

South Plains College
Common Course Syllabus: MATH 1316
Revised December 2022

Department: Mathematics, Engineering, and Computer Science

Discipline: Mathematics

Course Number: MATH 1316

Course Title: Plane Trigonometry

Available Formats: conventional, hybrid, internet, and ITV

Campuses: Levelland, Downtown Center, and Dual Credit

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.

Prerequisite: Minimum score of 350 on the TSIA1, minimum score of 950 on the TSIA2, a diagnostic score of 6 on the TSIA2, TSI-exempt status, or a successful completion with a grade of 'C' or better in MATH 1314.

Credit: 3 **Lecture:** 3 **Lab:** 0

Textbook: *Trigonometry*, Dugopolski, 2019, 5th Edition, Prentice Hall/Pearson Education

Supplies: Please see the instructor's course information sheet for specific supplies.

This course partially satisfies a Core Curriculum Requirement: Mathematics Foundational Component Area (020)

Core Curriculum Objectives addressed:

- **Communications skills**—to include effective written, oral and visual communication
- **Critical thinking skills**—to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
- **Empirical and quantitative competency skills**—to manipulate and analyze numerical data or observable facts resulting in informed conclusions

Student Learning Outcomes: Upon completion of this course and receiving a passing grade, the student will be able to:

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.

Student Learning Outcomes Assessment: A pre- and post-test questions will be used to determine the extent of improvement that the students have gained during the semester

Course Evaluation: There will be departmental final exam questions given by all instructors.

Attendance/Student Engagement Policy: Attendance and engagement are the most critical activities for success in this course. The instructor maintains records of the student's attendance and submission of assignments throughout the semester. The student is expected to attend at least eighty percent (80%) of the **total** class meetings **and** submit at least eighty percent (80%) of the **total** class assignments to have the best chance of success. If the student fails to meet these minimum requirements, the instructor may remove the student from the class with an X, upon their discretion, to help the student from harming their GPA. If the student can not receive an X, the instructor will assign an F.

Plagiarism violations include, but are not limited to, the following:

1. Turning in a paper that has been purchased, borrowed, or downloaded from another student, an online term paper site, or a mail order term paper mill;
2. Cutting and pasting together information from books, articles, other papers, or online sites without providing proper documentation;
3. Using direct quotations (three or more words) from a source without showing them to be direct quotations and citing them; or
4. Missing in-text citations.

Cheating violations include, but are not limited to, the following:

1. Obtaining an examination by stealing or collusion;
2. Discovering the content of an examination before it is given;
3. Using an unauthorized source of information (notes, textbook, text messaging, internet, apps) during an examination, quiz, or homework assignment;
4. Entering an office or building to obtain an unfair advantage;
5. Taking an examination for another;
6. Altering grade records;
7. Copying another's work during an examination or on a homework assignment;
8. Rewriting another student's work in Peer Editing so that the writing is no longer the original student's;
9. Taking pictures of a test, test answers, or someone else's paper.

Student Code of Conduct Policy: Any successful learning experience requires mutual respect from the student and the instructor. Neither the instructor nor the student should be subject to others' rude, disruptive, intimidating, aggressive, or demeaning behavior. Student conduct that disrupts the learning process or is deemed disrespectful or threatening shall not be tolerated and may lead to disciplinary action and/or removal from class.

South Plains College policies concerning diversity, disabilities, non-discrimination, Title IX Pregnancy Accommodations, and Campus Concealed Carry Statements can be found here: <https://www.southplainscollege.edu/syllabusstatements/>.

South Plains College policies, return to campus plan, and protocols regarding COVID-19 can be found here: <https://www.southplainscollege.edu/emergency/covid19-faq.php>.

SPC Bookstore Price Match Guarantee Policy: If you find a lower price on a textbook, the South Plains College bookstore will match that price. The difference will be given to the

student on a bookstore gift certificate! The gift certificate can be spent on anything in the store.

If students have already purchased textbooks and then find a better price later, the South Plains College bookstore will price match through the first week of the semester. The student must have a copy of the receipt and the book has to be in stock at the competition at the time of the price match.

The South Plains College bookstore will happily price match BN.com & books on Amazon noted as *ships from and sold by Amazon.com*. Online marketplaces such as *Other Sellers* on Amazon, Amazon's Warehouse Deals, *fulfilled by Amazon*, BN.com Marketplace, and peer-to-peer pricing are not eligible. They will price match the exact textbook, in the same edition and format, including all accompanying materials, like workbooks and CDs.

A textbook is only eligible for price match if it is in stock on a competitor's website at time of the price match request. Additional membership discounts and offers cannot be applied to the student's refund.

Price matching is only available on in-store purchases. Digital books, access codes sold via publisher sites, rentals and special orders are not eligible. Only one price match per title per customer is allowed.

Note: The instructor reserves the right to modify the course syllabus and policies, as well as notify students of any changes, at any point during the semester.

written assignments in the event that Blackboard or Gradescope are down. You may also email incomplete parts of assignments in order to get feedback on how to proceed. All emails should include your course and section number in either the subject or the first paragraph of the body of the email.

Students who wish to set an appointment for a meeting may use the MS Bookings link in the “Instructor Information” section of the blackboard course.

Class Attendance: Attendance to in-person class meetings is required. In order to count towards completion, students must attend at least 80% of class meetings **and** turn in 80% of required course work. Failure to meet one or both of these standards may result in the student being dropped from the course with an X. If a student cannot be given an X, they will be given an F.

If you wish to drop the course on your own (which gives a mark of W) see the drop materials in the “Syllabus & Schedule” section of Blackboard. The last day to drop the course is Thursday, June 29 (6/29).

As this class is a “flipped” course environment, students are expected to arrive to class having

1. worked through the course materials (textbook, videos, etc.) and
2. attempted many of the problems.

The class time will be spent

1. answering student questions over the material
2. working problems from the homework
3. turning in assignments and quizzes.

IT IS THE RESPONSIBILITY OF THE STUDENT TO BE FAMILIAR WITH SOUTH PLAINS COLLEGE POLICIES. BELOW ARE ITEMS SPECIFIC TO THIS COURSE

Assessment: Grading will be done according to the standard 10 percent scale (i.e. 100% - 90% is an A, etc.) with assignments weighted according to the following:

Participation:	25%
Exams	25% each
Final Exam	25%

Assignments: Assignments consist of any notes over the relevant lesson as well as the worked problems assigned. Exam corrections may be given as an assignment if necessary. Notes are to be well organized and neatly written, and any work on problems should be neatly written and organized as well. Any use of tables, graphs, or charts should be carefully drawn as well.

Quizzes: Quizzes will be given at the end of class as often as necessary to assess student understanding over the material that has been covered up to that point. Quizzes cannot be made up and are not dropped.

Exams: There will be two midterm exams and a comprehensive final exam given during this course. During exams cell phones, laptops, and other such objects should be turned off and put away. Math solving apps (e.g. “PhotoMath,” “Mathway”) are strictly prohibited. There is no tolerance for violations. Students who break these rules will be asked to leave the exam (counted as an absence) and receive a zero for their exam grade. *Makeup exams are not given.*

The final is a required part of the course. Failure to take the final exam results in an automatic F. The Final Exam will be held in this classroom on Friday, July 7 from 4 pm

Extra Credit: Extra Credit assignments are not offered in this course. Occasionally bonus problems may appear on exams.

Calculus 1

Date	Topics of Discussion	Assignments Due (assignments are due by 11 pm, quizzes are due at the end of class)
Monday 6/5/2023	Lesson 1: Limits Lesson 2: Continuity	
Tuesday 6/6/2023	Lesson 3: Definition of Derivative Lesson 4: Derivative Rules	Assignments 1 & 2 Quiz 1
Wednesday 6/7/2023	Lesson 5: Rates of Change	Assignments 3 & 4 Quiz 2
Thursday 6/8/2023	Lesson 6: Trigonometric Derivatives Lesson 7: Chain Rule	Assignment 5 Quiz3
Monday 6/12/2023	Lesson 8: Inverse Functions	Assignments 6 & 7 Quiz 4
Tuesday 6/13/2023	Lesson 9: Implicit Differentiation	Assignments 8 & 9
Wednesday 6/14/2023	Exam 1 (lessons 1 through 9) Exam begins at 4 pm and ends at 5:55 pm	
Thursday 6/15/2023	Lesson 10: Exponential and Logarithmic Derivatives	
Monday 6/19/2023	Lesson 11: Related Rates	Assignment 10 Quiz 5
Tuesday 6/20/2023	Lesson 12: Curve Sketching	Assignment 11 Quiz 6
Wednesday 6/21/2023	Lesson 13: Optimization	Assignment 12 Quiz 7
Thursday 6/22/2023	Lesson 14: Antiderivatives	Assignment 13 Quiz 8
Monday 6/26/2023	Lesson 15: Definite Integrals and the Fundamental Theorem of Calculus	Assignments 14 & 15
Tuesday 6/27/2023	Exam 2 (lessons 10 - 15) Exam begins at 4 pm and ends at 5:55 pm.	
Wednesday 6/28/2023	Lesson 16: Integration by Substitution	
Thursday 6/29/2023	Lesson 17: Exponential and Logarithmic Integrals	Assignment 16 Quiz 9
Monday 7/3/2023	Lesson 18: Inverse Trigonometric Integrals	Assignment 17 Quiz 10
Tuesday 7/4/2023	INDEPENDENCE DAY	
Wednesday 7/5/2023	Lesson 19: Area Between Curves	Assignments 18 & 19 Quiz 11
Thursday 7/6/2023	Review for Final Exam	
Friday 7/7/2023	Final Exam The final exam will begin at 4 pm. Finals may be handed out until 7 pm, and will be collected at 7:55 pm	