MATH 1316 — Plane Trigonometry
Borger High School / Frank Phillips College
Adjunct Professor Thomas Hodge

General Course Information
Credit Hours: 3
General Education Core Curriculum Course

Prerequisite
One unit of plane geometry, and two units of high school algebra. Passage of the Math
Section of a TSI approved test or completion of MATH 0303 with a grade of C or better.

Course Description
In-depth study and applications of trigonometry including definitions, identities, inverse
functions, solutions of equations, graphing, and solving triangles. Additional topics such
as vectors, polar coordinates and parametric equations may be included.

THECB Approval Number 27.0101.53.19

Statement of Purpose
Through the Texas Core Curriculum, students will gain a foundation of knowledge of
human cultures and the physical and natural world, develop principles of personal and
social responsibility for living in a diverse world, and advance intellectual and practical
skills that are essential for all learning.

Core Objectives Required for Mathematics Courses
Courses in this category focus on quantitative literacy in logic, patterns, and relationships.

Courses involve the understanding of key mathematical concepts and the application of
appropriate quantitative tools to everyday experience.

- **Critical Thinking Skills** – to include creative thinking, innovation, inquiry, and
  analysis, evaluation and synthesis of information
- **Communication Skills** – to include effective development, interpretation and
  expression of ideas through written, oral and visual communication
- **Empirical and Quantitative Skills** – to include the manipulation and analysis of
  numerical data or observable facts resulting in informed conclusions

Required Core Objective	Activity Related to Core Objective
Communication – to include effective development, interpretation, and expression of ideas through written, oral, and visual communication	Students will solve a mathematical problem given through a verbal and visual description.
Communication – to include effective development, interpretation, and expression of ideas through written, oral, and visual communication	Students will select a mathematical model for a given set of data and present their results and reasoning for the solution.
Communication – to include effective development, interpretation, and expression of ideas through written, oral, and visual communication	Students will select a mathematical model for a given set of data and summarize the results in a written assignment.
Critical Thinking Skills – to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information	Students will solve a mathematical problem given through a verbal and visual description.
Critical Thinking Skills – to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information	Students will select the appropriate method for solving a given problem or problems and explain their reasoning behind their choice.
Critical Thinking Skills – to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information	Students will select a mathematical model for a given set of data and summarize the results in a written assignment.
Quantitative Literacy – to include the ability clearly communicate quantitative arguments in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate)	Students will solve a mathematical problem given through a verbal and visual description.
Quantitative Literacy – to include the ability clearly communicate quantitative arguments in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate).	Students will select a mathematical model for a given set of data and present their results to the class.
Quantitative Literacy – to include the ability clearly communicate quantitative arguments in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate)	Students will select a mathematical model for a given set of data and summarize the results in a written assignment.

Learning Outcomes

Upon successful completion of this course, students will:

1. Compute the values of trigonometric functions for key angles in all quadrants of the unit circle measured in both degrees and radians.
2. Graph trigonometric functions and their transformations.
3. Prove trigonometric identities.
4. Solve trigonometric equations.
5. Solve right and oblique triangles.
6. Use the concepts of trigonometry to solve applications.

Methods of Evaluation

Category	Percentage
Dual-Credit Classes	
Exams	70%
Daily Work	30%
Total	100%

Academic Honesty and Integrity
Students attending Frank Phillips College are expected to maintain high standards of personal and scholarly conduct. Academic dishonesty including, but not limited to, cheating, collusion (working with anyone else to produce work for which you take credit without the professor's permission), utilizing resources such as books and notes for a test without the professor's permission, and plagiarism is considered a serious offense and may result in disciplinary actions including:
- A grade of 0 for the test or assignment
- A semester grade of F for the course
- Administrative withdrawal from the course
- Academic suspension
- Notation of the student's transcript of "Academic Dishonesty."

Class Attendance
Regular attendance is necessary for satisfactory achievement. Therefore, it is the responsibility of the student to attend class in accordance with requirements of the course as established by the instructor.

Students will be excused from class without penalty when either representing the college in an approved activity or having an approved reason for not attending. Reasons for absences must be approved by the instructor of the course. These exceptions do not relieve the student of the responsibility of making up the missed work as designated by the instructor concerned.

Students who enroll in one or more college-preparatory course(s) because of TSI deficiency will be administratively withdrawn from all classes if the course in which they are excessively absent is their only preparatory course. For a student enrolled in more than one preparatory course, the student may be dropped from only the course affected by absences.

Any student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day, provided that proper notification of the absence is given to the instructor of the course missed. The student should notify the instructor within the first fifteen (15) days of the semester that he or she intends to be absent on the specified holy day.

Cell Phones and Other Electronic Devices Procedure:
Cell phones and electronic devices in the classroom create a distraction for both students and faculty. Cell phones are also considered suspicious during test taking. Therefore, Frank Phillips College outlines the procedure for handling cell phone usage in a classroom as follows:

1. First Offense: the student will be warned verbally by the instructor to turn off the cell phone or electronic device or by appropriate administrative personnel at distance sites. The instructor will make a notation of the infraction.
2. Second Offense: the student will be asked to leave the class period for the day and will receive zeroes for any work done in class on that day; a student receiving instruction through remote connection at an off-campus site will be required to attend the class face to face in Borger from this class date forward.
3. Third Offense: the student will be administratively withdrawn from the class in which the infraction occurred and will receive no refund for the class.

Students should leave the college's main number with an appropriate contact in case of an emergency.
 Borger: (806) 457-4200, ext. 0 or 886-5047 after hours
 Perryton: (806) 648-1450

Grievance Policy
If you have a dispute concerning your grade or policies in this class, it is your responsibility to FIRST contact the instructor, either by e-mail or in person, to discuss the matter. Should things remain unresolved after this initial contact, please follow the procedures described in the Academic Policies section of the Frank Phillips College Catalog. In the vast majority of cases, the matter can be resolved at the instructor/student level, and learning to communicate your concerns in a civilized manner is part of the college experience.

Important Information
Frank Phillips College is a Microsoft Office Campus. You must submit your electronic assignments in Microsoft Office programs only. If you do not have Microsoft Office, you may use one of the computer lab sites on campus for your class work.

Scans/Or Core Competencies That Will Be Addressed in the Class

Resources:
Allocates Time
Allocates Money
Allocates Material & Facility Resources

Information:
Acquires & Evaluates Information
Organizes & Maintains Information
Uses Computers to Process Information

Interpersonal:
Participates as a Member of a Team
Teaches Others
Serves Clients/Customers
Exercises Leadership
Negotiates to Arrive at a Decision
Works with Cultural Diversity

Thinking Skills:
Creative Thinking
Decision Making
Problem Solving
Seeing Things in the Mind's Eye
Knowing How to Learn
Reasoning

Technology:
Selects Technology
Applies Technology
Maintains & Troubleshoots Technology

Systems:
Understands Systems
Monitors & Corrects Performance
Improves & Designs Systems

Basic Skills:
Reading
Writing
Arithmetic
Mathematics
Listening& Speaking

Personal Qualities:
Responsibility
Self-Esteem
Sociability
Self-Management
Integrity/Honesty

Tutorials: By appointment.

Conference Periods: 1st, 4th, 8th
School Phone Number: (806) 273-1029
Cell: (806) 330-2262 Call or text before 2200
Email address: thomas.hodge@borgerisd.net or
                          thomashodge43@gmail.com