

**Trigonometry/ Pre-Calculus
Course Syllabus**

2011-2012

**Mrs. Dawn Haught
Instructor**

Course Description: During this course students will explore more in depth the topics introduced in Algebra II. They will also build upon this prior knowledge to become better problem solvers and they will increase their reasoning skills through mathematics. Upper level Mathematics helps to increase problem-solving skills and has been shown to improve performance in other academic endeavors. This course will attempt to do just that. Trigonometry/ Pre-Calculus is taken after successful completion of Geometry and Algebra II . The course is not only an extension and completion of the topics covered in Algebra II and Geometry, but also an introduction of new trigonometric topics. This course is designed to prepare students for college level mathematics. The Course is worth 1 Math Credit and lasts 2 Semesters.

Instructional Philosophy: Students will be expected to keep a notebook and will have frequent homework. Class time includes note taking, problem solving and occasional projects and/or presentations. Methods of assessment will include grading of homework, notebooks, quizzes, test and projects. Homework is an essential part of the course and will be an important component to student success. Students will be expected to keep all notes and assignments throughout the course in a folder/notebook. We will be utilizing the textbook, graphing calculator technology, the computer and smartboard to accomplish the objectives of the course.

Materials Needed for the Course:

- 3-ring binder
- loose-leaf notebook paper
- dividers
- pencil
- scientific calculator (A Graphing Calculator if possible)

Course Goals:

Students will...

- Demonstrate knowledge of topics necessary to be prepared for College level mathematics courses
- Be able to apply this mathematics to everyday life
- Become better problem solvers
- Develop more critical thinking skills through problem solving
- Be better able to use technology for mathematical purposes

In depth analysis and instruction of the following possible topics:

- Linear relations and functions and inequalities
- The nature of graphs
- Polynomial and rational functions
- The trigonometric functions and their graphs
- Trigonometric Identities and equations
- Polar coordinates and complex numbers
- Conics
- Exponential and logarithmic functions

Projects:

(Possible Topics)

- Students will use the Internet to research a topic, approved by the instructor, relating to their Technical field of study and find mathematical statistics involving that topic. Students will then organize this data into a paper.
- Students will complete a project related to a mathematical topic covered in the course.

Course Assessment Plan:

- Students are given points for course work.
Points usually given:
 - Homework: 5 points (Work must be shown to receive credit)
 - Notebook: 25-30 points
 - Test: 100 points
 - Quiz: 30-50 points
 - Projects: 30-50 points
- Late Homework is accepted but points are deducted for every day that it is late.
- Grading Scale:
 - 92% to 100% of total points A
 - 83% to 91% of total points B
 - 74% to 82% of total points C
 - 66% to 73% of total points D
 - Below 66% of total points F
- Students will be expected to complete comprehensive Semester and Final Exams that will be graded on the above grade scale and will be a separate grade on the report card. If a student receives all A's they will be exempt from the exams and will receive an A on it.