**Chattooga High School 2016-2017**

**Class: Pre-Calculus Teacher: Mr. Bond**

**Email:** **kbond@chattooga.k12.ga.us** **Website: mrbondmath.weebly.com**

**Course Description:** Pre-Calculus is designed to deepen the math knowledge of students in their effort to meet the standards of more rigorous and relevant mathematics courses. This course is designed to help students be successful after high school when continuing one’s education. The course gives time and a variety of strategies to help students build a stronger foundation for success in their current and future mathematics courses.

**Materials:** pencil, paper, and notebook

**Class Rules:**

 **Be on time:** Be in your assigned seat when the bell rings! Tardies will report to ISI.

 **Be prepared:** Have paper, pencil, notebook and readiness to learn and work.

 **Be engaged:** Participate, pay attention, take notes, and complete assignments.

 **Be responsible:** Complete your own work and turn in on time.

 **Be respectful:** Be polite, don’t speak out of turn and take care of school property.

**Follow safety rules:** No fighting, No threats or verbal abuse, No horseplay, No physical contact

**Grading:**

**50%....Unit Tests…** unit tests, projects, etc.

 **20%....Quizzes…** assessments of standards, notebook, etc.

 **30%....Daily…**all daily and homework assignments

 **Final grades will be earned according to the following scale:**

 **80% All graded items above**

 **20% Semester Final**

**Assignments:** Students must show all necessary steps and explain your thinking process used to arrive at the correct answer on ALL work. Failure to do so may result in loss of credit for the problem. All assignments need to be completed in pencil. Cheating will result in a grade zero.

**Attendance/Makeup Work: Regular class attendance is crucial to your success!!** If you are absent, it is your responsibility to complete all missing assignments.

**Cell Phones:** No cell phones are allowed during class unless directed by the teacher.

**Notebook:** Students will be REQUIRED to keep a notebook with all work/notes from each unit in it.

**Test Corrections:** For each unit test that is scored below an 80 you will be allowed to complete test corrections for half credit added back to the original score as long as the new score does not exceed an 80.

**Course Outline:**

**1st Semester**

**Unit 1- Introduction to Trigonometric Functions**

**Unit 2- Trigonometric Functions**

**Unit 3- Trigonometry of General Triangles**

**Unit 4- Trigonometric Identities**

**Unit 5- Matrices**

**2nd Semester**

**Unit 6- Conics**

**Unit 7- Vectors**

**Unit 8- Probability**

If you have any questions, please email me or contact the school and schedule a conference.

Mr. Kevin Bond

School Phone: 706-857-2402

Email: kbond@chattooga.k12.ga.us

## Units Overview

**Unit 1 - Introduction to Trigonometric Functions:** Students will use the unit circle to extend the domain of trigonometric functions to include all real numbers. Students will develop understanding of the radian measure of an angle, graph trigonometric functions, and derive and apply the Pythagorean identity.

**Unit 2 - Trigonometric Functions:** Building on standards from Unit 1, students extend their study of the unit circle and trigonometric functions. Students will create inverses of trigonometric functions and use the inverse functions to solve trigonometric equations that arise in real-world problems.

**Unit 3 - Trigonometry of General Triangles:** Building on standards from Unit 1 and Unit 2, students will apply trigonometry to general triangles. Students will derive the trigonometric formula for the area of a triangle and prove and use the Laws of Sines and Cosines to solve problems.

**Unit 4 - Trigonometric Identities:** Building on standards from the first three units, students will prove and use addition, subtraction, double, and half-angle formulas to solve problems.

**Unit 5 - Matrices:** Students will perform operations on matrices, use matrices in applications, and use matrices to represent and solve systems of equations.

**Unit 6 - Conics:** Building on standards from previous courses, students will derive the equations of conic sections (parabolas, ellipses, and hyperbolas). Students will solve systems of a linear and quadratic equation in two variables.

**Unit 7 - Vectors:** Students will extend their understanding of complex numbers and their operations through graphical representations. Students will perform operations on vectors and use the operations to represent various quantities.

**Unit 8 - Probability:** Students will extend their study of probability by computing and interpreting probabilities of compound events. Students will calculate expected values and use them to solve problems and make informed decisions.

Please sign and return stating that you and your parent understand the syllabus

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**Student Signature**

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**Parent/Guardian Signature**

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**Parent phone contact** (preferably cell)

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**Parent email**

**Questions/comments/concerns you would like to share so that I can best meet the needs of your child:**

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