

# MATH 128: TRIGONOMETRY

Class Information	Instructor Information
Semester: Spring 2005	Instructor: Michael Mays
Sections: Off Campus	Office: 308-E Armstrong Hall, WVU
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	Office Hours: to be determined (see <a href="#">update</a> )
<b>Text:</b>  Sullivan & Sullivan. <i>Trigonometry Enhanced            with Graphing Utilities, 3rd            Ed.</i>	<b>Course Homepage:</b>  <a href="http://jacobi.math.wvu.edu/~mays/WvEB128/WvEB128.htm">http://jacobi.math.wvu.edu/~mays/WvEB128/WvEB128.htm</a>

**Pre-requisite:** One of the following – satisfactory Math SAT or Math ACT score, satisfactory WVU Math Placement Test score, completion of Pre-College Algebra Workshop, or a grade of C or better in Math 22 from another college.

**Objectives:** The general goals of this course are common to all the courses in the Institute for Math Learning at WVU:

- **APPLICATIONS AS CENTRAL FOCUS:** use mathematics to model and solve more realistic problems
- **PROBLEM SOLVING:** gain experience as a problem solver, to use a heuristic to analyze problems in an organized manner
- **CONCEPTUAL UNDERSTANDING:** rather than just rote memorization of algorithms
- **MULTIPLE APPROACHES:** to examine problems from analytical, geometric and numeric perspectives, to make judgments about the appropriateness of the choice of formal or approximate methods of solution
- **TECHNOLOGY AS A TOOL:** use technology as an integral part of the process of formulation, solution, and communication, to gain experience in selecting the proper tool for a given problem
- **ACTIVE STUDENT LEARNING:** to engage in the exploration and discovery of concepts and to learn to work cooperatively to solve problems
- **COMMUNICATION OF IDEAS:** to demonstrate understanding by explaining in written or oral form the meanings and applications of concepts
- **HISTORY OF MATHEMATICS:** to learn about mathematics as a human endeavor

The specific goals of the trigonometry course are to stress an algebraic, graphic, and numeric approach to:

- the concept of function, especially trigonometric functions arising from the study of circular motion

- right angle trigonometry and trigonometric functions of general angles
- the application of trigonometric functions in modeling problems
- trigonometric equations, inequalities, and identities
- graphing trigonometric functions
- applying trigonometric functions to polar coordinates, complex numbers, and vectors

To accomplish these goals the class incorporates interactive laboratories using technology and student activities that emphasize writing and student cooperation as integral parts of the class. Computer labs will be held in the Institute for Math Learning Computer Center in 213-215 Armstrong.

**Evaluation:** Multiple forms of assessment will be used to measure your progress in understanding trigonometry. The distribution of these assessments is:

Assessment	Number	Points, Percent of Grade
1. Lab activities	11	100, 12.5%
2. Homework quizzes	10	80, 10%
3. Exams	4	400, 50%
4. Facilitator points		60, 7.5%
5. Comprehensive Final	1	160, 20%

Grading Scale: 90-100% A; 80-89.9% B; 70-79.9% C; 60-69.9% D; 0-59.9% F. Out of 800 possible points for the course, expect to need 720 for an A, 640 for a B, 560 for a C, or 480 for a D.

**HELP:** On an average, you should expect to spend six hours per week outside of class and lab time working on this class. If you are spending more, then you may need to seek help! There are several excellent sources for such help. First, seek help from your classmates. Often they can explain the problem clearly since they have been working on it. Second, seek assistance from your facilitator. A few well asked questions may clarify the problem.

West Virginia University is committed to social justice. I concur with that commitment and expect to foster a nurturing learning environment based upon open communication, mutual respect, and non-discrimination. Our University does not discriminate on the basis of race, sex, age, disability, veteran status, religion, sexual orientation, color or national origin. Any suggestions as to how to further such a positive and open environment in this class will be appreciated and given serious consideration.

If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate arrangements with [Disability Services](#) (293-6700).