

MATH 1316 – Fall 2025

Trigonometry

Section #	Meeting Times (all MWF)	Instructor	Office Hours & Location
.001	12-1250 SCI 3.270	Dr. Adannah Duruoha Adannah.Duruoha@utdallas.edu	MWF 1-150 FO 2.110
.002	1-150 GR 3.420	Nambinintsoa Andrianandrasana Nambinintsoa.Andrianandrasana@UTDallas.edu	W 2-330 FO 1.204E
.003	9-950 JSOM 2.103		
.004	10-1050 SCI 2.225	Dr. Julie Sutton JMSutton@utdallas.edu	MW 12-1250 FN 3.308A and on TEAMS by appointment

Course Pre-requisites, Co-Prerequisites and/or Other Restrictions:

A score of 35% on ALEKS Math Placement Test, a grade of at least C-, or concurrent enrollment in MATH 1314.

Course Description:

Trigonometry is a field of mathematics in which the geometric properties of the Unit Circle, as well as the angles and edges of triangles, are used to measure lengths. Real-world problems involving trigonometry are common in engineering, physics, construction, and design.

Intermediate Algebra skills are assumed for those enrolled in MATH 1316.

MATH 1316 cannot be used to satisfy major requirements for majors in the School of Natural Sciences and Mathematics, Management, or for the School of Engineering and Computer Science.

Main topics to be covered (Chapter.Section of textbook):

1. Graphs and Functions (Selected portions of Chapter 2, 4.1)
2. Unit Circle Trigonometry/Radian and Degree Measure (5.1, 5.2, 5.4)
3. Graphs of the Trigonometric Functions (5.4-5.6)
4. Inverse Trigonometric Functions (5.7)
5. Solving Trigonometric Equations and Using Formulas (6.1-6.3, 6.5,6.7)
6. Fundamental Identities of Trigonometry (6.1)
7. Polar Graphing and Coordinates, Vectors (8.1, 8.4)

The work you submit in ALEKS is 20% of your grade; this is not an accurate indicator of your overall performance in MATH 1316. You should use the grade breakdown to the right to calculate your grade.

Required Materials:

Access to ALEKS and Miller, Algebra, and Trigonometry online
MATH 1316 Course Notes Pack
High-speed internet and a computer with a webcam and microphone may be needed for this course.

A writeable screen (iPad, surface, etc is encouraged but not required)

You should bring the following to lecture:

- Non-programmable Calculator (TI-30X)
- Lecture Notes
- Scratch Paper

You will work on problems during the lecture, so please be on time.

Textbook: MILLER ALEKS 360 OLA
ALG TRGNMTRY 2 2023
9781264248667

Grading Scale:

$97 \leq x \leq 100$	A+
$93 \leq x < 97$	A
$90 \leq x < 93$	A-
$87 \leq x < 90$	B+
$83 \leq x < 87$	B
$80 \leq x < 83$	B-
$77 \leq x < 80$	C+
$73 \leq x < 77$	C
$70 \leq x < 73$	C-
$67 \leq x < 70$	D+
$63 \leq x < 67$	D
$60 \leq x < 63$	D-
$60 < x$	F

Grading Policy:

Type	Number	% of Final Grade
Exams	3	60%
Quizzes	5*	15%
Homework	TBD	10%
ALEKS Pie		10%
Attendance		5%
Total:		100%

*One (1) quiz grade will be dropped.

Student Learning Outcomes/Objectives:

1. Students will master techniques of computing trigonometric functions and their inverses.
2. Students will develop an understanding of how models of real-world situations are constructed using trigonometric functions.
3. Students will gain familiarity with the algebraic expertise necessary to derive and validate trigonometric identities.

Academic Calendar:

Description	Dates
First Day of Class	Monday, August 25
Labor Day (no Class)	Monday, September 1
Census Day	Wednesday, September 10
Exam I	Tuesday – Saturday 09/30-10/04 **
Mid-Term Grades	Saturday, October 18
Drop Date	Monday, November 10
Exam II	Tuesday – Saturday 11/18-11/22
Thanksgiving/Fall Break	11/24-11/28
Last Day of Class	Tuesday, December 9
Exam III	Thursday-Saturday 12/11-12/13

See <http://go.utdallas.edu/syllabus-policies> for additional syllabus policies and University regulations.

Assignment Descriptions:

Exams:

- There will be three (3) exams. All exams will be administered in the testing center; these exams will be on paper.
- No blue book or scratch paper is needed.
- You should bring your CometCard and a calculator to each exam.
- You will have 2.5 hours for exams 1 & 2 and three for exam 3.
- Only exam #3 will be cumulative.
- Non-programmable scientific calculators will be allowed during exams, but no other electronic devices (including cell phones) will be allowed.
- Your lowest exam score will be 18% of your grade, and the highest will be 22%. The remaining exam will be weighted 20%.
- No exam grades will be dropped, and makeup exams are not offered except in extenuating circumstances and University-mandated reasons.
- Exams are closed notes/books.

The tentative dates for exams are in the table on page 2. The class will not meet on those days to help you find the necessary time for the exam.

Algebra Skill/Pie Chart:

Trigonometry cannot be understood without a working knowledge of the basics of Algebra. In ALEKS there is a pie chart pre-loaded with 408 skills to help you succeed in Trigonometry. **The first time you log in to ALEKS, you'll be asked to complete a short pre-assessment.** While this assessment doesn't directly impact your grade, it can potentially give you credit for mastering some of these skills. Do your best. If you successfully master at least 387 of the skills, you will earn full credit for this portion of your grade. If you master fewer than 387, your grade will be calculated using the ratio # Skills Mastered/387. Please note that this part of your grade will not be fully calculated until the course ends.

Quizzes:

- The first quiz of the semester is over the syllabus and administered via eLearning.
- The remaining quizzes will occur on paper (in the testing center).
- You will have 60 minutes to complete each quiz.
- No makeup quizzes will be scheduled unless there is an approved accommodation (for university travel, military travel, etc.) or in documented extenuating circumstances.
- At least one quiz grade will be dropped.
- All quizzes are closed notes/books.
- No blue book or scratch paper is needed.
- You should bring your own calculator to the testing center as well as your CometCard.

Quiz #	Dates	Type of Quiz
1	09/03-09/08	eLearning
2	09/17-09/19	PAPER**
3	10/15-10/17	PAPER**
4	10/29-10/31	PAPER**
5	12/03-12/05	PAPER**

** PAPER quizzes require a Testing Center appointment made at least 48 hours in advance.

The Testing Center:

Your paper quizzes and exams will be administered in the testing center, located in the SP2 building across Waterview Parkway from Residence Halls NW and N. You must register for a seat using RegisterBlast (www.RegisterBlast.com/utdallas) at least 48 hours in advance. **The registration system closes 48 hours before an assignment begins, and you cannot make an appointment after that time.**

Students who do not make an appointment for an assignment administered in the testing center, or who do not show up, within the allowed/scheduled timeframe will earn a 0 on the missed assignment.

Calculators are no longer loaned to students.

The testing center requires you to keep track of your time when taking an assessment. Exceeding the given time limit may result in a referral to the Office of Community Standards and Conduct for cheating.

All student guidelines can be found here: <https://ets.utdallas.edu/testing-center/students/> . Please review these prior to your first quiz. You are expected to follow all Testing Center guidelines.

Homework:

Homework will be assigned through the online portal ALEKS. You will be given at least one (1) week to complete any online homework assignments.

How to access ALEKS

1. Click on the link in eLearning for ALEKS via the 701 section of MATH 1316.
2. Make sure that your account email is your UTDallas email address.
3. Either start a free trial, enter the code you purchased from the bookstore, or provide a Credit Card and purchase the access.
 - a. Note that you can purchase access in several increments; the course is 16 weeks in length, and it is cheaper to buy all at once.
4. You **MUST** access ALEKS via eLearning. Otherwise, your grades will not sync appropriately, and your instructors will not be hand-entering grades.

Course and Instructor Policies:

Make-up Quizzes and Exams: Makeup quizzes and exams are not offered except for accepted University reasons (University Travel, religious observations, active military duty, etc) that have been submitted to your instructor at least 5 business days prior to the missed assignment, or in documented extenuating circumstances.

Exams and quizzes administered will be returned approximately ten days after the assignment window closes. The papers will be returned to you in the section in which you are enrolled. Should you feel that there was an error in grading, you have 7 days from the date the papers were returned to the class the first time to request a regrade.

Note that papers that have been altered from their original submission may not be eligible for re-grade. To request a regrade, you should email your professor and make arrangements to resubmit your exam or quiz packet. The faculty reserves the right to re-grade your entire exam or quiz submission. Exam resubmissions may not be made using a photo or scan of the paper(s); the original packet must be returned to the faculty in its original state.

Calculators: Only non-programmable scientific calculators (TI-30XIIS is suggested) are permitted on exams or quizzes. You may not share a calculator with another student. Cell phones (or other electronic devices) may **not** be used on exams or quizzes. **The Testing Center no longer loans calculators.**

E-Mail Correspondence: When emailing your instructor, you must use your official UTDallas email account; email originating from another account (such as Gmail) will not be acknowledged in accordance with UTDallas policies. Please include the following in the subject of your email: Course number and a basic overview of your purpose for emailing. For example:

MATH 1316.004 ALEKS Problem #24, Section 3.4

In the body of your email, include all information necessary to address your concern. If you are emailing for help with a homework problem from ALEKS, please attach screenshots as necessary.

Your instructors generally respond to emails on weekdays from 8 am-5 pm. Responses over the weekend are limited. Student emails will be answered within 3 working days under normal circumstances.

Class Attendance

The University's attendance policy requires individual faculty to set their course attendance requirements. Regular and punctual class attendance is expected. Students who fail to attend class regularly invite scholastic difficulty.

In MATH 1316, your attendance is 5% of your grade. Your grade for attendance will drop by 5 points for every class missed over three. This means that your first three (3) absences are "free". This includes illness, travel, work, etc. Should you miss class for a religious holiday, University Travel, or Military deployment, you should let your instructor know ASAP.

Class Participation

Regular class participation is expected regardless of course modality. Class participation is documented by faculty. Successful participation is defined as consistently adhering to University requirements, as presented in this syllabus. Failure to comply with these University requirements is a violation of the [Student Code of Conduct](#).

Dr. Sutton will livestream her course (10-1050 MWF) using the 701 section of TEAMS. This recording will be available for all enrolled students. Note that on Worksheet days, the recording may be of minimal use to those not present in class.

Each recording will begin with an "announcement" portion. You should make a point to look at this video for pertinent class information if you are not in class.

Class Recordings

The instructor may record meetings of this course. Any recordings will be available to all students registered for this class as they are intended to supplement the classroom experience. Students are expected to follow appropriate University policies and maintain the security of passwords used to access recorded lectures. Unless the Office of Student AccessAbility has approved the student to record the instruction, students are expressly prohibited from recording any part of this course. Recordings may not be published, reproduced, or shared with those not in the class or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. If the instructor or a UTD school/department/office plans any other uses for the recordings, consent of the students identifiable in the recordings is required prior to such use unless an exception is allowed by law. Failure to comply with these University requirements is a violation of the [Student Code of Conduct](#).

Additional instructions for Teams are available here;

- [How to Access a Course Meeting in Teams](#) (NEW)

Class Materials

The Instructor may provide class materials that will be made available to all students registered for this class as they are intended to supplement the classroom experience. These materials may be downloaded during the course; however, these materials are for registered students' use only. Classroom materials

may not be reproduced or shared with those not in class or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. Failure to comply with these University requirements is a violation of the [Student Code of Conduct](#).

Technical Requirements

In addition to a confident computer and Internet literacy level, certain minimum technical requirements must be met to enable a successful learning experience. Please review the important technical requirements on [the Getting Started with eLearning](#) webpage. You must have a webcam and microphone on a laptop capable of running Chrome.

Course Access and Navigation

This course can be accessed using your UT Dallas NetID account on the [eLearning](#) website.

Please see the course access and navigation section of the webpage for more information.

To become familiar with the eLearning tool, please see the [Student eLearning Tutorials](#) webpage.

UT Dallas provides eLearning technical support 24 hours a day, 7 days a week. The eLearning Support Center includes a toll-free telephone number for immediate assistance (1-866-588-3192), email request service, and an online chat service.

Communication

This course utilizes online tools for interaction and communication. Some external communication tools, such as regular email and a web conferencing tool, may also be used during the semester. For more details, please visit [the Student eLearning Tutorials](#) webpage for video demonstrations on eLearning tools.

Student emails will be answered within 3 working days under normal circumstances.

Server Unavailability or Other Technical Difficulties

The University is committed to providing a reliable learning management system to all users. However, in the event of any unexpected server outage or any unusual technical difficulty which prevents students from completing a time-sensitive assessment activity, the instructor will provide an appropriate accommodation based on the situation. Students should immediately report any problems to the instructor and also contact the online eLearning Help Desk. The instructor and the eLearning Help Desk will work with the student to resolve any issues at the earliest possible time.

Comet Creed:

This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:

“As a Comet, I pledge honesty, integrity, and service in all that I do.”

Texas Senate Bill 17, the recent law that prohibits diversity, equity, and inclusion programs and activities at public universities in Texas, does not in any way apply to academic course instruction. Students should

not feel the need to self-censor or limit their participation in academic courses pertaining to topics of race and racism, structural inequality, LGBTQ+ issues, diversity, equity, and inclusion, and related topics.

My pledge to you, my student:

The goals of this course can only be accomplished in a setting of mutual respect. Although the study of mathematics rarely lends itself to too much controversy, we must still provide a safe environment that is conducive to learning. I look forward to getting to know each of you both as individuals and as a learning community.

Campus Carry:

For further information regarding Campus Carry, please go to <https://www.utdallas.edu/campuscarry/>

UT Dallas Syllabus Policies and Procedures:

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus.

Please go to <http://go.utdallas.edu/syllabus-policies> for these policies.

Students with Disabilities:

The University of Texas at Dallas is committed to providing reasonable accommodations for all persons with disabilities. The syllabus is available in alternate formats upon request. If you are seeking classroom accommodations under the Americans with Disabilities Act (2008), you are required to register with the [AccessAbility Resource Center \(ARC\)](#), located in the Administration Building, Suite 2.224. They can be reached by [email](#), calling 972-883-2098, or at their [website](#). To receive academic accommodations for this class, please register and request services by completing the Request for Services form with the proper documentation and meeting with the Director of ARC at the beginning of the semester.

Academic Support

Peer Tutoring (free!) MC 1.304 offers math and science tutoring assistance for many of the historically challenging undergraduate courses at UT Dallas. The sessions are designed to address students' individual questions and needs; however, the tutors do not provide answers for homework, quizzes, or exams. Peer Tutoring services include drop-in tutoring for most 1000 and 2000-level courses, one-on-one appointments for a limited number of 3000 and 4000-level courses, and weekly reviews, the timings of which vary by semester.

<https://oisds.utdallas.edu/syllabus-policies/#academic-support-resources>

<https://studentsuccess.utdallas.edu/programs/peer-tutoring/>

Approximate Course Schedule for MATH 1316 Fall 2025

Week #	Date	Day of Week	Topics	
1	25	W	Syllabus/Communication	
	27		1.1 Distance Formula/Pythagorean Theorem & Midpoint 1.2 Graphs of eq in 2 Variables	
	29	F	Circle Activity WS01	
2	1	M	Labor Day NO CLASS	
	3	W	1.3 Functions and their Graphs	Quiz 01 - eLearning
	5	F	1.4 Properties of Functions (even/odd from graph, from formula, piecewise, maximum/min)	
3	8	M	Graphing Activity WS02	Quiz 01 - eLearning
	10	W	1.5 Library of Functions (Basic) Horizontal/Vertical Translations (WS03)	
	12	F	Transformation Activity WS03	
4	15	M	1.7 1-1 Functions, inverse functions	
	17	W	Arc Length Activity WS04	Quiz 02 Testing Center
	19	F	Angles and their Measure Activity WS05	
5	22	M	2.1 Angles and Their Measure	
	24	W	Developing the Unit Circle WS06	
	26	F	Trigonometric Functions Preface WS07	
6	29	M	Review	
	1	W	EXAM 01 09/30- 10/04 NO CLASS	Exam 01 Testing Center
	3	F		
7	6	M	2.2 Trigonometric Functions	
	8	W	2.3 Properties of the Trigonometric Functions	
	10	F	Sine, Cosine and Trig Identities Activity WS08	
8	13	M	Graphs of The Sine and Cosine Functions Activity WS09 (NO IN PERSON CLASS)	
	15	W	2.5 Graphs of the Tangent, Cotangent, Cosecant and Secant Functions	Quiz 03 Testing Center
	17	F	2.5 Graphs of the Tangent, Cotangent, Cosecant and Secant Functions	
9	20	M	Phase Shift Activity WS10	

	22	W	Phase Shift and Sinusoidal Curve Fitting WS10	
	24	F	Chapter 2 Wrap Up	
10	27	M	3.1 Inverse Trigonometric Functions	
	29	W	3.1 Inverse Trigonometric Functions (continued)	Quiz 04 Testing Center
	31	F	3.2 Inverse Trigonometric Functions (continued)	
11	3	M	Inverse trigonometric Function Activity WS11	
	5	W	3.3 Trigonometric Equations	
	7	F	3.3 Trigonometric Equations (continued)	
12	10	M	Trigonometric Equation Activity WS12	
	12	W	3.4 Trigonometric Identities	
	14	F	3.4 Trigonometric Identities (continued)	
13	17	M	Review	
	19	W	Exam 02 11/18 through 11/22 NO CLASS	Exam 02 Testing Center
	21	F		
TH	24-28	M-F	THANKSGIVING BREAK	
15	1	M	3.5 Sum and Difference Formulas	
	3	W	3.5 Sum and Difference Formulas	
	5	F	3.6 Double & Half Angle Formulas	
	8	M	Review	
FEx	11-13	W	Exam 03 12/11-12/13 Testing Center	Exam 03 Testing Center

These descriptions and timelines are subject to change at the discretion of the Professor.