

Algebra 2 Course Information, SEHS 2016-17		Interactive Help & Resources: Synergy Student & Parent Portals <i>Class Website/Assignment Calendar:</i> http://tinyurl.com/sehs-alg2-a
Teacher: Peter Wiebe wiebe_p@4j.lane.edu	Room 720A Office Hours/Instructional Access: • 3:15 – 4:00 Wed, or by appointment • 8:00 – 8:25 Tues & Thurs.	
Textbook: CPM Core Connections Algebra 2, vol 1		eBook: http://ebooks.cpm.org • PIN: GH7SQ • Create an account or use yours from last year

Algebra 2 is a two trimester course which covers equations, graphs and situations involving a variety of functions including linear, quadratic, exponential, rational, radical, inverse, logarithmic and trigonometric functions. We will look at arithmetic and geometric sequences and work with statistics. The course aligns with the Common Core Standards and has a problem solving focus to promote a deeper understanding of the mathematics. Students will have an opportunity to collaborate on investigations and are encouraged to share ideas and learn from each other.

Materials: Students will need pencils, erasers, graph paper, a scientific calculator, and a designated math spiral or composition book for classwork & homework. A graphing calculator is strongly recommended, but not required, for this course. (We use TI-83 or TI-84 in class. We will also be using Desmos.)

Classwork and Homework: Each day starts with a warm up designed to review skills, reinforce current topics, prepare for new topics, review for that night's homework or an upcoming quiz or test. If a student misses class, they absolutely should get online and do the missed warm up! Questions on the previous night's homework are usually taken next. Students can expect full credit on homework if they have given the homework their best effort before they come to class. Every problem must be attempted! If we don't have a chance to go over it in class, worked out solutions will be posted to the website as per student request. Classwork is either an investigation or concept practice done in teams, pairs or individually. All classwork for the week is turned in on Fridays with the week's warm ups.

Late work: Late homework or classwork is not penalized if it follows an excused absence and is turned in as soon as possible upon your return. Very late work (more than a day) or work missed due to other reasons will likely not be accepted, or may be accepted for reduced credit. Come talk to me about the circumstance.

Attendance and Make Up Work: Prompt and regular attendance is expected. The school policy about reduced course credit will be followed. Many of the group activities are too difficult to duplicate on your own. Students are expected to find out what they missed and take care of it quickly. Warm ups, lessons and homework are posted to the website daily. Missed assessment opportunities must be dealt with immediately upon return and are the responsibility of the student to set a make up appointment. Once an assessment has been returned to the class, the opportunity for make up is lost. For a known planned absence, students should arrange to test before they leave.

Assessments: There will be a variety of assessments given. Most will be individual, some in pairs and some will require group collaboration. There will be a short individual skill quiz given once a week over 2 to 3 specific skills students should have mastered. Practice is given ahead of time on homework and warm ups. There will be a test at the end of each chapter, with some questions from previous chapters included. The final exam is cumulative.

Grading: Classwork and homework will make up roughly 25% of the overall grade, leaving 75% of the grade based on assessments. Grades will be updated on Synergy every couple weeks at the end of each chapter, more frequently when possible. Scale: A: 90 – 100%, B: 80 – 89%, C: 70 – 79%, D: 60 – 69%, F: Below 60%.

Help and Accommodations: See posted hours above. Also, I am usually available for help after school. Give me a heads up in case I have a meeting and can't be there. Appropriate modifications will be made for identified special needs. Come talk to me if you have concerns!

Successful Learning Behaviors

Team Norms

Success for the individual is inseparable from success for the team. Teaching & learning are mutually supportive activities; we all learn best when we teach one another.

- Keep all conversation within your team; keep any phone use for math only.
- Explain and justify your ideas; give statements and reasons.
- Helping your teammate does not mean giving answers. Help by giving hints and asking good questions.
- No one alone is as smart as all of us together. Do not leave anyone behind or let anyone work ahead. Your team is not done until everyone is done.

Whole-Class Discussion Norms

Success for the individual is interdependent with success for all. Teaching & learning are mutually supportive activities; we all learn best when we listen to one another.

- Raise your hand to pose questions & comments.
- Refer to your work & your other resources when composing questions & comments.
- When another person is addressing the class, refrain from side-talk, even on-topic talk.
- Offer to share your written work to support your verbal contributions.

Formal Assessment Norms

For an exam (daily quiz, or longer, comprehensive test), use the opportunity to demonstrate proficiency & fluency, & afford all others the same opportunity.

- Adhere to school policy on academic integrity.
- No sharing; use your own calculator, your own *INB*, pencil, etc. ***Keep phones off & away.***
- Maintain a quiet environment. Refrain from talking, & pencil-sharpening during the quiz.
- After turning in quiz, read silently, preview upcoming lesson, or review previous work; unless instructed otherwise, keep all other personal electronics off & away during quiz.

Algebra 2 Learning Targets

Target	"I can" Statement of Objective & CCSS Code
Alg201	I can interpret parts of, & use those parts to rewrite, an expression. A-SSE.a
Alg202	I can factor, complete the square, & use properties of exponents, to rewrite quadratic functions. A-SSE.b
Alg203	I can add, subtract & multiply polynomials. A-APR.a
Alg204	I can find zeros of polynomials. A-APR.b
Alg205	I can rewrite polynomials using long division. A-APR.c
Alg206	I can show & explain methods for solving equations & construct arguments defending the solutions, the number of solutions & the types of solutions, including extraneous ones. A-RE.IA
Alg207	I can solve linear & quadratic equations in one variable graphically & algebraically, including by completing the square. A-RE.IB and D
Alg208	I can represent & solve linear inequalities graphically & algebraically. A-RE.I
Alg209	I can graph functions to show intercepts, maxima & minima. F-IF.C
Alg210	I can demonstrate understanding of radian measure in the unit circle & determine the exact values of cosine, sine, & tangent for angles of multiples of $\pi/2$, $\pi/3$, $\pi/4$, and $\pi/6$. F-TF.a
Alg211	I can choose trigonometric functions to model situations with given amplitude, frequency & midline. F-TF.b
Alg212	I can create & use linear, exponential, quadratic & rational equations to solve problems; & use graphs, represent constraints & rearrange formulas. A-CED
Alg213	I can interpret, describe & sketch key features of graphs & tables (including domain) for linear, exponential & quadratic functions that model relationships between two quantities, including for given verbal descriptions of relationships. F-IF
Alg214	I can write an explicit expression & a recursive process to model a given context.
Alg215	I can write a function that describes a relationship between two quantities & identify the effect of transformations on the graph; & identify algebraic transformations shown on given graphs. F-BF.1a
Alg216	I can distinguish between situations that can be modeled with linear & exponential functions. F-LE
Alg217	I can find & interpret measures of central tendency & spread, including standard deviation. S-ID.A
Mth01	I can consistently & thoroughly complete & check assigned Review & Preview exercises.
Mth02	I can consistently & thoroughly make & maintain a neat & organized Interactive Notebook.
MP.1	I can make sense of problems and persevere in solving them. CCSS MP.1
MP.2	I can reason abstractly and quantitatively. CCSS MP.2
MP.3	I can construct viable arguments and critique the reasoning of others. CCSS MP.3
MP.4	I can model with mathematics. CCSS MP.4
MP.5	I can use appropriate tools strategically. CCSS MP.5
MP.6	I can attend to precision. CCSS MP.6
MP.7	I can look for and make use of structure. CCSS MP.7
MP.8	I can look for and express regularity in repeated reasoning. CCSS MP.8