



MATH1316 – Trigonometry Section 601

Room: Lubbock Downtown Center, B011
MTWR: 4:00 PM – 5:55 PM

Contact

Instructor: Mr. Vargas

Email: evargas@southplainscollege.edu

Phone: (806) 716-4673

Supplies

- Pencils, erasers, paper.
- Colored Pens/Pencils for Notes ~ **Recommended.**
- Non-graphing calculator.
- *Algebra and Trigonometry* by OpenStax - <https://openstax.org/details/books/algebra-and-trigonometry-2e>

Grading

Grading Scale:	A: 90-100	Pass	Weights:	Worksheets	15%
	B: 80-89	Pass		Exams (3)	20% each
	C: 70-79	Pass		Final Exam	25%
	D: 60-69	Depends		Total	100%
	F: 0-59	Fail			

Worksheets

Assigned through Blackboard. Gives examples covered in class.

- Examples are used in lectures and may be on Exams.
- Students are required to turn in hand-written solutions for full credit.
- Worksheets are due at the time of each Exam.
- Worksheets will not be accepted after their due dates.

Exam

Assigned **in-class**. Exams cover material from Lectures and Worksheet Examples.

- Full class time
- Covers Conceptual and Application problems.
 - Conceptual: True/False and Fill in the Blank
 - Application: Show ALL work relating to simplifying, solving, and graphing.

Final Exam

Assigned at **End of Semester**. This exam is comprehensive, covering all material during the semester.

- **Failure to attempt the Final Exam will result in a failing grade for the course regardless of current letter grade.**
- Replaces **one (1) missed Exam OR lowest Exam score.**
- **Final Exam is comprehensive.**

Class Policies and Information



Attendance Policy

The student is expected to **submit at least eighty percent (80%)** of the class assignments to have the best chance of success. If the student fails to meet these minimum requirements, the instructor can remove the student from the class.



South Plains College Email Policy

The instructor will respond to all emails **within 24 hours** during the week day. Emails sent after 5:00 PM on Fridays may not be answered until the following Monday morning.



Additional Support

Online demo videos and a free textbook is available!

- Videos are provided to the student via Blackboard located in each week's folder.
- A free, [online textbook](#), is available for online viewing or digital download.

SPC also offers **free tutoring!** This information is located [here](#).



Drop/Withdrawal

Students should submit a [Student Initiated Drop Form](#) online to drop from the course. If the student wishes to withdraw from this or more courses, the student needs to contact the Advising Office.

COVID Syllabus Statement

If you are experiencing any of the following symptoms, please do not attend class and either seek medical attention or test for COVID-19.

- Cough, shortness of breath, difficulty breathing
- Fever or chills
- Muscles or body aches
- Vomiting or diarrhea
- New loss of taste and smell



Please also notify DeEtte Edens, BSN, RN, Associate Director of Health & Wellness, at dedens@southplainscollege.edu or 806-716-2376. Proof of a positive test is required. A home test is sufficient but students must submit a photo of the positive result. The date of test must be written on the test result and an ID included in the photo. If tested elsewhere (clinic, pharmacy, etc.), please submit a copy of the doctor's note or email notification. Results may be emailed to DeEtte Edens, BSN, RN at dedens@southplainscollege.edu.

A student is clear to return to class without further assessment from DeEtte Edens, BSN, RN if they have completed the 5-day isolation period, symptoms have improved, and they are without fever for 24 hours without the use of fever-reducing medication. Students must communicate with DeEtte Edens, BSN, RN prior to their return date if still symptomatic at the end of the 5-day isolation.

Course Calendar

		First Half of Class	Second Half of Class
Week 1	June 5 th	<ul style="list-style-type: none"> ◦ Cartesian Coordinate System ◦ Distance and Midpoint Formula 	<ul style="list-style-type: none"> ◦ Pythagorean Theorem ◦ Center, Radius, and Graphing Circles
	June 6 th	<ul style="list-style-type: none"> ◦ Angles and Degree Measures ◦ Radian Measures, Arch Length, and Area 	<ul style="list-style-type: none"> ◦ Linear/Angular Velocities
	June 7 th	<ul style="list-style-type: none"> ◦ Trigonometric Functions ◦ Right Triangle Trigonometry 	<ul style="list-style-type: none"> ◦ Fundamental Identity and Reference Angles
	June 8 th	<ul style="list-style-type: none"> ◦ Unit Circle and Graphing ◦ General Sine Waves 	<ul style="list-style-type: none"> ◦ Graphs of Secant
Week 2	June 12 th	<ul style="list-style-type: none"> ◦ Graphs of Cosecant ◦ Graphs of Tangent and Cotangent 	<ul style="list-style-type: none"> ◦ Combining Functions
	June 13 th	Exam #1 Review	
	June 14 th	Exam #1; Worksheet #1 Due	
	June 15 th	<ul style="list-style-type: none"> ◦ Basic Identities ◦ Verifying Identities 	<ul style="list-style-type: none"> ◦ Cosine Sum and Difference Identities
Week 3	June 19 th	<ul style="list-style-type: none"> ◦ Sine/Tangent Sum and Difference Identities ◦ Double and Half Angle Identities 	<ul style="list-style-type: none"> ◦ Product and Sum Identities
	June 20 th	<ul style="list-style-type: none"> ◦ Inverse Trigonometric Functions ◦ Basic Sine, Cosine, and Tangent Equations 	<ul style="list-style-type: none"> ◦ Equation Compositions ◦ Quadratic Trigonometric Equations
	June 21 st	Exam #2 Review	
	June 22 nd	Exam #2; Worksheet #2 Due	
Week 4	June 26 th	<ul style="list-style-type: none"> ◦ Law of Sines and Cosines 	<ul style="list-style-type: none"> ◦ Area of Triangles
	June 27 th	<ul style="list-style-type: none"> ◦ Vectors 	<ul style="list-style-type: none"> ◦ Vector Applications
	June 28 th	<ul style="list-style-type: none"> ◦ Complex Numbers 	<ul style="list-style-type: none"> ◦ Trigonometric Complex Number Form
	June 29 th	<ul style="list-style-type: none"> ◦ Polar Equations 	<ul style="list-style-type: none"> ◦ Parametric Equations
Week 5	July 3 rd	Exam #3 Review	
	July 4 th	Campus Closed – No School	
	July 5 th	Exam #3; Worksheet #3 Due	
	July 6 th	Final Exam Review	
	July 7 th	Final Exam	

**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.