Course description: The course revolves around the study of the six trigonometric functions and their relationships to one another, as well as their applications to other areas of mathematics and problems in the physical world. This course of study should assist the student in making the transition from manipulative skills to an understanding of mathematical concepts. Our study will include radian measure of a tangent, their graphs, inverse trigonometric functions, trigonometric identities, trigonometric equations, solutions of triangles, vectors in the plane, complex numbers, and a polar coordinate system for the plane.

Text and Materials: The required textbook is *Trigonometry*, by Mark Dugopolski, 4th edition, ISBN 321923480. For exams, students may use a scientific or graphing calculator, but not symbolic calculators. For example, you may use a TI-83/84, but not a TI-89. If you have any questions about your calculator, please see me.

Exam Schedule: Please note that the dates for our in-class exams below are subject to change. The final is university scheduled and cannot be taken at a different time without permission of the Dean of the College of Sciences and Mathematics. Please schedule your end-of-semester travel plans accordingly.

<table>
<thead>
<tr>
<th>Exam</th>
<th>Date</th>
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<tbody>
<tr>
<td>Exam 1</td>
<td>Wednesday, September 20</td>
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<tr>
<td>Exam 2</td>
<td>Wednesday, October 18</td>
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<tr>
<td>Exam 3</td>
<td>Wednesday, November 15</td>
</tr>
<tr>
<td>Final</td>
<td>Monday, December 11, 10:30 am-12:30 pm</td>
</tr>
</tbody>
</table>

Course Requirements:

- **Three in-class exams**—If a student must miss an exam due to an excused absence, special arrangements should be made in advance. **Cell phones are not allowed out during exams, even if that is all you brought.** Students are responsible for bringing their own calculator to exams, see above for restrictions on calculators. No music (even through headphones) is allowed during exams.
- **Weekly homework**—Weekly homework will be handed out in class on most Mondays and will be collected for a grade. Exceptions may be made during exam weeks. **No late homework will be accepted for a grade. Once homework has been returned to the class, none will be accepted even with an excuse.** You can hand in an assignment early, or put it in the box outside my office door.
- **A comprehensive final exam**—The final exam is Monday, December 11, 10:30 am-12:30 pm.
- **WeBWorK Homework**—Exercises will be set up for you on WeBWorK. This homework is for you to practice the exercises and will not be a part of your grade. Completing homework is how you become responsible for identifying which topics on which you need to spend more time.
- **Class attendance and participation**—Students are expected to attend all class meetings, arriving on time. If you are absent, you are responsible for determining what you missed and for being prepared for class when you return. Leaving class early without notifying the professor in advance will result in your being counted absent for the class session. Students that sleep in class, send or receive text messages, or conduct other online activities not directly related to class will be counted absent.
- **Preparing for class**—Students should be prepared to invest several hours per day outside of class reading the text, practicing examples, and working homework exercises. **Material to be discussed in class should be read before coming to class.** Check your university email regularly, as I may send reminders, assignments, or announcements.
- **Other**—There will be no extra credit or alternate credit assignments for this class.

**Grading Policy:**  
- 60% Three in-class Exams  
- 15% Homework  
- 25% Comprehensive Final Exam  

**Grading Scale:**  
- 90% - 100%: A  
- 80% - 90%: B  
- 70% - 80%: C  
- 60% - 70%: D  
- Below 60%: F
Course outline:

Angles and definitions of trigonometric functions
- Angles
- Trigonometric functions

Graphs of trigonometric functions
- Basic graphs of the trigonometric functions
- Modified graphs of the trigonometric functions

Inverse Trigonometric Functions and Solving Equations
- Definitions and graphs of inverse trigonometric functions
- Calculations with inverse trigonometric functions
- Solving trigonometric equations

Identities
- Logic and techniques for proving various types of trig identities

Solving Triangles
- Solving right triangles using Law of Cosines and Law of Sines

Vectors, Complex Numbers, and Polar Coordinates
- Vectors
- Complex number system
- Polar coordinate system

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

- 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 course for the purpose of computing the grade point average. The circumstances precipitating the request must have occurred after the last day in which a student could withdraw from a course. Students requesting a WH must be passing the course with a minimum projected grade of C.

- 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/.

- 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.