

South Plains College
Common Course Syllabus: MATH 1316
Revised August 2021

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, Reese, 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.

COVID Syllabus Statement: It is the policy of South Plains College that as a condition of on-campus enrollment, all students are required to engage in safe behaviors to avoid the spread of COVID-19 in the SPC community. There will be no requirement for face coverings at any location on any South Plains College campus or classroom. Faculty, staff, or students may continue to wear a mask voluntarily, but there will be no requirements for face coverings in any circumstance. Students who believe they have been exposed or may be COVID-19 positive, must contact Health Services, DeEtte Edens, BSN, RN at (806) 716-2376 or dedens@southplainscollege.edu.

Student Code of Conduct Policy: Any successful learning experience requires mutual respect on the part of the student and the instructor. Neither instructor nor student should be subject to others' behavior that is rude, disruptive, intimidating, aggressive, or demeaning. 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.

Diversity Statement: In this class, the teacher will establish and support an environment that values and nurtures individual and group differences and encourages engagement and interaction. Understanding and respecting multiple experiences and perspectives will serve to challenge and stimulate all of us to learn about others, about the larger world and about ourselves. By promoting diversity and intellectual exchange, we will not only mirror society as it is, but also model society as it should and can be.

Disability Statement: Students with disabilities, including but not limited to physical, psychiatric, or learning disabilities, who wish to request accommodations in this class should notify the Disability Services Office early in the semester so that the appropriate arrangements may be made. In accordance with federal law, a student requesting accommodations must provide acceptable documentation of his/her disability to the Disability Services Office. For more information, call or visit the Disability Services Office at Levelland (Student Health & Wellness Office) 806-716-2577, Reese Center (Building 8) 806-716-4675, or Plainview Center (Main Office) 806-716-4302 or 806-296-9611.

Nondiscrimination Policy: South Plains College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. The following person has been designated to handle inquiries regarding the non-discrimination policies: Vice President for Student Affairs, South Plains College, 1401 College Avenue, Box 5, Levelland, TX 79336. Phone number 806-716-2360.

Title IX Pregnancy Accommodations Statement: If you are pregnant, or have given birth within six months, Under Title IX you have a right to reasonable accommodations to help continue your education. To [activate](#) accommodations you must submit a Title IX pregnancy accommodations request, along with specific medical documentation, to the Director of Health and Wellness. Once approved, notification will be sent to the student and instructors. It is the student's responsibility to work with the instructor to arrange accommodations. Contact the Director of Health and Wellness at 806-716-2362 or [email rcanon@southplainscollege.edu](mailto:rcanon@southplainscollege.edu) for assistance.

Campus Concealed Carry: Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in South Plains College buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and South Plains College policy, license holders may not carry a concealed handgun in restricted locations. For a list of locations and Frequently Asked Questions, please refer to the Campus Carry page at: <http://www.southplainscollege.edu/campuscarry.php>
Pursuant to PC 46.035, the open carrying of handguns is prohibited on all South Plains College campuses. Report violations to the College Police Department at 806-716-2396 or 9-1-1.

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.

Instructor's Syllabus: MATH 1316 Spring 2022

Section: 442: MWF, 10:00-10:50am, ITV/TC205

Instructor: Jerod Clopton

Office: Levelland Campus, Math and Engineering Building, M102

Telephone: (806) 716-2738

Email: jclopton@southplainscollege.edu

Office Hours:

- Monday: 1:00-3:30pm
- Tuesday: 11:30am-12:00pm, 2:30-3:00pm
- Wednesday: 1:00-3:30pm
- Tuesdays 12:00-1:00pm, 2:30-3:00pm
- Fridays: 11:00am-12:00pm
- And by appointment.

Email Policy: All students at South Plains College are assigned a standardized SPC email. Log into portal.office.com to access to you SPC email account. The instructor will only acknowledge, respond, and receive emails to your assigned email address.

- My expected response time to received emails is as follows:
 - For emails sent on Monday-Thursday, I will attempt to respond within 24 hours.
 - For emails sent on Friday-Sunday, I may not respond until the following Monday.
- I will not be checking / responding to messages sent through the Blackboard messaging system.

Flipped Classroom: This is a flipped classroom. Simply put this means that you will be introduced to course content outside of the classroom and then practice the material during class. To be successful in this class you will need to prepare for each class by watching the lecture videos, taking notes on the lecture videos, and begin working on the homework. Class time will be spent addressing any questions that you have over the lecture, subject material, or homework.

Blackboard: Blackboard is the online course management system that will be utilized for this course. This course is supplemented online, so all access to course information and your instructor is through the Internet. This course syllabus, as well as all course materials can be accessed through Blackboard. Login at <https://southplainscollege.blackboard.com/>. The user name and password should be the same as the MySPC and SPC email.

User name: first initial, last name, and last 4 digits of the Student ID

Password: Original CampusConnect Pin No. (found on SPC acceptance letter)

Supplies:

- Pencils, erasers, 8.5-inch x 11-inch notebook paper, graph paper, scientific calculator (graphing calculators or calculators on cellphones or apps are not allowed).
- Access to the textbook for this course is required, as homework problems will come from the textbook.
- Access to a printer and scanner, or scanning app such as CamScanner, OneDrive, Scannable, etc., in order to scan your notes, assignments, and quizzes, into PDF files.

Attendance: A record of your attendance will be kept. As stated in the course syllabus, you will be required to attend 80% of the class meetings. If you do not attend class for any reason, you will be counted absent. Should you arrive more than 15 minutes after class has started, you will be counted absent. Tardies count as 0.5 absences. Arriving between the start of class and 15 minutes after class has started counts as a tardy. Leaving before the class is dismissed counts as a tardy. Should class be canceled, either by South Plains College or the instructor, the student will be responsible for any lecture material presented on Blackboard.

Lecture Videos and Notes: Lecture videos and notes are made available to you in Blackboard. Before each class meeting, you are expected to have watched the lecture videos and worked through the aligned notes for that day's lesson. You will be required to submit your completed notes on a weekly basis.

Homework: For each lesson you will have an assigned set of homework problems from the textbook. Homework will be submitted as a single PDF file through Gradescope, (a link to Gradescope is available in Blackboard for each homework assignment.) No late assignments will be accepted. The purpose of homework is to provide you with the opportunity to practice and master the material of this course. Be sure to follow the following homework requirements.

- Work must be done on 8.5 x 11-inch notebook paper and written in pencil.
- The first page of your work should have your name, class, and assignment title. Your name should be written on each page of your work.
- Work should be done in a neat and legible manner.
 - Work must be done in either a single column or double column down the page.
- All work must be shown, and the work must justify the answer.
- All answers must be either circled or boxed in.
- When submitting work, scan all pages into a single PDF file.

Quizzes: Quizzes will be given, at any time, throughout this course. Questions for the quizzes will be taken from, or be similar to, the questions from the homework assignments. Quizzes must be taken in pencil. No make-up quizzes will be given.

Exams: Exams will be given during the scheduled class times on the dates stated on the course calendar. Exams must be taken in pencil. Once you begin the exam, you may not leave the room until the exam is submitted for grading. No make-up exams will be given.

Final Exam: The comprehensive final exam will be given on Monday, May 9th, from 10:00am-12:00pm. The final exam will cover all material from the class. No make-up final will be given.

Grading Policy:

Daily Work (notes, homework, quizzes, labs, etc.)	16%
Exams (4 total)	16% each (total of 64%)
Final Exam	20%

Grading Scale: Your final average in the course will determine the letter grade posted on your transcript. This grade is determined by the following scale: A (90-100%), B (80-89%), C (70-79%), D (60-69%), F (0-59%).

Make-Up Work: Make-up work will be given at the discretion of the instructor. If you are not going to be in class, you need to contact the instructor before that class period and have proper documentation that gives reason why you will be absent. You will need to make arrangements with the instructor to take the quiz or exam before the next class period.

Resources:

- Please come to me first with any questions that you have about this class. Feel free to come by my office during my office hours or email me.
- **SPC Tutoring:** Tutoring is FREE for all currently enrolled students. Make an appointment or drop-in for help at any SPC location or online! Visit the link below to learn more about how to book an appointment, view the tutoring schedule, and view tutoring locations.
 - <http://www.southplainscollege.edu/exploreprograms/artsandsciences/teacheredtutoring.php>
- **Tutor.com:** You also have 180 FREE minutes of tutoring with Tutor.com each week, and your hours reset every Monday morning. Log into Blackboard, click on the tools option from the left-hand menu bar. Click on the Tutor.com link and you will automatically be logged in for free tutoring. You may access tutor.com tutors during the following times:
 - Monday – Thursday: 8pm-8am
 - 6pm Friday – 8am Monday morning

Disclaimer: The instructor reserves the right to alter any class policies/dates as deemed necessary by the instructor and will announce any changes in class or in Blackboard.

MATH 1316 Tentative Course Schedule for Spring 2022

Week	Date	Topic
1	Mon, Jan 17	No Class (Martin Luther King Holiday)
	Wed, Jan 19	Introduction
	Fri, Jan 21	1.1 – Angles and Degree Measure
2	Mon, Jan 24	1.2 – Radian Measure, Arc Length, Area
	Wed, Jan 26	1.4 – The Trig Functions
	Fri, Jan 28	
3	Mon, Jan 31	1.5 – Right Triangle Trigonometry
	Wed, Feb 2	1.6 – Fundamental Identities and Reference Angles
	Fri, Jan 4	
4	Mon, Feb 7	1.3 – Angular and Linear Velocity
	Wed, Feb 9	
	Fri, Feb 11	Review for Exam 1
5	Mon, Feb 14	Exam 1
	Wed, Feb 16	3.1 – Basic Identities
	Fri, Feb 18	
6	Mon, Feb 21	3.2 – Verifying Identities
	Wed, Feb 23	3.3 – Sum and Difference Identities for Cosine
	Fri, Feb 25	
7	Mon, Feb 28	3.4 – Sum and Difference Identities for Sine and Tangent
	Wed, Mar 2	3.5 – Double and Half Angle Identities
	Fri, Mar 4	
8	Mon, Mar 7	3.6 – Product and Sum Identities
	Wed, Mar 9	Review for Exam 2
	Fri, Mar 11	Exam 2
Spring Break – March 14 through March 18		
9	Mon, Mar 21	2.1 – The Unit Circle and Graphing 2.2 – The General Sine Wave
	Wed, Mar 23	2.3 – Graphs of Secant and Cosecant Functions
	Fri, Mar 25	
10	Mon, Mar 28	2.4 – Graphs of Tangent and Cotangent Functions
	Wed, Mar 30	4.2 – Basic Sine, Cosine, and Tangent Equations
	Fri, Apr 1	
11	Mon, Apr 4	4.3 – Equations Involving Compositions
	Wed, Apr 6	4.4 – Trig Equations of Quadratic Type
	Fri, Apr 8	Review for Exam 3
12	Mon, Apr 11	Exam 3
	Wed, Apr 13	5.1 – The Law of Sines
	Fri, Apr 15	No Class (Easter Holiday)
13	Mon, Apr 18	5.2 – The Law of Cosines
	Wed, Apr 20	5.3 – Area of a Triangle
	Fri, Apr 22	
14	Mon, Apr 25	5.4 – Vectors
	Wed, Apr 27	5.5 – Application of Vectors
	Thu, Apr 28	<i>Last day to Spring courses</i>
	Fri, Apr 29	Review for Exam 4

15	Mon, May 2	Exam 4
	Wed, May 4	Review for Final Exam
	Fri, May 6	Review for Final Exam
16	Mon, May 9	Final Exam (20%): 10:00 – 12:00