in writing) in order to receive full credits. **If work is not shown, the problem will not be counted.** Do not copy from a friend. Copying from a friend is cheating, not learning

For classwork, you have to finish and submit it before leaving the class.

Returning assignments to students

Your assignments will be returned to you once the teacher completes grading (approximately a week after the assignment is collected).

Tests and Quizzes

Quizzes and tests are used to gauge your understanding. The best way to learn is to go over your mistakes. You will be allowed to correct quizzes and tests. You will be given up to a week to revise any quizzes that scored below an 80. All corrections MUST BE DONE ON A SEPARATE PIECE OF PAPER, which includes your name, date, block, problem numbers and original quiz. To receive full credit all work must be shown. The maximum amount of points that could be gained is half the amount that was lost.

Consequences of Classroom Rule Violations

Consequences for unacceptable behavior:

- warning
- > after school detention
- > student-teacher conference
- > call home
- parent-teacher meeting
- > referral to disciplinarian

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PARENT CONTRACT ALGEBRA II

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