

## Transition to College Mathematics

### RCAS Policies/Procedures:

Students will be required to follow all RCAS policies and procedures. To view the RCAS High School Student Handbook, click [handbook](#).

### Course Description:

This course will aid in the retention of math skills for later college or career level work. Topics covered in this course are designed to strengthen and review algebraic reasoning. Students will study problem solving strategies, set theory, real number systems, and linear and quadratic functions.

### Textbook:

Pearson Custom Mathematics-TCM

### Required Resources:

“Limited Choice” Resources: (students will be asked to choose at least one title from this list)

### Student Choice:

Will student be asked to choose additional reading material from the classroom or school library?

No

### Essential Questions:

- I can create and graph a linear equation given two points.

- I can use slopes to create equations for parallel and perpendicular lines.
- I can classify systems of equations as consistent/inconsistent and independent/dependent.
- I can create and solve systems of equations graphically and algebraically.
- I can interpret a solution to a system in context.
- I can solve inequalities graphically and algebraically, including absolute value inequalities.
- I can factor a quadratic expression.
- I can solve a quadratic equation.
- I can identify the key features of a quadratic and use them to create a graph.
- I can convert between standard and vertex form.
- I can identify transformations from a parent function.
- I can identify the domain of a function.
- I can simplify expressions involving exponents and radicals.
- I can simplify and expand expressions involving logarithms using the properties of logarithms.
- I can convert between exponential, logarithmic, and radical forms.
- I can identify the domain of a radical function using a table or a graph.
- I can add, subtract, multiply, and divide rational expressions.
- I can simplify rational functions.
- I can solve rational equations and proportions.
- I can identify the domain of rational functions.

### **Essential Learning Intentions:**

#### Create Mathematical Representations

A. I can create visual/graphical representations.

B. I can create symbolic representations.

#### Simplify, Solve, Evaluate

A. I can rewrite and/or simplify expressions.

B. I can solve equations and inequalities, algebraically.

### Communication and Reasoning

A. I can analyze and interpret the structure and/or solutions of a problem.

B. I can make viable arguments and decisions.