Instructor: Penny Long  
Place: Nacogdoches High School  
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Office Hours: Monday through Friday 7-7:30 am, Megalunch T/Th 11:50-11:45 am, email is checked daily

Required Materials  

Course Description  
We will study the six trigonometric functions and how they are related to one another. Our study will include radian measure of angles, the trig functions and their inverse functions, trig identities, graphs of trig functions, solutions of triangles, complex numbers, and a polar coordinate system for the plane.

Course Requirements  
There will be three exams and a comprehensive final that will be proctored on your campus. There are quizzes that must be completed. Homework assignments are made after the lectures and while they are not necessarily graded, practicing homework is how we learn mathematics, so the homework should be completed in preparation for the quizzes.

Final Grade Components Grading Scale  
20% Homework/Quizzes 90% - 100% A  
60% Tests (3 @ 20% each) 80% - 89% B  
20% Comprehensive Final Exam 70% - 79% C  
100% Final Course Grade 60% - 69% D

General Policies and Information  
- You earn your grade by *communicating* your understanding of the material through showing clearly how the solution was derived on the homework, quizzes, and exams.  
- Clearly communicating mathematics will be essential in this course.  
- Please read the department syllabus at http://www.sfasu.edu/math/courses/syllabi/MTH133Syllabus.pdf

Attendance Policy  
- You are expected to attend class regularly. Since you have a full semester to arrange any plans, they are not an excuse for missing the final.  
- Students who have 3 or more unexcused absences may have points deducted from their final average.
University Policies

- **Academic Integrity (A-9.1)** Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.
  
  Definition of Academic Dishonesty: Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one’s own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one’s paper without giving the author due credit. Please read the complete policy at [http://www.sfasu.edu/policies/academic_integrity.asp](http://www.sfasu.edu/policies/academic_integrity.asp)

- **Withheld Grades Semester Grades Policy (A-54)** Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated grade.

- **Students with Disabilities** To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to [http://www.sfasu.edu/disabilityservices/](http://www.sfasu.edu/disabilityservices/).

- **Acceptable Student Behavior** Classroom behavior should not interfere with the instructor’s ability to conduct the class or the ability of other students to learn from the instructional program (see the Student Conduct Code, policy D-34.1). Unacceptable or disruptive behavior will not be tolerated. Students who disrupt the learning environment may be asked to leave class and may be subject to judicial, academic or other penalties. This prohibition applies to all instructional forums, including electronic, classroom, labs, discussion groups, field trips, etc. The instructor shall have full discretion over what behavior is appropriate/inappropriate in the classroom. Students who do not attend class regularly or who perform poorly on class projects/exams may be referred to the Early Alert Program. This program provides students with recommendations for resources or other assistance that is available to help SFA students succeed.

**Student Learning Outcomes (SLO):** At the end of MTH 133, a student who has studied and learned the material should be able to:

1. State and use the unit circle and ratio definitions of the six trigonometric functions. [EEO: 1, 2, 5, 6]
2. Recall and use exact values of the trigonometric functions at integer multiples of \( \frac{\pi}{4} \) and \( \frac{\pi}{6} \) in various contexts, especially in graphing trigonometric functions. [EEO: 2, 5]
3. Graph the trigonometric functions and transformations of trigonometric functions by recognizing amplitude, changes in period, vertical translations, and phase shifts. [EEO: 2, 3, 4, 5]
4. Use appropriate trigonometric identities in solving equations involving trigonometric functions and in calculating trigonometric function values. [EEO: 2, 3, 4, 5]
5. Use logical reasoning and known trigonometric identities to verify that an equation is a trigonometric identity. [EEO: 3]
6. Use inverse trigonometric functions in applications and in solving equations. [EEO: 1, 2, 3, 4, 7]
7. Determine unknown measures of sides and/or angles of triangles for which some specific measures are given. [EEO: 1, 4, 6, 7]
8. Solve application problems using tools such as vectors, right triangle trigonometry, the Law of Sines, and the Law of Cosines. [EEO: 1, 4, 6, 7]
9. Perform arithmetical operations with complex numbers and find powers and roots of complex numbers in trigonometric form. [EEO: 2, 4, 7]
10. Use polar coordinate system, relate it to the rectangular coordinate system, and graph equations using polar coordinates. [EEO: 1, 2, 5, 7]

**Exemplary Educational Objectives (EEO):**

1. To apply arithmetic, algebraic, geometric, higher-order thinking, and statistical methods to modeling and solving real-world situations.
2. To represent and evaluate basic mathematical information verbally, numerically, graphically, and symbolically.
3. To expand mathematical reasoning skills and formal logic to develop convincing mathematical arguments.
4. To use appropriate technology to enhance basic mathematical thinking and understanding and to solve mathematical problems and judge the reasonableness of the results.
5. To interpret mathematical models such as formulas, graphs, tables and schematics, and draw inferences from them.
6. To recognize the limitations of mathematical and statistical models.
7. To develop the view that mathematics is an evolving discipline, interrelated with human culture, and understand its connections to other disciplines.