

**EAST VALLEY HIGH SCHOOL
5525 VINELAND AVE
NORTH HOLLYWOOD, CA 91601**

CLASS GUIDELINES

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Textbook: Big Ideas Math-Algebra 2 by Larson & Boswell

One of Primary goals of Mathematics is to help students gain mathematical power. It means ability to explore, conjecture and reason logically, as well as the ability to use a variety of mathematical Practices effectively to solve non routine problems. In addition, for each individual, mathematical power involves the development of personal self-confidence.

Course Description:

The purpose of this course is to extend students' understanding of functions and the real numbers, and to increase the tools for modeling the real world. They extend their notion of number to include complex numbers and see how the introduction of this set of numbers yield the solutions of polynomial equations and the Fundamental Theorem of Algebra. Students explore the relationship between exponential functions and their inverses, the logarithmic functions. Trigonometric functions are extended to all real numbers, and their graphs and properties are studied. Finally, students' statistics knowledge is extended to understanding the normal distribution, and they are challenged to make inferences based on sampling, experiments, and observational studies.

Program Philosophy: Rigor and Balance with Real-Life application.

The Big Ideas Math Program

1) Balances conceptual understanding (Explorations in every section) with procedural fluency (solved examples, direct instruction lesson, allow and provide the opportunity to use clear, precise mathematical language). Real life applications help turn mathematical learning into an engaging and meaningful way to see and explore the real world.

2) Offers students many ways to personalize and enrich the learning experience of all levels of learners through "Dynamic Student Edition", available online or as eBook App. It provides you learning resources, including engaging tutorials, interactive manipulations, flashcards, vocabulary support, and games that enhances and promotes mathematical understanding.

Online lesson tutorials support for every example in the textbook (Useful if you missed a class, need a second explanation, or need extra assistance with a homework assignment).

3) Has Dynamic Investigations that are powered by Desmos and GeoGebra.

4) Has Real-life STEM Videos that allow students to further engage with mathematical concepts.

In Mathematics courses, the logic that leads to an answer is usually more important than the answer itself. The right answer is no guarantee that students know what problem is all about.

Topics to be Covered:

Topics will be covered according to their subject matter, not according to the chapter or section order.

Unit 1: Model and Reason with equations and Expressions.

- 1) Create Equations
 - Create equations that describe numbers or relationships (A – CED.1 ; A – CED.2; A – CED.3; A – CED.4)
- 2) Reasoning with Equations and Inequalities
 - Understand solving equations as a process of reasoning and explain the reasoning. (A – REI.2).
 - Solve equations and inequalities in one variable (A – REI.3.1)
 - Represent and solve equations and inequalities graphically (A – REI.11)

Unit 2: Structure in Expressions and Arithmetic with polynomials.

- 1) Structure in Expressions
 - Interpret the structure of Expressions (A – SSE.1)
 - Write expressions in equivalent forms to solve problems (A – SSE.2, A – SSE.4).
- 2) Arithmetic with Polynomials and Rational Expressions
 - Perform arithmetic operations on polynomials (A – APR.1)
 - Understand the relationship between zero and factors of polynomials (A – APR.2, A – APR.3)
 - Use polynomial identities to solve problems (A – APR.4, A – A.PR.5)
 - Rewrite rational Expressions (A – APR.6, + A – APR.7)

Unit 3: Functions.

- 1) Interpreting functions
 - Interpreting functions that arise in applications in terms of context (F – IF.4)
 - Analyze functions using different representations (F – IF.5, F – IF.6, F – IF.7, F – IF.8, F – IF.9)
- 2) Building Functions
 - Build a function that models a relationship between two quantities (F – BF.1)
 - Build new functions from existing functions (F – BF.3, F – BF.4)
- 3) Linear, Quadratic and Exponential Models
 - Construct and compare linear, quadratic and exponential models and solve problems. (F – LE.4, 4.1, 4.2)
- 4) Number and Quantity – Complex number system
 - Perform arithmetic operations with complex numbers (N – CN.1, N – CN.2)
 - Use complex numbers in polynomial identities and equations (polynomials with real coefficients). (N – CN.7, N – CN.8 (+), N – CN.9 (+))

Unit 4: Geometry and Trigonometry

- 1) Expressing Geometric properties with Equations
 - Translate between the geometric description and the equation for a conic section (G – GPE.3.1).
- 2) Trigonometric Functions
 - Extend the domain of the trigonometric functions using the unit circle (F – TF.1, F – TF.2, F – TF.2.1)
 - Model periodic phenomena with trigonometric functions (F – TF.5)
 - Prove and apply trigonometric identities (F – TF.8).

Unit 5: Statistics and Probability.

- 1) Interpret categorical and quantitative Data
 - Summarize, represent and interpret data on a single count or measurement data. (S.ID.4)
- 2) Making Inferences and Justify conclusions
 - Understand and evaluate random processes underlying statistical experiments (S.IC.1, S.IC.2)
 - Make inferences and justify conclusions from sample surveys experiments and observational studies (S.IC.3, S.IC.4, S.IC.5, S.IC.6)
- 3) Using Probability to make Decisions
 - Use probability to evaluate outcomes of decisions (S.MD.6(+),S.MD.7(+))

Note: Abbreviations of Common Core Standards.

A – CE: Algebra – Creating Equations.

A – REI: Algebra – Reasoning with equations and Inequalities.

A – SSE: Algebra – seeing structure in Expressions.

A – APR: Algebra – Arithmetic with Polynomial and Rational Expressions.

F – IF: Functions – Interpreting functions.

F – BF: Functions – Building functions.

F – LE: Functions – Linear, Quadratic and Exponential Models.

N – CN: Number and Quantity – Complex Number System.

G – GPE: Geometry – Expressing Geometry Properties with equations.

F – TF: Functions – Trigonometric Functions.

S.ID: Statistics and Probability – Interpreting Categorical and Quantitative Data.

S.IC: Statistics and Probability – Making inferences and justifying Conclusions.

S.MD: Statistics and Probability – Using Probability to Make Decisions.

Grading policy:

Remember... Mathematics is not a spectator sport! Actively participating, reading carefully, and completing your assignments will contribute to your success in Algebra II, and in other mathematics courses you take in the future.

Grade Breakdown for Algebra 2.

- 10% warm-up
- 35% Class activities, projects, class works, group works, participation
- 40% Tests & Quizzes
- 10% Homework
- 5% Final exam
- **5% Extra credit for extra credit assignments, participation and character education.** (Characters refer to human values, values that allow us to live confidently and comfortably with other beings. Some of these values are: respect, resiliency, patience, integrity, dignity, humility, kindness, curiosity, modesty, accountability and perseverance).

Grading scale:

88 -100% **A** 76 - 87% **B** 64 -75% **C** 50 - 63% **D** 0 - 49% **F**

Students involved in cheating on tests, will receive “**0**” for the test.

Students should show work in their tests to get the whole credit.

Do you need Math help?

Without any hesitation, ask your questions, get help from the tutoring program of the school, and go to “Dynamic Student Edition” and use the engaging tutorials and online lesson tutorials; also use any LAUSD resources for students.

Class Materials:

Please, bring the following items to class daily

- Spiral Notebook
- Book
- Student Journal
- Pencils and Pens
- Scientific or graphic calculator

Assignments:

Daily assignments will be given to the students to introduce, reinforce and review class materials. Assignments will better prepare the students for quizzes, chapter tests, and final cumulative exam.

Assignments are due next day at the beginning of the period unless otherwise stated.

Absent students are responsible to make up their missing works to get the credit.

A notebook of assignments, class notes, warm ups and Journal will be kept. It will be graded every test day, and at the end of each semester where they earn 100% as a test grade.

Never forget that good organizational skills will be a long asset.

Attendance and make-up policy:

Attendance is extremely important. Class is the place where explanation and learning takes place. **Become responsible citizen and follow school's attendance policy.** The student is responsible for the missed tests. They have to arrange a makeup day with the teacher if it was excused absence otherwise, it will be an F. If you have to miss the class on the test or quiz day for games, you have to inform the teacher to set time to take it preferably on the same day before you leave for the game.

Citizenship and Standards of Conduct.

Student's behavior guarantees academic achievement. It is very important to listen quietly, and follow directions the first time they are given. Students have to follow safety rules.

- Be on time, prepared with necessary materials, ready to learn and cooperate.
- If you have something to say, raise your hand and wait until you are given permission to speak.
- No food, or gum, or drink (Except water) in the classroom.
- Be respectful to your classmates and teacher.
- Keep your hands/feet to yourself.
- NO cursing
- NO making fun of each other.
- NO electronic devices (It will be confiscated).
- NO cell phones to be seen or heard (It will be confiscated), not even as calculators.
- NO sharpies.
- No electronic devices other than actual calculators to be used as calculators. Calculators will be provided if you don't have one.

Standard consequences for poor conduct:

1st time, verbal warning.

2nd time discussion with teacher that day, possible contact to parents, (Definite parent contact if student does not discuss event with teacher that day).

3rd time, student sent to the office with discipline referral (Citizenship grade affected) “U” will be given as a citizenship grade, if you have two referrals.

Students are not allowed to leave the classroom, except for a real emergency.

Class Procedures:

1. Be in your seat when the bell rings.
2. Do the warm-up/POD.
3. Pay careful attention to the explanation to expend your knowledge and elevate yourself, your group members and your surroundings.
4. Participate, complete activities and class works.

I am looking forward to working with you to make this year a wonderful learning experience. In order to make this positive learning environment, we must work together to create a good learning atmosphere.

I have read and fully understand all parts of the class guidelines for Mrs. Azniv Shahmelikian's class. I agree to abide by the requirements that are expected of me.

Print Student name: _____ Period: _____

Student's signature: _____ Date: _____

Parent's or guardian's name: _____

Parent's or guardian's signature: _____

Address: _____

Zip Code: _____

Work Phone : _____

Home Phone: _____

Parent's or guardian's e-mail address: _____

Concerns Teacher should be aware of:

Return by August 29, 2016