

2011 ~ 2012 ALGEBRA 1B SYLLABUS

Teacher: Mr. Leckie Room: 508 Course: Algebra 1B Textbook: <i>Algebra 1 (Prentice Hall)</i>
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COURSE CONTENT: Algebra 1B addresses the topics of second semester Algebra 1 over the course of a year. Successful completion of Algebra 1A and Algebra 1B satisfies the District #20 high school graduation requirement for Algebra 1.

1st Semester: 1 block = 90 min ... (39 blocks total)

... Schedule is tentative due to Snow Days, Late Starts, Scantron Testing, or other interruptions.

Scantron Testing ... Early First Semester (1 block)

Chapter 6: Linear Equations & Their Graphs (7 blocks total)

Solving Equations & Linear Review (1 block)

§6.1 Rate of Change and Slope (1 block)

§6.5 Point-Slope Form and Writing Linear Equations (1 block)

§6.2 Slope-Intercept Form (1/2 block)

§6.4 Standard Form (1/2 block)

§6.8 Graphing Absolute Value Functions (1 block)

Review (1 block)

TEST (1 block)

Chapter 7: Systems of Equations and Inequalities (10 blocks total)

§7.1 Solving Systems by Graphing (1 block)

§7.2 Solving Systems Using Substitution (1 block)

§7.3 Solving Systems Using Elimination (2 blocks)

§7.4 Applications of Linear Systems (1 block)

§7.5 Linear Inequalities (1 block)

§7.6 Systems of Linear Inequalities (1 block)

Review (2 blocks)

TEST (1 block)

Chapter 8A: Exponents (9 blocks total)

§8.2 Scientific Notation (1 block)

§8.1 Zero and Negative Exponents (1 block)

§8.3 Multiplication Property of Exponents (1 block)

§8.4 More Multiplication Properties of Exponents (1 block)

§8.5 Division Properties of Exponents (1 block)

Rational Exponents (1 block)

Review (2 blocks)

TEST (1 block)

Data and Statistics (6 blocks total)

Interpreting Various Types of Graphs (1 block)

§1.6 Mean, Median, Mode, Range (Outliers related to Standard Deviation) (1 block)

Box Plots and Outliers related to Interquartile Range, and how data changes affect graphs (1 block)

Dot Plots and Histograms (1 block)

Review (1 block)

TEST (1 block)

Personal Financial Literacy (PFL) In Class Project (1 to 2 blocks)

What affects take home pay?

Make a Budget

FIRST SEMESTER FINAL REVIEW (3 blocks)

FIRST SEMESTER FINAL EXAM (1 block)

2nd Semester ... (44 Blocks total) ... CSAP Testing may interfere with this tentative schedule.

Scantron Testing ... 1 early and 1 late in the semester (2 blocks)

Chapter 9: Polynomials and Factoring (10 blocks total)

§9.1 Adding and Subtracting Polynomials (1 block)

§9.2 Multiplying and Factoring (1 block)

§9.3 Multiplying Binomials (1 block)

§9.4 Multiplying Special Cases (1 block)

§9.5 Factoring Trinomials of the type $x^2 + bx + c$ (1 block)

§9.6 Factoring Trinomials of the type $ax^2 + bx + c$ (1 block)

§9.7 Factoring Special Cases (1 block)

Review (2 blocks)

TEST (1 block)

Chapter 10: Quadratic Equations and Functions (10 blocks total)

§10.1 Exploring Quadratic Graphs (1 block)

§10.2 Quadratic Functions (1 block)

§10.3 Solving Quadratic Equations (1 block)

§10.4 Factoring to Solve Quadratic Equations (1 block)

§10.5 Completing the Square (1 block)

§10.6 Using the Quadratic Formula (1 block)

§10.7 Using the Discriminant (1 block)

Review (2 blocks)

TEST (1 block)

Chapter 8B: Exponential Functions (9 blocks total)

§8.6 Geometric Sequences (with a little review of Arithmetic Sequences) (1 block)

§8.7 Exponential Functions (1 block)

§8.8 Exponential Growth and Decay (2 blocks)

§10.8 Choosing a Linear, Quadratic, or Exponential Model (2 blocks)

Review (2 blocks)

TEST (1 block)

Chapter 11: Radical Expressions and Equations (7 blocks total)

§11.1 Simplifying Radicals (2 blocks)

§11.2 Operations with Radical Expressions (1 block)

§11.3 Solving Radical Equations (1 block)

Review (2 blocks)

TEST (1 block)

Personal Financial Literacy In Class Project (2 blocks)

Impact of Interest Rates

Cost and Benefits of Credit

Analyze lending sources

SECOND SEMESTER FINAL EXAM REVIEW (3 blocks)

SECOND SEMESTER FINAL EXAM (1 block)

STUDENT EVALUATION

Both formative and summative evaluations are used during this course. There will be quizzes approximately every 2 days of instruction. Each student must earn 70% or higher, or must retake the quiz during academy/interventions. All quizzes must be retaken before the chapter exam. TWO chapter exams from each semester may be retaken. In the event of a retake, the score on the retake is recorded and the original is dropped.

Grading: Your 18 – week grade will be weighted with the following percentages:

- Assignments: 15%
- Quizzes: 15%
- Tests: 70%

Final:

- The Final exam will be cumulative and worth 25% of your semester grade.
In other words: $0.75*(18\text{-week grade}) + 0.25(\text{Final Exam grade}) = \text{Semester Grade}$

SCALE: Grades will be posted on Infinite Campus as often as possible.

- 89.50 – 100% A
- 79.50 – 89.49% B
- 69.50 – 79.59% C
- 59.50 – 69.49% D

Assignments:

- Assignments will be given daily. Whether the assignments are intended to be completed in class, at home, individually or in a group will depend on the assignment.
- There will be assignments assigned for EVERY section. If you do not practice the concepts outside of class you are only hurting yourself.
- Assignments will be corrected based on completeness only, but it is only beneficial if you correct it.
- Assignments should be completed every day, but will be collected on the days of a quiz or a test. (about every 2 days)
- Homework will be recorded in a category called “Complete List of Assignments” and a cumulative percentage recorded in the gradebook (about twice each chapter) under “Cumulative Homework Score”. It is this cumulative score that counts for 15% of your grade. The result of this is that turning in late/missing work will help your grade less and less the longer you wait to turn it in.
- The ABSOLUTE LAST day for late homework is the week before final exams.

Quizzes:

- Quizzes will be given about every 2 two days depending on the schedule.
- After correcting the original, quizzes will be retaken until a student earns a 70% or higher.
- If necessary (and time allows) a retake of the retake will be given until 70% or higher is achieved.
- Quizzes may be retaken regardless of the score.
- Retakes of all quizzes MUST be completed before the chapter exam.
- You must correct your original quiz before taking the retake.
- If you are not here the day the quiz is given, you will receive a 0 on the original, but you must take the retake quiz.

Tests:

- Tests will usually be given after the completion of each chapter, but usually contain review questions from previous chapters.
- A review sheet/problem set will typically be given for each test, and you should understand ALL topics listed.
- Tests may be given in two parts (with and without a calculator).
- Most (if not all) chapter tests will be weighted the same.
- Make up tests are usually different than the original exam.
- Two retakes of chapter exams will be allowed each semester.
 - Corrections to original test must be done prior to retake
 - Retakes may have fewer questions than the original, meaning each question is worth more.

CLASSROOM EXPECTATIONS:

#1: You are expected to be ON TIME. There are no bells, but the clocks are set to the exact time. Be here early, so you are ready to start at the right time.

#2: You are expected to treat EVERYONE in the class with the same attitude of respect you expect to be treated. This includes the language you use, the attitude you bring to class, and the way you respond when asked to do something in class.

Consequences: Failure to follow the above expectations will result in any of the following:

1. Warning ... Student – Teacher conference ... In the case of tardies, you will receive 3 warnings.
2. Parent phone call and/or Academy Detention
3. Referral to an Administrator

ABSENCES:

- It is **YOUR** responsibility to find out what you missed!!!!!!!
- You will be given a list of assignments for every chapter. If you lose yours, print out another one online.
- The Academy/Interventions period is time set aside for you to get and complete your make up work. It may take more than one academy period for you to get caught up.
- It is YOUR responsibility to show up during Academy/Interventions or after school to make up missing work.

TECHNOLOGY

One of the goals of this course is to familiarize students with the use and capabilities of a graphing calculator.

All students are required to have a calculator that is capable of doing the following: (we may not use all of these this year)

- Graph functions
- Calculate the intersection of two curves
- Calculate the zeros of a function
- Perform Linear, Quadratic, Exponential, and Logarithmic Regression on a set of data
- Enter matrices and calculate matrix operations

In class instruction will be given using a TI-83+ and/or a TI-84+. *NOTE:* The TI-89 or TI-92 is not allowed in this course.

SUPPLIES:

The following is a list of supplies (other than your ***book***) that will be needed throughout the course of the year.

- A notebook or a section of a notebook dedicated to this class for notes and handouts. (I will not collect this)
- An approved graphing calculator that has the ability to perform the skills listed previously under the “Technology” section ... We will use a TI-83+ or a TI-84+ in class.
- Pencils (I will not be providing pencils at any time)
- Notebook Paper and Graph Paper
- ID CARD --- used to check out any supplies that we might use in class.

RESOURCES AVAILABLE:

Mr. Leckie's website: <http://www.chaoticgolf.com>

Assignment Sheets
Review Sheets with Solutions
Graph paper available to be printed

Syllabus may be read online
Contact Mr. Leckie through an email form
Limited links to other Math sites on the Internet

Academy/Interventions ... Monday, Tuesday, and Thursday

IT IS YOUR RESPONSIBILITY TO ATTEND INTERVENTIONS WHEN REQUIRED!

Tuesday of every week has been designated for math interventions. You may attend voluntarily whenever you feel like you need help. You may also be required to attend for various reasons ...

1. Not turning in all your homework,
2. Falling behind in work due to absences or other reasons,
3. Having a D or F,
4. Earning less than a 70% on any quiz.

Failure to show when required may result in an academy detention, referral to assistant principal, or loss of privileges (off campus, partials, extracurricular or athletic activities).