Burke High School

Course Title: Honors Algebra 1-2
Room Number: 227
Instructor’s Name: Ms. Courtney Williams

Telephone Number: 402-557-3200
E-mail: Courtney.Williams@ops.org
Plan Periods: Block 2 and 5
Best way to contact: email or call during plan

Course Description: This course covers the topics of a traditional first-year algebra course. Content includes solving equations and inequalities as well as working with functions, exponents, polynomials, quadratics, data analysis and rational expressions and equations. Appropriate technology will be used to assist in instruction and learning.

Instructional Philosophy: I want to help all of my students become more mathematically proficient. This course will prepare all students for higher-level math, develop number sense, and practice problem-solving strategies. It is an exciting course with in-depth real-world understandings.

Content and Inquiry Standards: Students will communicate number sense concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines. Students will:

Number System:
* Compare, contrast and apply the properties of numbers and the real number system, including rational and irrational numbers MA 12.1.1.b

Operations:
* Use drawings, words, and symbols to explain the effects of such operations as multiplication and division, and computing positive powers and roots on the magnitude of quantities (e.g., if you take the square root of a number, will the result always be smaller than the original number? (e.g., ) MA 12.1.2.a
* Use drawings, words, and symbols to explain that the distance between two numbers on the number line is the absolute value of their difference MA 12.1.2.b

Computation: * Compute accurately with real numbers MA 12.1.3.a
* Simplify exponential expressions () MA 12.1.3.b
* Multiply and divide numbers using scientific notation MA 12.1.3.c
* Select, apply, and explain the method of computation when problem solving using real numbers (e.g., models, mental computation, paper-pencil, or technology) MA 12.1.3.d

Estimation:
* Use estimation methods to check the reasonableness of real number computations and decide if the problem calls for an approximation or an exact number (e.g., 10 π (pi) is approximately 31.4, square and cube roots) MA 12.1.4.a
* Distinguish relevant from irrelevant information, identify missing information and either find what is needed or make appropriate estimates MA 12.1.4.b

2. Students will communicate geometric concepts and measurement concepts using multiple representations to reason, solve problems, and make connections within mathematics and across disciplines. Students will:

Coordinate Geometry:
* Use coordinate geometry to analyze geometric situations (e.g., parallel lines, perpendicular lines) MA 12.2.2.a

Measurement:
* Apply appropriate units and scales to solve problems involving measurement MA 12.2.5.b
* Convert equivalent rates (e.g., feet/second to miles/hour) MA 12.2.5.d
* Know that the effect of a scale factor k on length is to multiply each by k MA12.2.5.g

*For Critical Content & Skills – See Unit Planner
Major Units of Study
Semester 1
- Unit 1: Foundations of Algebra
- Unit 2: Equations
- Unit 3: Inequalities
- Unit 4: Introduction to Functions
- Unit 5: Linear Functions
- Unit 6: Systems of Equations

Semester 2
- Unit 7: Exponents
- Unit 8: Polynomials
- Unit 9: Quadratics
- Unit 10: Data Analysis
- Unit 11: Rational Expressions and Equations

Course Expectations
• Complete coursework, both in and out of class, in a timely fashion.
• Participate during in-class discussion and cooperative learning opportunities.
• Complete formal lab write-ups.
• Create technology based projects and presentations.

Class Rules and Expectations

Be Safe, Be Respectful, Be Responsible
• Rules and guidelines set forth in the student handbook will be followed in this class.
• Come prepared to learn every day with necessary materials: notes, pencil, scientific calculator, and three-ring binder.
• Be respectful of classroom materials, such as, calculators, pencils, whiteboards, etc.
• Attendance: Being in class, on time, is important for student success. Anyone entering the classroom after the bell has stopped ringing is tardy. Per school policy.
• Absences: Students are responsible for making up any coursework and notes given during absence. Work to be missed during planned absences needs to be completed prior to absence. This means checking the website, asking a friend, or checking the classroom calendar BEFORE asking the teacher what was missed. If a student is present for the majority of a unit then absent for a review day, the student is still expected to take the test on or before the assigned day, unless otherwise arranged with the teacher. This policy applies to excused and unexcused absences. I will post all notes and assignments on my website for students to access or students can come see me before or after school for any missed work.
• Electronic Devices: I know students will have and use cellphones in my classroom. Inappropriately using a cellphone with social media or texting takes away from their ability to pay attention and participate, and ultimately will limit their ability to be successful. I will give one warning to a student who is being distracted by their cellphone in my class. If the distraction continues, I will ask the student to store the phone in their backpack or my desk until the end of class. If a cell phone is too much of a distraction, I will send the student and cell phone to their administrator and contact a parent or guardian.

Texts
• Pearson, Algebra 1. I will have textbooks for use in the classroom, but will only send home guided notes and worksheets. If a student would like to check out a book to use at home, I would be happy to provide one.

Assessment
• Course grades will be determined by planned assessments such as tests, quizzes, and projects scored with rubrics.
• Major tests and/or writing projects are to be expected at the end of each major unit outlined above.
• State Testing: To address state requirements, all 11th grade students will complete a required test – to be determined.
• District Testing: The NWEA/MAP test will be administered as a predictive test. The NWEA/MAP test will be administered in high school only to 9th grade students.

OPS Secondary Grading Practices*

Revised 8/15/2018
All coursework and assessments are judged based on the level of student learning from “below basic” to “advanced.” This course will provide multiple opportunities to achieve at the “proficient” to “advanced” levels. Students are evaluated based on a proficiency scale or project rubric. Proficiency scales for this course are available upon request (teacher will identify location such as portal, teacher website, attached, etc.)

**Weighting Assignments (Using A Multiplier)**

When entering grades in the grade book, teachers may assign greater weight to some assignments than others. For example, the final exam may impact a student’s summative grade more than a unit test. Teachers will have the option to use the multiplier to weigh both formative and summative assessments to a maximum of 4. If a weight of 2 or more is applied to an assessment, this information will be communicated to students at the time the assessment is announced.

There are three types of coursework*

- **Practice** – assignments are brief and done at the beginning of learning to gain initial content (e.g., student responses on white boards, a valid sampling of math problems, keyboarding exercises, and diagramming sentences, checking and recording resting heart rate). Practice assignments are not generally graded for accuracy (descriptive feedback will be provided in class) and are not a part of the grade. Teachers may keep track of practice work to check for completion and students could also track their practice work. Practice work is at the student’s instructional level and may only include Basic (2) level questions.

- **Formative (35% of the final grade)** – assessments/assignments occur during learning to inform and improve instruction. They are minor assignments (e.g., a three paragraph essay, written responses to guiding questions over an assigned reading, completion of a comparison contrast matrix). Formative assignments are graded for accuracy and descriptive feedback is provided. Formative work may be at the student’s instructional level or at the level of the content standard. Formative assessments/assignments will have all levels of learning – Basic (2), Proficient (3), and Advanced (4), which means that for every formative assessment/assignment, students will be able to earn an Advanced (4). Teachers will require students to redo work that is not of high quality to ensure rigor and high expectations. The students’ score on a formative assessment that was redone will be their final score. It is recommended to have three to five formative assessments for every one summative assessment.

- **Summative (65% of the final grade)** – assessments/assignments are major end of learning unit tests or projects used to determine mastery of content or skill (e.g., a research paper, an oral report with a power point, major unit test, and science fair project). Summative assignments are graded for accuracy. Summative assignments assess the student’s progress on grade level standards and may not be written at the student’s instructional level. Summative assessments/assignments will have all levels of learning – Basic (2), Proficient (3), and Advanced (4), which means that for every formative assessment/assignment students will be able to earn an advanced (4).

To maintain alignment of coursework to content standards, which is a key best practice for standards-based grading, teachers will utilize a standardized naming convention for each of the standards within a course. The content standard will be marked on each assignment entered into Infinite Campus (District Grading Program) using all capital letters followed by a colon. After the colon will be the title of the coursework.

At the end of the grading period, scores are converted to a letter grade using this grading scale.

- A = 3.26 – 4.00
- B = 2.51 – 3.25
- C = 1.76 – 2.50
- D = 1.01 - 1.75
- F = 0.00 – 1.00
Redoing/Revising Student Coursework
1. Students are responsible for completing all coursework and assessments as assigned.
2. Students are may be allowed redos and revisions of coursework for full credit during that unit of study based upon the teacher’s professional judgment and evidence collected throughout the unit. Scores for student work after retaking, revising or redoing will not be averaged with the first attempt at coursework or assessment but will replace the original student score.
3. Students are expected to complete assessments when given to the class, or if a student was justifiably absent, at a time designated by the teacher.
4. Redoing, retaking or revising will be done at teacher discretion in consultation with the student and parent(s). Teachers may schedule students before, during, or after school to address needed areas of improvement if not convenient during class. The time and location for redoing, retaking or revising will be done at the teacher’s discretion in consultation with the student and parent(s).

Late Coursework
Students are expected to complete coursework on time. Late coursework may be accepted for full credit until the end of the unit based on the teacher’s professional judgment and evidence collected throughout the unit. Accepted late work will not result in a reduction in grade and the M (Missing) will be replaced with the score earned by the student. The teacher or school may make exceptions depending upon student circumstances (such as prolonged absences due to illness).

Missing Coursework
Work not turned in at all will be recorded in Infinite Campus (district grade book) as an M for missing, which calculates to a score of zero.

Independent Practice
The role of independent practice is to develop knowledge and skills effectively and efficiently during the unit of study. Independent practice helps guide the learning process by providing accurate, timely and helpful feedback to students without penalty.