**Instructor Information**

Name:  
E-mail address:  
School phone number:  
Web page address:  
Best times to be reached:  

**Course Description**

This course is a study of trigonometric functions, geometric concepts from the analytic view of algebraic procedures, functions and calculus underpinnings. Technology will be used for applications and problem solving.

**District Standards and Power Benchmarks**

Algebra Standard: Understands and applies concepts of algebra and functions
   1: Understands patterns, relations and functions.
   3: Uses mathematical models to represent and understand quantitative relationships
   4: Analyzes change in a variety of situations

Geometry Standard: Understands and applies concepts of geometry
   1: Analyzes characteristics and properties of two- and three-dimensional geometric shapes and develops mathematical arguments about geometric relationships.
   2: Specifies locations and describes spatial relationships using coordinate geometry and other representational systems
   3: Applies transformations and uses symmetry to analyze mathematical situations.
   4: Uses visualization, special reasoning, and geometric modeling to solve problems

Measurement Standard: Understand and apply concepts of measurement
   2. Applies appropriate techniques, tools and formulas to determine measurements

   1: Uses a variety of strategies to solve problems

**Course Information**

Course length and credits: Two terms  
Credits: 1  
Prerequisite: Geometry and Algebra 2
Course Outline/Calendar

Term 1:
- Unit 1. Functions and Graphs (parametric optional)
- Unit 2. Polynomial, Power, and Rational Functions (omit Solving Inequalities)
- Unit 3. Exponential, Logistic, And Logarithmic Functions (Logistic optional)

Term 2:
- Unit 4. Trigonometric Functions
- Unit 5. Analytic Trigonometry
- Unit 6. Applications of Trigonometry (Polar only, Sections 4 and 5)
- Unit 8. Analytic Geometry in Two and Three Dimensions (Sections 1 – 3)
- Unit 9. Discrete Mathematics (Sections 1,2,4,5)
- Unit 7. Systems and Matrices (Sections 1,2,4,5) Optional

Text/Other Required Materials/Resources
Title: Precalculus Graphical, Numerical, Algebraic
Author: Demana, Waits, Foley, Kennedy
Publisher: Prentice Hall (2007)

Instructional Procedures & Support
Students are expected to bring all supplies to class every day including the textbook, a notebook, pencil and graphing calculator. Students are expected to participate in class discussions and in small group discussions. Written assignments will be given daily and should be completed before the next class period. Good attendance and punctuality are essential for success in this course.

Classroom Management Procedures
1. Students are expected to be in class and on time.
2. All tardies will result in a classroom consequence.
3. All unexcused absences will be dealt with according to the school attendance policy.
4. Students are responsible for completing make-up work in a timely manner.

Assessment Plan
Daily Practice/Projects/Spreadsheet - 10%
Quizzes/Tests - 70%  (or Quizzes 30% and Tests 40%)
Final Exam - 20%  Notes may not be used on the final.

Grading System
Grades will be determined by the DCSD Grading Scale.
100-90 A
89-80 B
79-70 C
69-60 D
59-0 F
Precalculus: Graphical, Numerical, Algebraic was created for the needs of today’s students with the perfect balance of graphical and algebraic representation. This program was designed by a nationally recognized author team with years of experience and expertise, and prepares students for a course in Calculus. Features: The Twelve Basic Functions are emphasized as a major theme and focus. Now Try study aids for each exercise encourage students to test their comprehension of concepts. Vocabulary and properties are highlighted for quick access and easy reference. Explorations appear in Precalculus, the authors encourage graphical, numerical, and algebraic modeling of functions as well as a focus on problem solving, conceptual understanding, and facility with technology. They have created a book that is designed for instructors and written for students making this the most effective precalculus text available today. Contents: P. Prerequisites 1. Functions and Graphs 2. Polynomial, Power, and Rational Functions 3. Exponential, Logistic, and Logarithmic Functions 4. Trigonometric Functions 5. Analytic Trigonometry 6. Applications of Trigonometry 7. Systems and Matrices 8. An