

**ALGEBRA III
COURSE SYLLABUS
Bryan Wallen
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bwallen@centralr3.org

School Notes: <http://new.schoolnotes.com/bdubsrebels/>

Course Description: Algebra III is designed for High School Seniors who have not yet met the requirements to get into College Algebra. The purpose of this class is to prepare students for the ACT Math Exam, the COMPASS test math part, and College Algebra. The primary objectives of the course are to familiarize students with mathematical symbols and operations and to consistently reinforce function and graphing concepts so important in college math courses. Polynomial, rational, radical, exponential, and logarithmic equations and both linear and non-linear systems are covered to allow students to solve a wide variety of related applications featuring real data.

Instructional Philosophy: This course will be broken up into chapters. Each chapter will include homework assignments, quizzes, and at least one authentic assessment activity. There will be a major test at the end of each chapter. It is expected that all students will show their steps in the solution process of all problems assigned. In other words, the student must **SHOW THEIR WORK!** You will be given an opportunity to work on assignments in class. This is a privilege. If this privilege is abused, it will be taken away, and you can expect very little time in class to work on homework. An emphasis will be made in this class to focus on the ACT exam, the COMPASS test, and getting you ready for College Algebra.

Major Course Goals:

- 1) Review of the Real Number System
- 2) Work with Linear Equations and Inequalities
- 3) Examine various graphs and functions
- 4) Investigate Exponents, Roots, Radicals, and Polynomials
- 5) Explore Rational Expressions
- 6) Solve Quadratic Equations and Inequalities
- 7) Study Inverse, Exponential, and Logarithmic Functions
- 8) Introduce Basic Trigonometry, Sequences and Series, and the Conics

Major Course Objectives/Benchmarks by Quarter:

1st Quarter

- 1) Solve and graph absolute value equations and inequalities.
- 2) Explore all properties of real numbers.
- 3) Solve real-life problems using formulas.
- 4) Understand and compare the properties of linear equations and inequalities.

2nd Quarter

- 1) Describe and apply how to use inverses and compositions of functions.
- 2) Analyze properties of variation.
- 3) Investigate matrices and apply operations to matrices.
- 4) Analyze functions and their properties.

5) Use and solve systems of linear equations with 2 or more variables.

3rd Quarter

- 1) Use and apply factoring techniques to simplify expressions or solve equations.
- 2) Explore radicals and nth roots.
- 3) Apply properties of exponents to simplify expressions or solve equations.
- 4) Explore imaginary (non-real) and complex numbers.

4th Quarter

- 1) Apply properties of logarithms to simplify expressions or solve equations.
- 2) Generalize specific algebraic sequences and series.
- 3) Use trigonometric relationships with right triangles to determine lengths and angle measures.
- 4) Analyze Quadratic functions.
- 5) Investigate properties and graphs of the conic sections.

Major Course Projects and Instructional Activities: Instructional Activities will include but are not limited to: Lecture, Homework Assignments, Authentic Assessment Activities (Math Labs), Quizzes, Chapter Tests, Semester Finals, Reading Assignments, and Writing Assignments.

Course Assessment Plan:

- A.** There will be a test after each chapter. Each test will be worth 100 points. These problems will consist of problems similar to problems from the assignments, pre-test, or activities within the chapter.
- B.** Pop quizzes and bonus work will be given periodically at the teacher's discretion and will vary in points. Pop quizzes and bonus work cannot be made up if the student is absent
- C.** Each student will need a notebook with all of the algebra notes taken from the class. The students can use their notes on the test and a grade will be taken on the notebook approximately every 3-4 weeks. (If you are absent, you are still responsible for the notes taken on that day!)
- D.** All assignments will be graded on a partial credit system of grading. Meaning you will get credit for notes and writing out explanations of answers.
- E.** Grades for this course are determined as follows:

50%	Tests
20%	Quarter Final
15%	Homework
10%	Notebooks/Writing Assessments
5%	Labs/Quizzes

It is very important to do your homework and prepare yourself for the tests, not just one or the other.

F. Quarter Final Schedule; See Student Planner

G. Semester Grades will be determined as follows:

50%	1 st (3 rd) Quarter
50%	2 nd (4 th) Quarter

Classroom Expectations:

1. Students will respect their fellow classmates, the teacher, and themselves at all times.
2. Students will use their ears and brains at all times while in this class
3. No food or drink in this classroom(bottled water is excepted)
4. Ask questions when you don't understand
5. Always be prepared for class: paper, writing utensil, calculator, textbook, homework, reading book, and planner (random planner checks will be given and points assigned for these checks will contribute to your homework grade).
6. Students must attend class and be on-time, ready to work when the bell rings. This is essential in the real-world as well as in my class. If a student must be absent talk to me ahead of time to know what assignments/ projects, etc you will miss. In cases of emergencies please use the school notes web page to find out what you are missing. This webpage is updated at least weekly and has assignments, etc that we will be doing in class for that week. The website is <http://new.schoolnotes.com/bdubsrebels/>
7. The most important expectation of all is to always try!
8. Always use a pencil in this class.
9. Respect! Respect! Respect!

Supplies and materials needed: Bring your textbook to class everyday. You are responsible for your textbook while it is checked out to you. Do not write in it, lose it, or destroy it in any way. Make sure that you have paper and a writing utensil everyday. I would strongly suggest having a scientific calculator for this class. It is not absolutely necessary though. I will have TI-82 graphing calculators available for in-class use only.

Homework Policy and Grading Scale:

Please refer to the Student Handbook for the Homework Policy. The grading scale is as follows:

A.....100-95 A-.....94-90 B+.....89-87 B.....86-83 B-.....82-80 C+.....79-77
C.....76-73 C-.....72-70 D+.....69-67 D.....66-63 D-.....62-60 F.....59-0

Recommended/Required Reading: In this class, you will be required to read the equivalent of 3 books for the entire year. Most of the reading in this class will be out of our textbook. You will be given a reading assignment regularly and will be expected to read it and be responsible for what you have read. You will fill out a reading log for each assignment and turn in the reading log at the end of the semester.

Extra Help: I am more than willing to help any and all students be successful in this class, but it is the student's responsibility to ask for help. If a student needs help before school, they can make plans with me to be here early. Students may also take advantage of our extra help program P.A.S.S., which takes place after school. My P.A.S.S. days are Monday and Tuesday from 2:45-3:30 when the PASS program begins. **Please know that a student does not have to be assigned to pass in order to take advantage of the program**

Time and place to be reached by parent: My school email address is bwallen@centralr3.org. This is probably the best way to reach me. Please feel free to email with any questions and/or concerns and I will do my best to reply. I can also be reached at the high school by calling 431-2616, extension 4160. My planning period is from 1:50- 2:40 and this will probably be the best time for me to return your calls.