Crook County High School: Algebra 2

Course Length: Year Long

Instructor's Names for 2019-2020: Kersey Booster, Amanda Groves, Christine Kasberger, and Jacob Williams

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Course Description: This course is an overview of Advanced Algebraic concepts. Algebra 2 is the stepping stone to college-level mathematics. The emphasis is on thinking, reasoning, and problem solving. This class covers linear, quadratic, logarithmic, exponential, rational, and radical functions. Students are expected to graph, solve, translate, and simplify each of the functions. The standards used to assess students in this course are from the Oregon State adopted Common Core State Standards

Goals (SMART-specific, measurable, achievable, relevant, timeline-a reflection of specific critical content mastery): By the end of each semester 100% of students will meet or exceed Algebra 2 standards (60% or higher).

Expectations:

- Please be to class on time.
- Once you enter the room, please sit down and complete the daily opener.
- No cell phone use.
- Be Respectful, Reasonable, Responsible, and Safe at all times.
- Keep an organized notebook.
- Persevere

Supplies:

- Spiral Notebook – lined paper or graph
- Pencils and eraser
- Clear Tape
- Highlighter
- Expo Markers
- TI-83 or TI 84 Graphing Calculator Highly Recommended (look for online sales through Target or Walmart or we offer a rental program for $25.00 for the year. See your teacher the first week of school)

Grading Policy:

Your grade for the class will be calculated from the following categories:

70% Summative Assessments
10% Homework, classwork, and projects
20% Final Exam

Corresponding Letter Grade	Proficiency Scale	Percentage Scale
A	Exceptional Mastery	90 - 100
B	Mastery	80 - 89
C	Proficient	70 - 79
D	Minimal Proficiency	60 - 69
F	Does Not Meet	Below 60

- Students must earn a minimum grade of a D to move on to the next mathematics class.
- Extra credit opportunities may be offered during the year, but not on a regular basis
- Students can retake assessments for full credit provided they have met the prerequisite work for retakes – completed before next unit, error analysis, no missing assignments OR proficiency has been demonstrated, and at least 10 minutes of office time with teacher.

Materials: Agile Mind Online Textbook : crookcounty.agilemind.com

** each student will have their own username and password. This process will occur within the first 2 weeks of school.

Notification of the Right to Object to the Use of Materials:

Any resident of the district may raise objection to instructional materials used in the district's educational program despite the fact that the individuals selecting such materials were duly qualified to make the selection and followed the proper procedure and observed the criteria for selecting such material. The first step in expressing objection is consultation with the classroom teacher or library staff and providing a brief written complaint. The staff member receiving a complaint regarding instructional materials shall try to resolve the issue informally through the discussion of the original assignment or the opportunity for an alternative assignment.

If not satisfied with the initial explanation or an alternative assignment, the person raising the questions will meet with a building administrator who, if unable to resolve the complaint, will provide a Request for Reconsideration form which will be given to the superintendent for action.

Standards

Critical Areas	**Standard Clusters** (Clusters are the overriding Standard)	**Mathematical Practice Standards** (imbedded all year in each unit)
Critical Area 1 Polynomial, Rational, and Radical Relationships	*****Interpret the structure of expressions *****Write expressions in equivalent forms to solve problems *****Perform arithmetic operations *****Understand solving equations as a process of reasoning and explain the reasoning. *****Represent and solve equations and inequalities graphically -Perform arithmetic operations with complex numbers -Use complex numbers in polynomial identities and equations -Understand the relationship between zeros and factors of polynomials -Use polynomial identities to solve problems -Rewrite rational expressions -Analyze functions using different representations	* Make sense of problems and persevere in solving them * Reason abstractly and quantitatively * Construct viable arguments and critique the reasoning of others * Model with mathematics
Critical Area 2 Trigonometric Functions	+Extend the domain of trigonometric functions using the unit circle	

	+Model periodic phenomena with trigonometric function +Prove and apply trigonometric identities	* Use appropriate tools strategically * Attend to precision * Look for and make use of structure * Look for and express regularity in repeated reasoning
Critical Area 3 Modeling with Functions	*Create equations that describe numbers or relationships *Interpret functions that arise in applications in terms of a context *Analyze functions using different representations +Build new functions from existing functions +Construct and compare linear, quadratic, and exponential models and solve problems	
Critical Area 4 Inferences and Conclusions from Data	*Summarize, represent, and interpret data on single count or measurement variable +Understand and evaluate random processes underlying statistical experiments +Make inferences and justify conclusions from sample surveys, experiments and observational studies. -Use probability to evaluate outcomes of decisions	