

## **Course Syllabus**

#### Franklin High School 2020-2021

**DIRECTIONS**: For each course, complete the syllabus and share with your evaluating/supervising administrator as a pdf ("File-download-PDF document") by 9/28/20. Syllabi will be posted on the FHS website under your name for the public to view.

Course Overview	
NOTE: For core classes, all elements of this section (except for name and contact information) are	
the same.	
Course Title: Algebra 1/2	
Instructor Name: Trevor Butenhoff	Contact Info: tbutenho@pps.net
Grade Level(s): 9, 10	
Credit Type: (i.e. "science", "elective") mathematics	# of credits per semester: 1
Prerequisites (if applicable):	

General Course Description: 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:

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.



<u>HSA-CED.A.1.</u> Create equations and inequalities in one variable and use them to solve <u>problems. Include equations arising from linear functions</u>

**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

## Course Content and Schedule:

- 1. Soft start social-emotional learning
- 2. Solving and evaluating linear equations
- 3. Creating and representing linear functions: Slope-intercept form
- 4. Creating and representing linear functions: Standard and point-slope form
- 5. Statistics: Two-variable
- 6. Systems of equations
- 7. Inequalities
- 8. Creating and representing exponential functions
- 9. 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):

# 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.

## 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 Daily quiz (formative assessment). Flexible timeline for demonstrating proficiency. Multiple attempts to retake and/or revise tests (summative assessments). Students can use notes on tests. Grades will be weighted as follows: Tests (summative assessments): 99% Quizzes (formative assessments): 1% Progress Reports/Report Cards (what a grade means): Grades should 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. Personal Statement and other needed info