

South Plains College
Common Course Syllabus: MATH 1316
Revised December 2019

Department: Mathematics, Engineering, and Computer Science

Discipline: Mathematics

Course Number: MATH 1316

Course Title: Plane Trigonometry

Available Formats: conventional 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 TSIA, 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 Policy: Attendance and effort are the most important activities for success in this course. Records of your attendance are maintained throughout the semester. Five (5) absences, *for any reason*, are allotted to the student for the semester. Tardies count as one-half (1/2) of an absence. Tardies will be applied for consistently being late to class, as deemed by the instructor and leaving class early. If this number is exceeded, the instructor has the right to drop you with a grade of F or an X, depending on their discretion.

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 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 cgilster@southplainscollege.edu](mailto:cgilster@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.

Math 1316.002 Trigonometry
TR 8:00 – 9:15 Math 123 Spring 2020

Instructor: Mrs. Jennifer K Bartlett
Office: Levelland Campus, Math 113
Office Phone: 806-716-2664

Email: jkbartlett@southplainscollege.edu
Office Hours: MW 8:30-10:00, TR 9:15-10:00
 F 8:30-12:00, or by appointment

Course Materials:

- Textbook: *Trigonometry*, by Dugopolski, 5th Edition, Pearson Education ISBN-13:978-0-13-5207338.
- Calculator: You may use a plain scientific calculator on some homework, quizzes, and exams. You may NOT use a graphing calculator or a calculator on a cell phone on any of the quizzes, exams, or the final exam. You are required to bring your calculator to EVERY class.
- You will need a 3-ring binder (1.5 inch), 4 dividers (Notes, Homework, Quizzes & Labs, Reviews & Exams), notebook paper, graph paper, hole punch, stapler, pencils, and erasers.

Homework: Homework will be assigned at each class meeting. The homework is not a tool by which I torture you, but rather an opportunity for you to practice the skills presented in class which you will be responsible to demonstrate on a quiz the following class period. If you are interested in passing the class, you will need to do well on the quizzes. To do well on the quizzes, you will need to complete the homework. No late assignments will be accepted. You should show all work when doing homework. Simply writing the problem and the answer is not “doing homework.” Using a solutions manual or an app that shows you the steps, and copying them down is NOT “doing homework.” Remember your effort is key to your success. You have to focus your effort on being able to complete the problems on a quiz/exam without any outside resources. You are responsible for the following homework requirements. Any homework that does not follow the homework requirements will be recorded as a grade of a zero.

Homework Requirements:

- 1) It must be turned in at the beginning of the class period. Late homework will not be accepted. Late is defined to be: anything turned in after the start of the class period.
- 2) Homework must be written in pencil on white 8.5 x 11 inch paper. It must be neat and legible. I will be the judge as to what is neat. Just because you can read it doesn't mean that I can interpret it. Only memorization work done on the assignment cover sheet will be graded. All other work must be done on your own paper. The assignment sheet should be stapled to the front of your homework assignment.
- 3) If you have more than one page to turn in, the pages must be stapled together. Multiple pages that are not stapled or held together by a paperclip, folded corner, spit, gum, etc. will not be accepted and be recorded with a grade of zero. You must staple multiple pages together.
- 4) Homework must be presented in an orderly manner with the problem running in a single or double column down the page. No more than double column work will be graded.
- 5) All final answers must be circled to receive credit. Any algebraic answer not circled or “boxed” in will not be graded. Pictures/graphs do not need to be circled or boxed.

Notebook: You will be required to keep all class materials (notes, handouts, homework, quizzes, exams, etc.) organized in a notebook (3-ring binder). These materials are subject to be turned in for grading at any time. Please make certain all materials accompany you to each class meeting. The notebook will have 4 dividers labeled the following: Notes, Homework & Labs, Quizzes, and Reviews & Exams. You will keep the corresponding material under the matching divider.

Quizzes: Short, in-class quizzes that will be given regularly will have problems selected from, or closely related to, your homework. Most, if not all, quizzes will be pop-quizzes so you will need to be prepared every class period. Students arriving late may be denied the chance to take a quiz, if there is one that day. Quizzes must be taken in pencil.

Exams: Exams must be taken in pencil. Student may not leave the examination room for any reason without turning in their exam for grading. The tentative exam dates are as follows on the course schedule below.

Final: The comprehensive final will be given on Tuesday, May 5th from 8:00 – 10:00 as directed by the official South Plains College Schedule. No make-up final will be given. The final will cover all material covered in-class.

Make-up: Make-up work is given at the discretion of the instructor. NO make-up quizzes or tests are given without prior notification AND proper documentation. If are absent from class, have given prior notification and proper documentation of your absence, you MUST make arrangements to take the quiz or test BEFORE the next class period. Students who do not take quizzes or exams in-class, early or late, forfeit the right to attempt any extra credit on that quiz or exam.

Grading Policy:

Daily Work (HW, quizzes, labs, etc.)	16%
Exams (4 total)	16% each (total of 64%)
Comprehensive Final	20%

Grading Scale:

90-100%	A
80-89%	B
70-79%	C
60-69%	D
Below 60%	F

This course and its grade will be recorded on your official transcript.
 Grades will be posted on Blackboard during the semester usually after exams.

Math 1316.002 Tentative Schedule Spring 2020

Week	Date	Topic	Assignment Due
1	Jan 14	Syllabus <i>Assignment 1.1: Arithmetic and Algebra Refresher</i>	
	Jan 16	<i>Assignment 1.2: Angles in Degrees & Radians</i>	1.1
2	Jan 20	No Classes – MLK	
	Jan 21	<i>Assignment 1.3: Trigonometric Functions</i>	1.2
	Jan 23	<i>Assignment 1.4: Cofunctions, DMS, and More Trigonometric Functions</i>	1.3
3	Jan 28	<i>Assignment 1.5: Arc Length, Area of a Sector, Linear & Angular Velocity</i>	1.4
	Jan 30	<i>Assignment 1.6: Solving Right Triangles</i>	1.5
4	Feb 4	Unit 1 Exam (16%)	1.6, Review
	Feb 6	No Class – Bartlett at a Conference	
5	Feb 11	<i>Assignment 2.1: Identities & Verifications</i>	2.0
	Feb 13	<i>Assignment 2.2: Verifications Part 2</i>	2.1
6	Feb 18	<i>Assignment 2.3: Verifications Part 3</i>	2.2
	Feb 20	<i>Assignment 2.4: Sum & Difference Identities</i>	2.3
7	Feb 25	<i>Assignment 2.5: Double Angle Identities</i>	2.4
	Feb 27	<i>Assignment 2.6: Half Angle Identities</i>	2.5
8	March 3	<i>Assignment 2.7: Identities & Verifications Summary</i>	2.6
	March 5	Unit 2 Exam (16%)	2.7, Review
9	March 10	<i>Assignment 3.1: Graphing Sine and Cosine</i>	
	March 12	<i>Assignment 3.2: Graphing Secant, Cosecant, Tangent and Cotangent</i>	3.1
	March 16-20	No School – Spring Break	
10	March 24	<i>Assignment 3.3: Inverse Trig Functions and Solving Basic Trig Equations</i>	3.2
	March 26	<i>Assignment 3.4: Solving Trig Equations Involving Compositions and Quadratic in Type</i>	3.3
11	March 31	<i>Assignment 3.5: Solving Advanced Trig Equations</i>	3.4
	April 2	<i>Assignment 3.6: Graphing and Equations Summary</i>	3.5
12	April 7	Unit 3 Exam (16%)	3.6, Review
	April 9	<i>Assignment 4.1: Law of Sines</i>	
	April 13	No School – Easter Holiday	
13	April 14	<i>Assignment 4.2: Law of Cosines</i>	4.1
	April 16	<i>Assignment 4.3: An Introduction to Vectors</i>	4.2
14	April 21	<i>Assignment 4.4: Vector Applications</i>	4.3
	April 23	Unit 4 Exam (16%) Last Day to Drop a Class at SPC	4.4, Review
15	April 28	Final Exam Review	Final Review
	April 30	Final Exam Review	Final Review
16	May 5	Final Exam (20%) 8:00-10:00am	