

Algebra 1B
09-10 Course Syllabus
Mr. Schweiss
kschweiss@central3.org
school notes page: <http://schoolnotes.com/63601/kschweiss01.html>

Course Description: Algebra IB is a junior level course that integrates geometry, probability, and statistics together with Algebra. This course is the second part to a full Algebra 1 course. Students learn to use mathematics effectively through problem-solving experiences that include use of higher-order thinking skills in daily assignments, a wide variety of problem types in the questions, and open-ended problems. They also learn to read and understand mathematics on their own, and to express this understanding both orally and in writing. This class will help students to be successful on the high stakes tests like the SAT, ACT, and state exams. Upon completion of this course, students should have mastered the skills necessary to enter Math Analysis. There will also be a State Exam at the end of this course that the student must pass. This particular exam replaces the MAP test that was taken a couple of years ago.

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 and a quarter final at the end of each quarter, which will be over all material covered in the given quarter. It is expected that all students will show their steps in the solution process of every problem, essentially **STUDENTS MUST SHOW WORK!** Students are given an opportunity to work on assignments in class. This is a privilege and if abused can and will be taken away, meaning no time in class for assignments. An emphasis will be made in this class to focus on the end of course exam, ACT, and all things leading to our students being successful in future college preparatory math courses.

Major Course Goals:

- Explore and use variables, function patterns, and graphs
- Use mathematical operations with rational numbers and explore their properties
- Find probabilities of events and compound events
- Solve equations and inequalities
- Use graphs of relations and functions
- Graph lines in a variety of methods
- Solve systems of equations and inequalities
- Explore and use properties of exponents and exponential functions
- Factor polynomials
- Explore quadratic equations and functions

Major Course Objectives/Benchmarks by Quarter:

Being able to answer these questions for each quarter means you have mastered the subject matter for that quarter.

1st Quarter: What is a variable and how can it be used in real-life problems? What are rational numbers and where are they found in the real world? How can you find the probability of an event occurring? How do you solve equations and how can this be useful in everyday life?

2nd Quarter: How is solving and inequality different from and similar to solving an equation? How can use the ability to read a graph, draw information from the graph, and use that information to extrapolate data useful?

3rd Quarter: How do you graph a linear equation? Why is it useful to be able to graph lines in many different ways? How do you solve a system of equations/inequalities? How can this be used in real life problem solving?

4th Quarter: How can you use exponents and their properties in real life to make things easier? How do you graph quadratic equations and why is it useful to do so? How does factoring help with this?

Major Course Projects and Instructional Activities: Instructional activities will include but are not limited to: lecture, homework assignments, authentic assessments, quizzes, chapter tests, quarter finals, reading assignments, and writing assignments. There will be a major project each semester. These projects will show how math can be applied in real-world situations.

Recommended Readings:

- Algebra Unplugged
- The Book of Think: Or, How To Solve a Problem Twice Your Size
- I Hate Mathematics Book
- Math for Smarty Pants
- A Beautiful Mind

Course Assessment Plan: Grades for this course are determined by two factors, first is their overall grade for the quarter (80%) and second is their grade on the quarter final(20%). The overall grade for the quarter is determined by a 60% test 40% homework formula. It is very important to do your homework and prepare yourself for the tests, not just one or the other.

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://schoolnotes.com/63601/kschweiss01.html>
7. The most important expectation of all is to always try!

Supplies and Materials Needed: All students need to bring paper and pen/pencil to class everyday, along with their homework and textbook for that day. Calculators will **NOT BE PROVIDED** for use in the classroom. On most assignments, a calculator may be used but I will not provide them for students. The student is responsible for buying a calculator and bringing it to class every day. All assignments and test work can be done without a calculator, but they can be time saving and beneficial. Planners must be in class with you everyday.

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

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 Thursday from 2:42- 3:30. **Please know that a student does not have to be assigned to pass in order to take advantage of the program.**

NEW EXTRA HELP THIS YEAR: The new books we have chosen for this year come with a variety of programs that can help students outside of the classroom. Throughout the book you will find links to the Prentice Hall Web site. Use the web codes provided with each link to gain access to online material.

- Go to PHSchool.com
- Enter the web code of the lesson you desire
- Click Go!

For every lesson there is an online quiz, which you can access with the webcode ata-0101(for ch.1 lesson 1) through ata-1208 (for chapter 12 lesson 8). Also every lesson has additional online help for students to complete homework, including a video tutor for the material. Enter ate-0101 for chapter 1 lesson 1, ate-0208 for chapter 2 lesson 8 and so on.

Time and Place to be Reached by Parent: My school email address is kschweiss@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 EXT. 4148 and leaving a message for me, I will return your call as quickly as possible. My planning period is from 1:50- 2:40 and this will probably be the best time for me to return your calls.