Course Syllabus

Franklin High School	2020-2021
Course Overview	
NOTE: For core classes, all elements of this section (except for name and contact information) are the same.	
Course Title: Intensive Algebra 1/2	
Instructor Name: Kelly AndrewsDenney	Contact Info: kandrews@pps.net
Grade Level(s): 9	
Credit Type: elective	# of credits per semester: 1
Prerequisites (if applicable):	
General Course Description: This course works in conjunction with freshman Algebra 1-2. It is intended to give students a deeper understanding of the foundational mathematical concepts required in Algebra 1-2, as well as Geometry and Algebra 3-4, which are the other math classes required for graduation. A stronger focus on application of algebraic tools and problem-solving will benefit students in math and science classes. *From the Algebra 1-2 Syllabus: The course is structured around problems and investigations that build the conceptual understanding of algebraic topics and an awareness of connections. There are strong threads woven throughout the course on multiple representations and the meaning of a solution. Students will be asked to justify their thinking, generalize relationships, make connections between ideas and reverse thinking to solve problems. A major focus of Algebra 1-2 is to develop multiple strategies to solve problems and to recognize multiple ways of understanding concepts.*	
Prioritized National/State Standards: Unit 1 Number Sense: Arithmetic with fractions, negatives, and a deeper sense of how numbers interact with each other will be the focus. Unit 2 Variables and How to Use Them: Understanding what a variable is, and how it can be used to create expressions and equations. *Covered in Algebra 1-2:* *HSA-REI.B.3. Solve linear equations in one variable, including equations with coefficients represented by letters.* *HSA-CED.A. Create equations that describe numbers or relationships.* *HSA-CED.A.2. Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.* *HSF-BF.A.1. Write a function that describes a relationship between two quantities.* *HSA-CED.A.2. Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.* *HSS-ID.B.6c. Fit a linear function for scatter plots that suggest a linear association.* *HSS-ID.C.7. Interpret the slope (rate of change) and the intercept (constant term) of a linear fit in the context of the data.* *HSA-CED.A.2. Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.*	

HSA-CED.A.1. Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear functions
HSN-RN.A. Extend the properties of exponents
HSA-REI.B.4. Solve quadratic equations in one variable.
HSF-IF.C.7a. Graph quadratic functions and show intercepts, maxima, and minima.
HSA-SSE.B.3a. Factor a quadratic expression to reveal the zeros of the function it defines.

Course Details

Learning Expectations

Materials/Texts
Students would benefit from keeping a notebook with their warm-ups, notes, and work from class. A calculator is helpful; desmos online calculator is sufficient, though basic 4-function calculator may be more helpful on a regular basis.

Course Content and Schedule: Because this is a year-long class, there will be more flexibility in stretching some units where necessary to enhance students' learning. This is a basic outline, but is subject to change based on students' needs.
Quarter 1: Intensive Algebra 1
0. Soft start social-emotional learning
1. Number Sense
2. Variables, Expressions, and Equations
3. Solving and evaluating linear equations
Quarter 2: Algebra 1
4. Creating and representing linear functions: Slope-intercept form
5. Creating and representing linear functions: Standard and point-slope form
6. Statistics: Two-variable
Quarter 3: Intensive Algebra 2
To be determined. During second semester, this class will be co-taught by the students' physics teacher, Matt Stewart. The topics will depend on what will most benefit the students' experience and learning in Algebra and Physics.
Quarter 4: Algebra 2
7. Systems of equations
8. Inequalities
9. Creating and representing exponential functions
10. Creating and representing quadratic functions

Differentiation/accessibility strategies and supports (TAG, ELL, SpEd, other):
Leveled, standards-based assessments with clear benchmarks for C-, B- and A-level work. Flexible timeline for demonstrating proficiency. Multiple attempts to retake and/or revise assessments. Honors credit available for interested students. Clearly posted and chunked agenda, daily learning target(s) and content vocabulary. Investigative, problem-based curricular model to attend to CCSS Mathematical Practices of 'making sense of problems and persevere in solving them'; 'Reason abstractly'; and 'look for and make use of structure,' for example. Explicit instruction using guided notes and teacher-provided notes.

Safety issues and requirements (if applicable): N/A

Classroom norms and expectations:

Students and teacher are expected to be respectful of each other at all times. Students are also expected to work both independently and collaboratively in study teams. Students and teachers will refer to the Franklin High School Student Climate Guide.
Synchronous (live lessons) are vital to creating community in the classroom and the most important concepts will be taught during those times. Students are expected to attend live classes, or communicate with the teacher when unable to attend. Asynchronous assignments are intended to deepen and support the concepts taught during live class sessions. Students are expected to complete those assignments, and communicate with the teacher when they are unable to by the due date.

Evidence of Course Completion

Assessment of Progress and Achievement:
Grades should be based on the student's demonstration of understanding of the standards.

Standard Grading Scale:
90-100% - A
80-89% - B
70-79% - C
60-69% - D
59- below - F

Exit Tickets and Asynchronous assignments (formative assessment). Flexible timeline and student choice for demonstrating proficiency. If students are unable to demonstrate proficiency on first attempt, reflections, revisions, or retakes will be available (summative assessments). Students can use notes on tests.

Grades will be weighted as follows:
Tests (summative assessments): 90%
Quizzes/Asynchronous Assignments (formative assessments): 10%

Progress Reports/Report Cards (what a grade means):
Grades will be based on the student's demonstration of understanding of the standards.

Leveled, standards-based assessments with clear benchmarks for C (basic), B and A (advanced) level work.

Career Related Learning Experience (CRLEs) and Essential Skills:

Communication with Parent/Guardian

What methods are used to communicate curriculum, successes, concerns, etc.?

Teacher will use email, Remind App and texts to connect, share successes, curriculum and concerns. Formative work and practice will be posted in Canvas. Grades will be found in Synergy.

Personal Statement and other needed info
Distance learning has and will continue to be a challenge for all of us. The situations in which students live vary greatly, as will their opportunities for quiet, focused learning. This will require me, as the teacher, to bend and flex when necessary to meet the needs of my students. The most important thing students and parents can do is to keep communication open. I cannot adapt if I don't know what students need. While it may be difficult and uncomfortable for students, we will all benefit if students are willing to keep cameras on during class meetings. This is not a requirement, and I understand if students choose not to. However, the nonverbal cues I get when students are confused or lost are a huge part of my job, and that is lost when I don't see their faces. Additionally, having cameras on can help students connect with each other during this difficult time. Should anything change based on needs that arise during this semester, families will be notified.