

BULLITT CENTRAL HIGH SCHOOL

Department: Mathematics

Course Title: Pre-Calculus

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Prerequisite: Algebra 1, Geometry, Algebra 2

Course Description:

This course is designed for students to attain the concepts necessary to be successful in a Calculus course, an AP Calculus course or a College Calculus course. Objectives for this course should include, but are not limited to: solve equations and inequalities involving polynomial, rational, exponential, logarithmic and trigonometric functions, understand and apply the behavior and properties of polynomial, rational, exponential, logarithmic, and trigonometric functions, graph polynomial, rational, exponential, logarithmic, and trigonometric functions, use technology to solve and graph various types of equations and inequalities and prove trigonometric identities. Standards for this course may also include the (+) standards denoted in the Kentucky academic standards document.

Course Goal:

The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students.

The eight Standards for Mathematical Practice are:

1. Make sense of problems and persevere in solving them
2. Reason abstractly and quantitatively
3. Construct viable arguments and critique the reasoning of others
4. Model with mathematics
5. Use appropriate tools strategically
6. Attend to precision
7. Look for and make use of structure
8. Look for and express regularity in repeated reasoning

Course Requirements:

In order for the student to be successful in this course, he/she must meet the following expectations:

1. The student will be an active listener and engaged learner during remote learning and in person learning. **RESPECT**
2. The student will complete all weekly assignments, homework, guided practice, written assignments, and open-response questions. **OWNERSHIP**
3. The student will participate in all cooperative learning activities. **ACCEPTANCE**

4. The student will complete all quizzes, tests, and the semester/final exam at the end of the course. **RESILIENCE**

*Materials Recommended for Class:
Chromebook, notebook, and writing utensil.*

Bullitt Central High School's VIRTUAL LEARNING EXPECTATIONS (R.O.A.R.)	
<u>R</u>ESPECT	<ul style="list-style-type: none"> ● Follow instructions ● Focus & minimize distractions (<i>find a quiet place, check your surroundings</i>) ● Listen to teachers & to your home support guardian ● Politely communicate (<i>Mute your microphone when others are speaking, use the raise your hand or chat feature, wait your turn to speak or contribute</i>)
<u>O</u>WNSHIP	<ul style="list-style-type: none"> ● Log in on time ● Be prepared, focused, and an active participant ● Organize your materials ● Try your best & do your own work ● Complete tasks on time/Stay on top of assignments ● Maintain your Chromebook (<i>Chromebook is charged, notify teacher of issues</i>)
<u>A</u>CEPTANCE	<ul style="list-style-type: none"> ● Work with and help each other ● Value others' perspectives ● Welcome teacher/peer feedback ● Be open to new experiences ● Resolve conflicts peacefully
<u>R</u>ESILIENCE	<ul style="list-style-type: none"> ● Establish a routine ● Be patient & adaptable ● Use YOUR resources to find a solution ● Advocate for yourself; if you need help, ASK ● Talk to someone if a bad day lasts longer than a day ● Practice self-care daily



Calculation of Grade

For each 9-weeks (term), daily work, weekly assignments, and group grades will determine 10% of each student's grade. Quiz scores will determine 40%, and the remaining 50% will be based on test scores.

The semester grade is based on each 9-weeks grade and the final exam (40%-40%-20%).

Assignments should be turned in for assessment within a reasonable time frame; any work more than 1 week late will not be graded. Unforeseen circumstances which inhibit the completion of work should be brought to the attention of the instructor.

Students may retake assessments in order to show improved understanding.

1	Functions	3 - 4 weeks
2	Polynomials	2 - 3 weeks
3	Rational Functions	2 - 3 weeks
4	Exponential and Logarithmic Functions	3 - 4 weeks
5	Right Triangle Trig & Law of Sines & Cosines	3 - 4 weeks
6	Unit Circle	3 - 5 weeks
7	Graphing Trigonometric Functions	3 - 4 weeks
8	Identities	3 - 5 weeks
9	Solving Trigonometric Equations	3 - 4 weeks
AT	Vectors & Matrices	
AT	Polar Coordinates	
AT	Conic Sections	
AT	Introduction to Calculus	
	AT=Advanced Topics	