September 2015

Dear parents and Advanced Algebra students,

Welcome to the 2015-2016 school year! I am happy to be here and look forward to the months ahead. This syllabus outlines my teaching philosophy, provides a course overview, describes my behavioral expectations, and includes tips for classroom success.

I believe that students are much more able to understand, remember, and apply math concepts when information has been presented in an interesting, engaging, and meaningful manner. My lessons emphasize the relevance of what we are learning and how we will be applying that information. I foster a positive learning environment where questions are encouraged. To help students of all different strengths and abilities do their best, I utilize a variety of teaching styles, encourage a high level of student involvement, and incorporate pair-share work.

The skills young adults develop in math class will not only help them academically, but will also help them foster improved critical thinking skills and problem-solving abilities in general. Strong performance in math is also a plus when applying to colleges. Although participating in math requires a lot of work, the rewards are tremendous!

Please read through the attached syllabus and return only the parent/student agreement page by this Monday, September 7. Students will be given points for returning their signed papers on time. Feel free to contact me at <u>ternerk@wlwv.k12.or.us</u> with any questions, comments or concerns as well as information on how you can be reached. I will respond promptly.

Sincerely,

Kathleen H. Terner

Kathleen H. Terner, B.S., M.B.A.

West Linn High School

Advanced Algebra Class Syllabus

Kathleen H Terner, B.S., M.B.A.

<u>Course Description</u>: In this course, students will build on their work with linear, quadratic and exponential functions. Students will also extend their understanding of functions to include polynomial, rational and radical functions. Technology will be utilized throughout the course to facilitate learning.

Major Units:

Chapter 1	Equations and Inequalities	Chapter 7	Exponential and Logarithmic
Chapter 2	Linear Equations and Functions		Functions
Chapter 3	Linear Systems and Matrices	Chapter 8	Rational Functions
Chapter 4	Quadratic Functions and Factoring	Chapter 10	Counting Methods and Probability
Chapter 5	Polynomials and Polynomial	Chapter 12	Sequences and Series
	Functions	Chapter 13	Trigonometric Rations
Chapter 6	Rational Exponents and Radical		and Functions
	Functions		

Learning Goals and objectives: Upon completion of this course, students will be able to

Interpret the structure of expressions

Write expressions in equivalent forms to solve problems

Perform arithmetic operations on polynomials

Understand the relationship between zeros and factors of polynomials

Create equations that describe numbers or relationships

Solve equations and inequalities in one variable

Solve systems of equations

Represent and solve equations and inequalities graphically

Understand the concept of a function and use functions notation

Extend the properties of exponents to rational exponents

Classify numbers as rational or irrational

Understand and apply the fundamental counting principal, combinations, permutations and probability Interpret linear models

Calculate expected values and use them to solve problems

Use probability to evaluate outcomes of decisions

Understand that polynomials form a system closed under the operations of addition, subtraction and multiplication

Rewrite simple rational expressions in various forms using inspection, synthetic division or long division

Apply rules of exponents and logarithms to convert expressions or solve equations

Utilize special right triangle relationships as well as trigonometric ratios to solve triangles

Convert between degree measure and radian measure and find arc length and area of sectors

Standards of Mathematical Practice:

The student will: 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. Use appropriate tools strategically. Attend to precision. Look for and make sense of structure. Look for and express regularity in repeated reasoning. *All math courses are designed to meet th e requirements of the WLWV Mathematics Curriculum and the Common Core State Standards*.

Grading Policy: Grades will be assigned as follows:

Grading Cutoffs:		Grading Breakdown:	Grading Breakdown:	
A:	[100, 90]	Tests	45%	
B:	(90, 80]	Quizzes	20%	
C:	(80, 70]	Final Exam	20%	
D:	(70, 60]	Homework	15%	
F:	(60, 0]			

Tests/Quizzes: Students are given tests/quizzes on each chapter as well as one cumulative semester final each semester. *Graded student tests and quizzes are not to leave the classroom at anytime.*

Homework: Homework is assigned daily (even over the weekend) and is worth approximately 20% of a student's overall grade in Advanced Algebra. In order to receive full credit on homework assignments, students must complete homework on time, do all of the problems, and *show all of their work*.

<u>Punctuality and Attendance</u>: Students are expected to attend class each day and arrive on time. Every day a new topic is taught and built upon. It is <u>extremely</u> difficult to catch up if a class is missed. Please do not schedule dental/doctor/DMV appointments during math class, unless absolutely necessary. Any absence, either <u>excused or unexcused</u>, can cause a student undo hardship.

<u>Class Preparedness</u>: Students are required to come to class prepared to learn. In my class each student is required to have a pencil holder, pencils, a scientific graphing calculator (a Ti-83 or Ti-84), and a binder (or folders) with paper and tabs (or labels). These items need to be brought to class every day. <u>No</u> <u>exceptions</u>! I will be doing a materials check the second week of school and awarding points to those students who have all their necessary supplies.

Binder Requirements: Each student must maintain a binder (or folders) filled with the following items:

- 1. Pencil holder with pencils
- 2. Lined paper and graph paper
- 3. Tabs (or labels) for "Crib Sheets," "Homework," "Notes," and "Reviews"
- 4. Current copy of pacing guide and assignment sheet

Behavior Policy: In order to ensure a productive learning environment, the following key rules will be strictly enforced

- 1. <u>Be on time</u>. Students who are late more than three times will be asked to develop a plan for being on time and a phone call home may be made. If necessary, a follow-up meeting will be held with administration.
- 2. <u>During lesson or problem review, place your full emphasis on the math lesson</u>. Take notes, evaluate the problems, give your input, and ask questions. Students who engage in off-task activity during this time (including getting out of seat, throwing items, or talking out of turn) may be asked to move seats, receive a phone call home, or attend a meeting with me or administration. *Cell phones should not be visible at any time during the lesson. Cell phones that are not put away will be confiscated until the end of class.*
- 3. <u>Be respectful of others with both your actions and your words</u>. Raise your hand when you have a question or comment. When you have a need that must be addressed during the middle of a lesson, use non-verbal cues as much as possible such as handing me your bathroom pass. Students who are disrespectful towards others in class will be asked to leave class and will attend follow-up meetings with me, their parents, and administration.

Monthly Awards: Students who arrive on time prepared to learn, give their full attention to the math lesson, treat their classmates with respect, and give their best effort in class will be eligible for three monthly awards. I will select a "Mathematician of the Month," a "Rising Star" and a "Leader of the Pack from each of my classes. Each of these students will receive a positive call home and their artwork and picture will be featured on my awards board.

Extra Credit: Students who complete 100% of their homework in my class become part of my 100 Club. Every time I give a quiz or a test, each of my 100 Club members will receive extra credit. In order to qualify for this extra credit, students need to have all of their assignments for the current chapter turned in as of the day *before* the test is given.

PARENT AND STUDENT AGREEMENT

Please sign and return only this page by Monday, September 7.

Students will be given points for returning this form on time.

Please write legibly and keep the rest of this packet as a reference.

Parents/Guardian Name:	
Home Phone:	Work Phone
Email address (if you have one):	
STUDENT AGREEMENT:	
I,	, have read and
understand the behavior policy, grading po	licy and overall Advanced Algebra syllabus. I
understand to be successful in this class I m	nust complete all homework, study for all tests and
regularly dedicate time outside of school to	the study of Advanced Algebra. In addition, I
understand that I must attend class daily, pr	repared to learn with the proper materials.

PARENT/GUARDIAN AGREEMENT:

We/I,	_, have read and
understand the behavior policy, grading policy and overall Advanced Algeb	ora syllabus. I
understand that if my child is to be successful in this class he/she must com	plete all homework,
study for all tests and regularly dedicate time outside of school to the study	of Advanced
Algebra. In addition, we/I understand that my child must attend class daily	, prepared to learn
with the proper materials.	