

**Jefferson County High School
Course Syllabus**

A. Course: Bridge Math

B. Department: Mathematics

C. Course Description:

This course will cover a wide range of mathematical concepts related to previous learning. It is strategically designed to enhance a student's understanding of core concepts and better prepare them for the next level of mathematics. It is in alignment with the Developmental Studies Program for Mathematics, and is principally meant for students who score less than 19 on the mathematics portion of the PLAN test or ACT test. The use of technology, i.e., graphing calculators, and test-taking strategies will be emphasized

D. Grade Term: Semester

E. Grading Scale

<u>Range</u>	<u>Honors/ Regular</u>	<u>College-Level</u>	<u>A.P.</u>
93-100 A	4.0	4.5	5.0
85-92 B	3.0	3.5	4.0
75-84 C	2.0	2.5	3.0
70-74 D	1.0	1.5	2.0

F. Term Dates

- a. 1st 9 Weeks August 5, 2016 – October 7, 2016
- b. 2nd 9 Weeks October 8, 2016 – December 16, 2016
- c. 3rd 9 Weeks January 5, 2017 – March 15, 2017
- d. 4th 9 Weeks March 16, 2017 – May 25, 2017

G. Textbook(s): Tennessee Senior Bridge Mathematics

H. Other Required Reading

- a. ACT Strategies and Suggestions

I. Other Resources

- a. Odysseyware
- b. Handouts

J. Major Assignments

- a. Special projects given after midterm for extra credit.

K. Procedures for Parental Access to Instructional Materials

- a. Aspen Parent Portal
- b. Instructor's Website
- c. Email Instructor
- d. Parent Teacher Conference
 - a. There are two designated conference dates during the school year. Parents who would like to request additional meetings may make appointments for conferences with the teachers (during their planning periods), counselors, or a principal by telephoning the school office.

L. Field Trips

- a. Any schedule fieldtrip will have a definite educational purpose and will reflect careful planning. Signed permission forms will be obtained when an off campus trip is planned.

M. Standards & Objectives

- a. I Can Statement Scope & Sequence

Quarter 1

S.ID.4 I can calculate the mean, median, mode and range for a set of data.

S.ID.4 I can find a missing piece of data when given rest of data and mean.

A.SSE.2 I can simplify expressions including combine like terms, using the distributive property and other operations with polynomials.

WCE.AII.4 I can add, subtract, multiply, and simplify polynomials.

F.IF.2 I can evaluate functions for inputs in their domain.

N.RN.1 I can evaluate and simplify an expression with a rational exponent.

A.REI.1 I can explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method

E.REI.1 I can solve a simple equation and justify each step using properties.

A.CED.1 I can solve multistep equations and equations with variables on both sides.

AI.WCE.10 I can graph a linear equation.

A.CED.2 I can graph equations in two variables on a coordinate plane and label the axes and scales.

S.ID.7 I can describe and explain the difference between having no slope and having zero slope.

WCE.AII.3 I can describe the domain and range of functions and articulate restrictions imposed either by the operations or by the contextual situations which the functions represent.

AI.WCE.2 I can simplify a radical that represents an imaginary number.

N.CN.1 I can identify that i is a complex number where $i^2 = -1$ and $i = \sqrt{-1}$.

N.CN.1 I can identify that a complex number is written in the form $a + bi$ where a and b are real numbers.

Quarter 2

A.REI.4 can use the quadratic formula to solve any quadratic equation, recognizing the formula produces all complex solutions.

A.REI.4 I can solve quadratic equations using a variety of methods.

N.CN.7 I can solve quadratic equations with real coefficients.

N.CN.7 I can determine when a quadratic equation in standard form, $ax^2 + bx = c$ has complex roots by looking at a graph or by inspecting the discriminant.

WCE.AII.6 I can solve absolute value equations and inequalities.

F.1F.7 I can graph an absolute value function by hand and using technology.

AI.WCE.12 I can explain what an extraneous solution is when solving equations.

AI.WCE.15 I can perform matrix operations.

AI.WCE.16 I can find the inverse of a matrix.

AI.WCE.17 I can solve a system of linear equations using matrices.

A.SSE.2 I can factor using greatest common factors and grouping.

A.SSE.2 I can factor using a difference of two squares.

A.SSE.2 I can choose the appropriate methods for factoring a polynomial.

F.1F.7 I can graph polynomial functions.

F.1F.7 I can identify the intercepts of a function.

