Mathematics 1316
Trigonometry
Monday – Friday
_____ Period, Room 112

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Conference: _____ Period

Course Description

MATH 1316 Trigonometry (3 college credits): Trigonometric functions, radian measure, solutions of triangles, graphs of trigonometric functions, trigonometric identities, trigonometric equations, polar coordinates, vectors, and conic sections.


Access to course: This course will be accessed through Pearson MyLab Math. You will have access to an electronic version of the textbook through MyLab Math. However, you may purchase a hard copy of the textbook if you wish. You will find a link to Pearson’s MyLab Math in Blackboard.

Prerequisite: Passing score on placement exam.

Grading for each 6 week grading period: Tests 75%, Assignments 25%
Grading for final course grade: Final 25%, Semester grades 75%

Assignments: Assignments will be completed in MyLab Math. You are not required to turn in hand-written work. You may receive help on all assignments.

Tests: Tests will be administered in MyLab Math and must be completed in one class period. You may not receive help on tests. You may also not work past the bell. The grade that you receive in MyLab Math will likely not be your actual test grade. In addition to completing a test in MyLab Math, you will also turn in hand-written justification for each question. This justification/work would be similar to how you would turn in justification had this been a paper exam. For each question that you get correct, I will review your hand-written work to ensure that you sufficiently justified your answer. For example, if you do not submit any hand-written work for a question, your score for that question will be reduced to 0%. If you submit complete justification for a question, then your score for that question will stay at 100%. Partial, insufficient, or incorrect justification will receive a score between 0% and 100%, based on my discretion. For each question that you get incorrect, I will review your hand-written work and see if any partial credit points should be awarded. For example, if your scratch work has full justification to show the correct answer is 104.3, but you accidentally typed in 1043 into MyLab Math, then you will earn back several points. On the other hand, if your hand-written work has full justification to show that the correct answer is 104.3, but you type in 37, then you will receive almost no points.

Fall 2021
Course Content: The following chapters and content will be covered.

5. Trigonometric Functions: Angle measures, right triangle trigonometry, values of trig functions of acute angles, trig functions of any angles, unit circle, graphs of trig functions.

6. Analytic Trigonometry: Inverse trig functions, trig equations, trig identities, trig formulas.

7. Applications of Trigonometric Functions: Application using right triangles, law of sines and cosines, area of triangles.

8. Polar Coordinates; Vectors: Polar coordinates, polar equations and graphs, vectors.

9. Analytic Geometry: Conics, including circle, parabola, ellipse, and hyperbola, parametric equations.

Academic Integrity: Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject to disciplinary action and possible expulsion from ASU. The College of Science and Engineering adheres to the university’s Statement of Academic Integrity.

Accommodations for Students with Disabilities: ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA) and subsequent legislation. Student Disability Services is located in the Office of Student Affairs and is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability. It is the student’s responsibility to initiate such a request by contacting an employee of the Office of Student Affairs, in the Houston Harte University Center, Room 112, or contacting the department via email at ADA@angelo.edu.

For more information about the application process and requirements, visit the Student Disability Services website. The employee charged with the responsibility of reviewing and authorizing accommodation requests is: Dallas Swafford Director of Student Disability Services Office of Student Affairs 325-942-2047 dallas.swafford@angelo.edu Houston Harte University Center, Room 112

Incomplete Grade Policy: It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required. See ASU Operating Policy 10.11 Grading Procedures for more information.

Plagiarism: Plagiarism is a serious topic covered in ASU’s Academic Integrity policy in the Student Handbook. Plagiarism is the action or practice of taking someone else’s work, idea, etc., and passing it off as one’s own.

Fall 2021
Student Learning Outcomes
Upon completion of this course, students will be able to:

- **Students will demonstrate factual knowledge of mathematical notation and terminology used in this course.** Students will read, interpret, and use the vocabulary, symbolism, and basic definitions used in trigonometry including definitions of the six trigonometric functions; types of angle measure and notation; equations of conic sections; representing equations in polar coordinates; and the definition of vectors.

- **Students will be able to describe the fundamental principles including the laws and theorems arising from the concepts covered in this course.** Students will identify and apply the laws and formulas that result directly from the definitions; for example, the fundamental identities, properties of angles and triangles, characteristics of the trigonometric functions, inverse trigonometric functions, polar equations (including graphs), and formulas for converting between polar and rectangular coordinates.

- **Students will apply course material along with techniques and procedures covered in this course to solve problems.** Students will use the facts, formulas, and techniques learned in this course to prove identities and solve trigonometric equations; and solve various types of triangle problems, distance and navigation problems, and linear and angular velocity problems.

- **Students will develop specific skills, competencies, and thought processes sufficient to support further study or work in this field or related fields.** Students will acquire a level of proficiency in the fundamental concepts and applications necessary for further study in academic areas requiring trigonometry as a prerequisite, or for work in occupational fields requiring a background in trigonometry. These fields might include education, business, finance, marketing, comp

**Cell Phones:** Cell phone use in class is strictly prohibited. I will remove them from you if I see them.