# Bridge to College Mathematics 2021-2022

### **Course Information**

Instructor: Chris Walters Phone: (425) 385 – 7132 email: cwalters@everettsd.org

Extra Help Hours: 7-7:30 AM and 2 – 3 PM

Curriculum Material will be provided by teacher.

Class website: <a href="http://www.everettsd.org/jhs-cwalters">http://www.everettsd.org/jhs-cwalters</a>

All instructional materials can be accessed through Canvas

# **Course Description**

Intended for students heading for college pathways not requiring Calculus, this course emphasizes modeling with mathematics focusing on higher-order thinking skills and understanding math concepts. Topics include building and interpreting functions (linear, quadratic, and exponential), writing, solving, and reasoning with equations and inequalities, and summarizing, representing, and interpreting data. The course addresses a variety of essential standards form Algebra 1, Statistics, and Geometry, plus the Algebra 2 standards and must be taught using the Bridge to College Mathematics curriculum.

# **Learning Outcomes**

#### **EXPRESSIONS**

- Create algebraic expressions from words or tables
- Interpret algebraic expressions

#### PROPORTIONAL REASONING

- Convert between different units of measurement
- Solve problems using proportional reasoning

#### **SOLVING EQUATIONS**

- Solve 1st degree equations and inequalities
- Solve 2<sup>nd</sup> degree equations by factoring, square root, completing the square and quadratic formula
- Solve a system of two linear equations algebraically and graphically.
- Solve a system of a linear and quadratic equations or two quadratic equations
- Solve simple exponential equations using logarithms.

#### LINEAR FUNCTIONS

- Identify slope, intercepts, domain and range for a linear function in a graph, table, or equation
- Write, graph and apply linear function given a table, graph or words.

# QUADRATIC FUNCTIONS

- Understand the three forms of a quadratic function (factored, vertex, and general)
- Write, graph and apply quadratic equations given a table, graph or words.

#### **EXPONENTIAL FUNCTIONS**

- Write, graph and apply exponential equations given a table, graph or words.
- Apply exponential functions to interest problems
- Understand that a logarithm is the inverse of an exponential function.

#### STATISTICAL ANALYSIS

- Choose an appropriate method for collecting data
- Choose an appropriate statistical tool to analyze and report data (measure of center, box plot, 5-number summary, range, IQR, graph, standard deviation)
- Choose the appropriate representation to communicate results of data

# **Course Outline**

- S. Summarizing and Interpreting Statistical Data
- 1. Algebraic Expressions
- **2.** Equations
- 3. Measurement and Proportional Reasoning
- **4.** Linear Functions

- 5. Linear Systems of Equations
- **6.** Quadratic Functions
- 7. Exponential Functions

# **Grades:** http://www.everettsd.org/lms

Classwork/Assignment: 35% Unit Tests and Projects: 65% Letter В C +C C -F A A – B +B -D +D Grade 100-93 92-90 89-87 86-83 82-80 79-77 76-73 72-70 69-67 59-0 Percent 66-60 GPA 4.0 3.7 3.3 3.0 2.7 2.3 2.0 1.7 1.3 1.0 0.0



# **Classroom Policies & Expectations**

# **Grading Policy**

# Mathematical Explanation for all problems: (may include the following but is not limited to)

- Algebraic steps
- Verbal explanations
- Graphs, tables, or pictures that are clearly labeled.
- Calculator entries, when using a calculator for computation.
- Correct standard mathematical notation should be used.
- Decimal answers should be rounded to what makes sense for the problem.
- Final answers can be equivalent to those provided in answer keys.

### Classwork/Assignments (5 points each):

Expect daily assignments to practice concepts taught. Late assignments will be accepted until unit test.

- Assignment turned in on time (1 point)
- Completeness
  - o 100% complete (3 points)
  - o 75% complete (2 points)
  - o 50% complete (1 point)
- Mathematical explanations (1 point)
- Assignment corrected (different color ink)
  - o Each problem marked right or wrong
  - o Errors are corrected or a question is asked

## Assessments (100 points for tests, 50 for quizzes):

Comprised of calculator and non-calculator questions

- If you are absent the day before a test, you will still be expected to take the test.
- All tests must be completed on the day they are started.
- Multiple Choice questions: 2 points each
- Short answer questions: 5 points each
  - o Correct Solution (2 points)
  - Mathematical Explanation (3 points)

## **Test Correction Privileges:**

- Students who are absent (unexcused) on the day of the test will lose the privilege to correct that test.
- Student must complete the test correction form before the next unit test.
- Corrections will earn back ½ the points missed up to 85%.
- Class time may not be used for corrections unless all required daily work is complete.

### **Extra Credit Opportunity:**

- Bonus percentage points will be added to each unit assessment for the unit's assignments.
- Overall assignment score of 97% or higher earns 3% bonus on unit assessment, 87% or higher earns 2% and 77% or higher earns 1%

### **Behavior Expectations**

- All school wide and district policies as described in the Student Handbook will be enforced.
- Students are expected to be respectful towards their peers, teacher and classroom.
- **No Electronic Devices** (cell phone, headphones, etc) will be allowed during class, except a calculator and a district issued device or equivalent without permission from the teacher.
- Drinks are allowed if the bottle has a closable lid (spill proof).
- Food is **not** permitted, unless required for medical reasons.

#### **Materials**

- Notebook (paper or digital) of your choice to keep your notes and classwork organized.
- Scientific calculator recommended.

#### **Tips for Success**

You can learn mathematics, but it won't happen by itself. You will have to work at it!

- 1. Participate in class.
- 2. Take and review your notes each day.
- 3. Attempt all problems assigned and ask about the questions you don't understand.
- 4. Come in for additional tutoring when you first start to struggle.