



Math 1060/106-001: Trigonometry

Fall Semester 2021

M, W, F, 10:45 am – 11:35 am, Classroom: ST 104]

Instructor: Sung Chan Choi

Email: choi@math.utah.edu

Office Hours: M, W 9:30 am- 10:30 am

Office Location: JWB 113

These office hours will be held in person, in my office JWB 113. If you would like to meet with me over Zoom, please let me know and we can schedule a time that works for you and me.

Required Materials

The textbook for this course is available at no cost over Canvas.

Course Description

This course covers trigonometric functions, inverses, equations and identities with applications; introduction to vectors.

Course Outcomes

1. Understand trigonometric function definitions in the context of right triangles and on the unit circle.
2. Graph basic trigonometric functions and those with basic transformations. Be able to write an equation given a graph. Identify amplitude, periods, phase shifts, and asymptotes from graphic and algebraic representations of functions.
3. Represent and solve physical world problems using trigonometric functions.
4. Use trigonometric inverses correctly, understanding the domain/range restrictions.
5. Verify trigonometric identities, using proper logic and use trigonometric identities to evaluate expressions.
6. Solve trigonometric equations.
7. Solve for all measurements in any triangle, using the Pythagorean Theorem, trigonometric functions, the Law of Sines, and Law of Cosines in a variety of contexts and applications.
8. Be able to convert to and from rectangular and trigonometric forms of complex numbers and polar and rectangular forms of coordinates.
9. Graph complex numbers in a plane, perform operations on such numbers and interpret this graphically, and use DeMoivre's theorem to find roots and powers of complex numbers.
10. Understand geometry and arithmetic operations with vectors and use vectors in application problems.
11. Give an equation or verbal description for a conic given a graph of the conic; given an equation of a conic, identify the conic and be able to graph it and describe its attributes.

Teaching and Learning Methods

This section is an in-person lecture. New concepts will be introduced in class, where we will also practice various types of problems. Quizzes and exams will be administered in-class.

University Policies

1. ***The Americans with Disabilities Act.*** The University of Utah seeks to provide equal access to its programs, services, and activities for people with disabilities. If you will need accommodations in this class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, (801) 581-5020. CDS will work with you and the instructor to make arrangements for accommodations. All written information in this course can be made available in an alternative format with prior notification to the Center for Disability Services.

- ***If in-class attendance is a necessary component of the course for pedagogical reasons (e.g., laboratories, studios, or artistic training), state it explicitly.***

Use this standard language: “Given the nature of this course, attendance is required and adjustments cannot be granted to allow non-attendance. However, if you need to seek an ADA accommodation to request an exception to this attendance policy due to a disability, please contact the [Center for Disability and Access \(CDA\)](#). CDA will work with us to determine what, if any, ADA accommodations are reasonable and appropriate

2. ***University Safety Statement.*** The University of Utah values the safety of all campus community members. To report suspicious activity or to request a courtesy escort, call campus police at 801-585-COPS (801-585-2677). You will receive important emergency alerts and safety messages regarding campus safety via text message. For more information regarding safety and to view available training resources, including helpful videos, visit safeu.utah.edu.
3. ***Addressing Sexual Misconduct.*** Title IX makes it clear that violence and harassment based on sex and gender (which includes sexual orientation and gender identity/expression) is a civil rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, color, religion, age, status as a person with a disability, veteran’s status or genetic information. If you or someone you know has been harassed or assaulted, you are encouraged to report it to the Title IX Coordinator in the Office of Equal Opportunity and Affirmative Action, 135 Park Building, 801-581-8365, or the Office of the Dean of Students, 270 Union Building, 801-581-7066. For support and confidential consultation, contact the Center for Student Wellness, 426 SSB, 801-581-7776. To report to the police, contact the Department of Public Safety, 801-585-2677(COPS).

4. COVID-19 Fall 2021 Statement

University leadership has urged all faculty, students, and staff to **model the vaccination, testing, and masking behaviors** we want to see in our campus community.

These include:

- Vaccination
- Masking indoors
- If unvaccinated, getting weekly asymptomatic coronavirus testing

Vaccination

- **Get a COVID-19 vaccination** if you have not already done so. Vaccination is proving highly effective in preventing severe COVID-19 symptoms, hospitalization and death from coronavirus. Vaccination is the single best way to stop this COVID resurgence in its tracks.
- Many in the campus community already have gotten vaccinated:
 - More than 80% of U. employees
 - Over 70% of U. students
- Visit <http://mychart.med.utah.edu/>, <http://alert.utah.edu/covid/>, or <http://vaccines.gov/> to schedule your vaccination.

Masking

- While masks are no longer required outside of Health Sciences facilities, UTA buses and campus shuttles, **CDC guidelines now call for everyone to wear face masks indoors.**
 - Check the CDC website periodically for masking updates—
<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/fully-vaccinated-guidance.html>
 - Treat masks like seasonal clothing (i.e. during community surges in COVID transmission, masks are strongly encouraged indoors and in close groups outside).

Testing

- **If you are not yet vaccinated, get weekly asymptomatic coronavirus tests.** This is a helpful way to protect yourself and those around you because asymptomatic individuals can unknowingly spread the coronavirus to others.
 - Asymptomatic testing centers are open and convenient:
 - Online scheduling
 - Saliva test (no nasal swabs)
 - Free to all students returning to campus (required for students in University housing)
 - Results often within 24 hours
 - Visit <http://alert.utah.edu/covid/testing>
- **Remember: Students must self-report if they test positive for COVID-19** via this website: <https://coronavirus.utah.edu/>.

Course Policies

Attendance & Punctuality:

Attendance at lectures is not a component of your grade, but should be considered necessary to make adequate progress in the course. Attendance on quiz/exam days is mandatory.

Electronic Devices in Class:

It is common courtesy to keep electronic devices put away during class, unless using such devices to participate in class through note-taking, for example. Quizzes and exams will be submitted through scanning using a smartphone. Otherwise, technology is not allowed on quizzes and exams. If you do not have a scanning device or forget it on an assessment day, that assessment may be turned in on the provided paper.

Communication:

- All course materials, such as lecture slides, assignments, solutions, grades, etc. will be posted on the Course Canvas site. Class announcements will be done via Canvas. You will be responsible for any information contained in them as well as the information announced in class.
- It is also your responsibility to check your Canvas messages regularly. There will be occasions during the semester that we may need to reach out to you individually (e.g. regarding a grade or assignment) and it is in your best interest to respond promptly.
- Feel free to contact me by email or Canvas message. I will do my best to answer emails promptly. I would like to encourage you to email me only if it is something personal that requires individual attention, if instead you have questions about logistics of the class, course material and assignments, and anything else your classmates may wonder as well, please post a question on the Discussions Board instead. This way the information is shared quickly to the entire class, and each of you can benefit from seeing other classmates' questions.
- I will always do my best to ensure the communication relevant to the course is clear and transparent, it is your responsibility as well to keep yourself updated by regularly checking: the announcements on Canvas, your Umail, the posts on the Discussions Board, and pay attention to the announcements given in class and Discussion Section.
- Students are expected to log in and check Canvas every day for posted announcements and assignments. Students are also strongly advised to set up notifications for Canvas so they do not miss any important notifications.

Exam Dates: The three midterms will occur during usual class time on **September 17, October 29, and December 3**. The final exam is departmental on **December 15, 1:00-3:00 pm**. The *only* possible conflicts with the final exam schedule occur if you are also taking Business Core 3010 or 3020 or French 1010, 1020, 2010, or 2020. If you are in one of these classes, work out final exam arrangements with your two instructors within the first two weeks of the semester.

Official Drop/Withdraw Dates:

The last day to drop classes is Friday, **September 3**;

The last day to withdraw from this class is Friday, **October 22**.

Please check the academic calendar for more information pertaining to dropping and withdrawing from a course. Withdrawing from a course and other matters of registration are the student's responsibility.

Holidays: There will be no class on **September 6, October 10-17, and November 25-26**.

Week #	Start	Finish	Schedule Notes	Sections	Assessments
1	8/23	8/27		1.1, 1.2, 2.1	Quiz1-2
2	8/30	9/3		2.2, 2.3, 2.5	Quiz 3-5
3	9/6	9/10	no class 9/6	3.1-3.4	Quiz 6-8
4	9/13	9/17		1.3, 2.4, 4.1	Quiz 9, Exam 1
5	9/20	9/24		4.2-4.4	Quiz 10-11
6	9/27	10/1		5.1-5.3	Quiz 12-14
7	10/4	10/8		6.1-6.2	Quiz 15-17
8	10/18	10/22		7.1-7.3	Quiz 17-19
9	10/25	10/29		catchup	Quiz 20, Exam 2
10	11/1	11/5		Conics	Quiz 21-23
11	11/8	11/12		8.1-8.3	Quiz 24-26
12	11/15	11/19		8.4-8.5	Quiz 27-29
13	11/22	11/26	no class 11/25-26	9.1-9.3	Quiz 30-32
14	11/29	12/3		catchup	Quiz 33, Exam 3
15	12/6	12/9	no class 12/10	Review	Quiz 34
	12/15		1:00-3:00 pm		Final Exam

Grading Policy (Evaluation Methods & Criteria)

Semester letter grades will be converted from numerical semester scores (N) as follows:

100 ≥ N ≥ 93: A	93 > N ≥ 90: A-	
90 > N ≥ 87: B+	87 > N ≥ 83: B	83 > N ≥ 80: B-
80 > N ≥ 77: C+	77 > N ≥ 73: C	73 > N ≥ 70: C-
70 > N ≥ 67: D+	67 > N ≥ 63: D	63 > N ≥ 60: D-
60 > N : E		

The numerical grade consists of several components:

- 15% of final grade: Homework. Homework is delivered online through the IMathAS system. These homeworks will be linked through Canvas and are fully online (no file uploads needed). If you think you have caught a mistake in the online homeworks, email me with an explanation of what you think is wrong.
- 15% of final grade: Daily Quizzes. There will be daily quizzes delivered in class. The six lowest quiz scores will be dropped. Quizzes may not be retaken.
- 45% of final grade: Midterms. There will be three midterm exams which are longer than quizzes. These will also be delivered in class. The lowest midterm exam score may be dropped and replaced by a higher final exam grade. Each midterm is worth 15%. If you do not take an exam, that score will not be dropped - it's best for you in the course to attempt all the assigned work.
- 25% of final grade: Final Exam. The final exam is a comprehensive exam covering all topics in the course. The final exam grade will replace the lowest midterm score.

It is the student's responsibility to ensure the accuracy of all recorded homework, quizzes, online assignments, and exam grades. Also you should keep as record all your graded assignments. If you see any error in your grades on Canvas, reach out to the instructor as soon as possible, or at the latest within two weeks from when the assignment was returned.

DISCLAIMER:

Syllabus subject to change: This syllabus is meant to serve as an outline and guide for our course. Please note that I may modify it with reasonable notice to you. I may also modify the Course Schedule to accommodate the needs of our class. Any changes will be announced in class and posted on Canvas.