

Math 1060: Trigonometry (Fall 2019)

Time and Location: Tuesday and Thursday 9:10-10:30 am, BU C 210

Course Information

- Instructor: Kiersten Utsey (Office: LCB 318)
 - Email Address: utsey@math.utah.edu
 - Office Hours: TBD; or by appointment
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Course Goals: Improve quantitative reasoning and prepare for future math learning in calculus, linear algebra, and discrete mathematics.

Topic to be covered: Trigonometry, Topics in Analytic Geometry, and the Complex Numbers.

Expected Learning Outcomes:

1. Understand trigonometric function definitions in the context of the 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 from graphic and algebraic representations of functions.
 3. Solve applications problems using principles in trigonometry.
 4. Represent and interpret real world contexts situations using radian trigonometric functions.
 5. Use trigonometric inverses correctly, understanding the domain/range restrictions.
 6. Verify trigonometric identities, using proper logic and use trigonometric identities to evaluate expressions.
 7. Solve trigonometric equations.
 8. Solve for all measurements in any triangle, using the Pythagorean Theorem, trigonometric functions, the Law of Sines, and the Law of Cosines in a variety of contexts and applications.
 9. Be able to convert to and from rectangular and trigonometric-form coordinates (polar coordinates).
 10. Graph complex numbers in a plane, perform operations on such numbers, and use DeMoivre's theorem to find roots and powers of complex numbers.
 11. Understand geometry and arithmetic operations with vectors and use vectors in application problems.
 12. Use parametric equations in application problems and be able to convert between parametric and non-parametric representation of functions.
 13. Understand and explain arithmetic with complex numbers using trigonometry.
 14. Write an equation for a conic given a graph of the conic; given an equation of a conic, recognize the conic and be able to graph it.
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Textbook: The text is available on the course canvas page. You may print or download any portion you would like, or may view it entirely online. Homework is also entirely available on the course Canvas page.

Calculators: Calculators will be useful for homework, but will not be permitted on quizzes or exams.

Homework: All homework is to be completed on MyOpenMath. The link to homework assignments and due dates can be found on the course canvas page. **Late homework will not be accepted.** You will be given ample time to do your assignments, you may ask me questions or you may work with others on assignments. You have unlimited attempts for each prompt. Please note, homework is a substantial part of your grade for the course (15%), it is to your benefit to make success on the assignments a priority – partial credit is better than no credit!

Quizzes: There will be approximately 10 quizzes (one each Thursday that does not have an exam). You must be in attendance to take the quiz, however the three lowest quiz scores will be dropped. **There will be no make-up quizzes.**

Attendance: Like any college course, attendance is not “mandatory”. Please note, however, that concepts will be thoroughly explained and reviewed in class. Students who regularly attend score on average 30% higher on exams than those who do not.

Midterms:
Thursday, October 3
Thursday, November 21

Final exam:
MONDAY, December 9, 1:00 – 3:00 pm
(see <https://registrar.utah.edu/academic-calendars/final-exams-fall.php>). **The location will be announced in class.**

There are no “make-up” exams. Students who miss an exam or quiz will receive a “0” on the missed exam or quiz. The lowest Midterm may be replaced with the Final Exam score, if the Final Exam score is higher.

Grading Policy:

- Homework (15%)
 - Quizzes (15%)
 - Midterm 1 (20%)
 - Midterm 2 (20%)
 - Final Exam (30%)
 - Note: The final will replace the lowest midterm score if the final is higher than the midterm.
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Semester letter grades will be converted from numerical semester scores (N) as follows:

$100 > N \geq 93\%$: A	$83 > N \geq 80\%$: B–	$70 > N \geq 68\%$: D+
$93 > N \geq 90\%$: A–	$80 > N \geq 78\%$: C+	$68 > N \geq 63\%$: D
$90 > N \geq 88\%$: B+	$78 > N \geq 73\%$: C	$63 > N \geq 60\%$: D–
$88 > N \geq 83\%$: B	$73 > N \geq 70\%$: C–	$60 > N$: E

Important Dates:

The last day to drop classes is Friday, August 30; the last day to withdraw from this class is Friday, October 18. 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 students responsibility.

There will be no class:

Monday – Friday, October 7 – 11 (Fall Break)

Thursday – Friday, November 28 – 29 (Thanksgiving Break)

Responsibilities: All students are expected to maintain adult and professional behavior in the classroom. Please respect your classmates by not engaging in idle chatter, using your cell phone, or otherwise creating distractions. More importantly, students are prohibited by the Student Code from cheating, as well as committing acts of fraud, vandalism, or theft.

Part of my responsibilities is maintaining a classroom conducive to learning and enforcing responsible classroom behavior. This instructor will take disciplinary actions, beginning with verbal warnings and ultimately progressing to dismissal from this class and a failing grade. Students have the right to appeal such action to the Student Behavior Committee.

Extra Help: You may find that you need some extra help beyond what the class can provide. The math department has a free drop-in tutoring center located in the T. Benny Rushing Mathematics Center. Information about the center can be found at:

<http://www.math.utah.edu/ugrad/tutoring.html>

Math Department Video Lectures:

Video lectures are available at: <http://www.math.utah.edu/lectures/math1060New.html>

ADA Statement: 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 the 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 alternative format with prior notification to the Center for Disability Services.

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.

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, veterans 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).

Wellness Statement: Personal concerns such as stress, anxiety, relationship difficulties, depression, cross-cultural differences, etc., can interfere with a students ability to succeed and thrive at the University of Utah. For helpful resources contact the Center for Student Wellness at www.wellness.utah.edu or 801-581-7776.

Disclaimer: This syllabus has been created as a preview to the course and I have tried to make it as accurate as possible. However, I reserve the right to make reasonable changes to the above policies as I deem appropriate.