COURSE: **Mathematics III**

INSTRUCTOR: Andy Miller – email: andy.miller@gcssk12.net

PREREQUISITE: Completion of Math I and Math II

**Grading Policy:**

Final grade: 45% Major Grades, 35% Daily, 20% Final

Daily work: Quizzes will be given regularly and will count as a daily grade

Major Grades: Tests

Final: A final exam will be given at the end of the semester

**SCHOOLWIDE RULES**:

1. **RESPECT for the teacher , other students, and school property**
2. **RESTRAINT and Self –Control**
3. **RESPONSIBILITY for your own behavior**

**All Policies and Regulations set forth in the Student Handbook must be obeyed including**

**ID’s must be worn during school day at all times**

**Cell phones/electronic devices are NOT permitted during class time**

**NO hats are permitted to be worn in the school building**

Discipline Consequences:

1. Warning
2. Parental Contact
3. Referral to your Principal in charge of Discipline

**Course Description:** This course is the third course in a sequence of courses designed to provide you with a rigorous program of study in mathematics. It includes exponential and logarithmic functions, matrices, polynomial functions of higher degree, conic sections, and normal distributions.

**COURSE OUTLINE ( including Georgia Performance Standards Covered)**

**Unit 1**: Modeling with Matrices

MM3A4 – Perform basic operations with matrices

MM3A5 – Use matrices to formulate and solve problems

MM3A6 – Solve linear programming problems in two variables

MM3A7 – Understand and apply matrix representations of vertex-edge graphs

**Unit 2**: Conics

MM3G1 – Investigate the relationships between lines and circles

MM3G2 – Recognize, analyze, and graph the equations of the conic sections

MM3G3 – Investigate planes and spheres

**Unit 3**: Logs and Exponential Functions

MM3A2 – Explore logarithmic functions as inverses of exponential functions

**Unit 4**: Solving Equations and Inequalities

MM3A2 – Explore logarithmic functions as inverses of exponential functions

MM3A3 – Solve a variety of equations and inequalities

**Unit 5**: Polynomial Functions

MM3A1 – Analyze graphs of polynomial functions of higher degree

MM3G3 – Investigate planes and spheres

**Unit 6**: Data Analysis

MM3D1 – Create probability histograms of discrete random variables, using both experimental and theoretical probabilities

MM3D2 – Solve problems involving probabilities by interpreting normal distributions as a probability histogram for a continuous random variable (z-scores are used for a general normal distribution)

MM3D3 – Understand the differences between experimental and observational studies by posing questions and collecting, analyzing, and interpreting data

**Required Materials:**

1. Pen or Pencil; sharpened prior to class or mechanical pencil with lead
2. Paper
3. Calculator
4. A math notebook is highly recommended

**Classroom Rules**

1. **Do Not Talk** when I am talking!
2. **Be Prepared.** Be in your seat with your materials prepared when the bell rings.
3. **Be Enthusiastic.** Questions on topic are expected. Make sure that you are listening to another student’s question – it may be the same as yours.

###### Signatures: Parents: Please sign below to indicate that you have read and understand all of the information in this syllabus. If you have any questions or concerns please email or call me and I will respond as soon as possible.

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Student Signature Date

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Parent Signature Date