

Precalculus and Trigonometry 2011

Instructor: Wanda Henderson

Contact Information:

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Text: Precalculus by Holt, Rinehart and Winston, 2006

Room: 303

Prerequisites: Algebra II

Course Objectives: To provide the student with the necessary knowledge needed to advance to Calculus.

Methods of Instruction: Warm-up problems, review of previous homework, problem solving sessions, calculator activities, in-class activities, computer activities, exit cards, and projects.

Classroom Procedures:

- Take out books and homework
- School bags belong under your seat
- Work on warm-up problem
- Bathroom passes will be issued when needed
- Sign out sheet on left side of door
- Listen to announcements
- Sit quietly until teacher dismisses you

Methods of Evaluation:

Tests	30%
Quizzes	20%
Assignments	15%
Activities	15%
Projects	<u>20%</u>
	100%

Extra help is available before and after school.

Improper Behavior:

First offense-15 min. after school with teacher-parent notified

Second offense-30 min. after school with teacher-parent notified

Third offense-referral to Principal for Sat. detention-parent notified

1st Quarter

I. Functions and Graphs

- Inverse Functions
- Compositions

II. Polynomial and Rational Functions

- Polynomial Functions
- Real Zeros
- Rational Functions
- Complex Numbers
- The Fundamental Theorem of Algebra
- Complex Plane

III. Exponential Functions

- Radicals and Rational Exponents
- Exponential Functions
- Applications of Exponential Functions

2nd Quarter

I. Logarithmic Functions

- Common and Natural Logarithmic Functions
- Properties and Laws of Logarithms
- Solving Exponential and Logarithmic Equations

II. Trigonometry

- Right –Triangle Trigonometry
- Trigonometric Applications
- Angles and Radian Measure
- Trigonometric Functions
- Basic Trigonometric Identities

3rd Quarter

I. Trigonometric Graphs

- Graphs of the Trigonometric Functions
- Periodic Graphs and Amplitude
- Periodic Graphs and Phase Shifts
- Graphical Solutions to Trigonometric Equations
- Inverse Trigonometric Functions
- Algebraic Solutions to Trigonometric Equations

II. Trigonometric Identities and Proofs

- Identities and Proofs
- Addition and Subtraction Identities

4th Quarter

I. Systems & Matrices

- Solving systems of Equations
- Matrices
- Matrix Operations
- Matrix Methods for Square Systems

II. Vectors

- Addition
- Subtraction
- Magnitude and Direction
- Multiply by a Scalar