

Algebra 2 Syllabus 2017-18

Instructor: Shellee Harris

Email: sharris@oakarts.org

Blog: teachers.oakarts.org/~sharris

*The best way to Learn Mathematics
Is to Do Mathematics.*

COURSE DESCRIPTION

Algebra 2 prepares students to take Pre-Calculus. The two major goals of this course are to solidify student's algebraic skills and to extend their algebraic understanding. Topics include linear functions, systems of equations, polynomial functions, rational expressions, exponents, radicals, quadratics, exponential and logarithmic functions and inverses. The course focuses on mastery of critical skills and exposure to new skills necessary for success in subsequent math courses. Throughout the course, Common Core standards are taught and reinforced as the student learns how to apply the concepts successfully.

During the year students will work collaboratively with others as they use problem-solving strategies, complete investigations, perform critical analysis, and justify their thinking effectively. The course is balanced between procedural fluency (algorithms and basic skills), deep conceptual understanding, strategic competence (problem solving), and adaptive reasoning (application and extension).

COMMON CORE STATE STANDARDS - MATHEMATICAL PRACTICES

- 1) Make sense of problems and persevere in solving them.
- 2) Reason abstractly and quantitatively.
- 3) Construct viable arguments and critique the reasoning of others.
- 4) Model with mathematics.
- 5) Use appropriate tools strategically.
- 6) Attend to precision.
- 7) Look for and make use of structure.
- 8) Look for and express regularity in repeated reasoning.

COURSE LEARNING OBJECTIVES

- 1) Demonstrate the ability to interpret and graph various functions and their inverses.
- 2) Continue building knowledge of different function types.
- 3) Be able to use variables and functions to represent relationships.
- 4) Be able to model and solve real world problems.
- 5) Be able to re-write expressions and equations into simpler forms using algebraic manipulation.
- 6) Understand the connection and relationship between the equation, the graph, and the solutions for any particular problem.
- 7) Understand the basics of trigonometry and trigonometric functions.

MATERIALS

- Algebra 2 CPM Textbook
- **REQUIRED** materials
 - ✓ Graph Paper Notebook
 - ✓ 3-Ring Binder – there WILL be handouts, you WILL need them.
 - ✓ Pencils – lead, eraser, sharpener, etc.
 - ✓ Calculator **TI-84** or higher
 - ✓ 4-5 colored pens/pencils
 - ✓ Ruler – 6 inch is easiest to carry (optional but really useful)

Classroom Wish List - Glue sticks, 12 in rulers, 11x14 poster paper, tissues, black or blue dry erase markers, regular markers.

Thank you!

OSA Math Department: TI-84 Graphing Calculators

GRADING PERCENTAGES

A 93 - 100%	B+ 87 – 89%	C+ 77 – 79%	D+ 67 – 69%	F < 60%
A- 90 - 92%	B 83 – 86%	C 73 – 76%	D 63 – 66%	
	B- 80 – 82%	C- 70 – 72%	D- 60 – 62%	

GRADING CATEGORIES

Mastery	Pre-Assessments(Minis)	5%
- Individual Assessment 65%	College & Career Readiness	5%
- <u>Projects, Presentations, etc.</u> 15%	Homework/Classwork	10%
Total Mastery 80%		

CLASSWORK/HOMEWORK

It is expected that homework will be completed to the best of a student's ability and in a timely manner. There are many resources that are available for help if needed.

STUDENT EXPECTATIONS

- **Student Handbook:** All policies in the student handbook will be in effect.
- **Attendance:** Students are expected to be present and on-time. Attendance is a critical component to success in this course. If you must be absent **YOU** are responsible to obtain the information you missed.
- **Participation:** Class participation is another key component. Be present in the classroom. Working with your team, working on the assigned problems, paying attention to lectures or presentations, etc.
- **Electronic Devices:** Earphones are **NEVER** allowed in the classroom. Students may only use electronic devices when authorized by Ms. Harris.

REALLY IMPORTANT! I am here teaching because I WANT you to succeed. If you are having trouble or feeling overwhelmed by this class, come and see me. DON'T wait until the last minute to discuss your concerns or get help.

Please detach and return this page to Ms. Harris.

For Students

I have read and understand the expectations for this class.

Student Name: _____ Period: _____
(Printed)

Student Signature: _____

For Parents/Guardians

I understand the expectations of my student. I have read the syllabus for this course.

Parent/Guardian Name: _____
(Printed)

Parent/Guardian Signature: _____

I use the phone and email information that is collected by OSA to contact parents/guardians. If you wish to add to that information, you may do so, but this is optional.

Alternative Phone: _____

Alternative Email: _____

Comments (anything you would like me to know or be aware of)

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