Trigonometry 1060–3, Summer 2018
MWF 8:45–9:45 a.m., WEB L110

Instructor: Anna Schoening
Contact: anna@math.utah.edu
Office Hours: Tuesdays 8:45 – 9:45 am and Wednesdays 11:30 am–12:30 pm in JWB 121
  Also available after most classes for 10-15 minutes (flag me after class)
  or by appointment

Course Goal: Improve quantitative reasoning and prepare for future math learning in calculus, linear algebra, and discrete mathematics.

Topics 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 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.

Text: *PRECALCULUS,* 9th Edition, 2013 Larson. The University of Utah has negotiated special pricing for the text and WebAssign;
- • For $75 you may purchase the online version of the text with Enhanced WebAssign. This price covers both 1050 and 1060.
- • OPTION: if you would like, you may also purchase a loose-leaf version of the text for $40.
  The text may be purchased at http://www.cengagebrain.com/course/2609573

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

Homework: All homework is to be completed on WebAssign. Due dates for homework assignments can also be found on WebAssign. *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 may submit up to 10 answers 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 quizzes given at the end of class on Fridays during non-exam weeks. You must be in attendance to take the quiz, however the three lowest quiz scores will be dropped. No other quizzes will be dropped for any reason.

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

Important dates:
Class will meet every Monday, Wednesday, and Friday, however, *there will be no class:*

Monday, May 28 (Memorial Day)
Wednesday, July 4 (Independence Day)

MIDTERMS:	**FINAL:**
Friday, June 15	**Thursday, August 2, 7:30-9:30 a.m. (see:**
Friday, July 20	http://registrar.utah.edu/academic-calendars/final-exams-summer.php)
	The exam will be in our usual classroom.

There are no "make-up" exams. Students who miss an exam or quiz will receive a "0" on the missed exam or quiz.

Semester Grades will be determined using the following weights:
15% homework
15% quizzes (*There will be a quiz every Friday except midterm days, the three lowest quiz scores will be dropped.*)
20% 1st midterm
20% 2nd midterm
30% Final exam
Note: No exam or homework scores will be dropped.

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

$100 \geq N \geq 93$: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

Mathematics Tutoring Center: Drop in, sit down, and if you have a question, someone will come by who can help you. There are also study areas free of tutors, a computer lab, group study rooms available through reservations, and group tutoring sessions that can be arranged to meet at a regular time. Located on 1st Floor of JWB or LCB. Open 8am-8pm MTWH; 8am-4pm F.

Video Lectures: Video lectures are available at: http://www.math.utah.edu/lectures/

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 & Access (CDA, formerly CDS). To do so, contact them at 801-581-5020 (V/TDD) to set-up an appointment. CDA will work with you and me to make arrangements for accommodations. All information in this course can be made available in alternative format with prior notification to CDA.

Additional Policies:
- Cell phones should be put away during class. If you are using a computer to take notes, it must be flat. (No computers with open screens). If you need to use your phone during class, please leave the classroom.
- If you miss a homework assignment or exam due to an unforeseeable emergency, contact me as soon as possible with documentation of what happened. Depending on the situation, this homework assignment or exam may be waived.
- You may take an alternate midterm if you talk to me about it first and provide documentation of the emergent, extenuating circumstances that make it necessary. It is 100% your responsibility to communicate with me as soon as is possible, before the exam occurs (or as soon as possible). I reserve the right to make alternate exams more difficult than the scheduled exam.
- If you have questions about any exam/quiz/homework grade, or you want to appeal the grading of the exam/quiz/homework, you must bring it to me within one week of the return of the exam. I'm happy to look over your appeal and/or questions and give my feedback in order to benefit your learning.
- If you cheat on any homework, quiz or exam, you will automatically get a zero for that grade. Depending on the severity of the cheating, the consequences may be more severe, and I may decide to fail you from the class. Please note that the use of a cell phone, smart watch, or any other electronic internet device (or even just pulling it out of your pocket) is considered cheating and cause for receiving an automatic zero on any exam or quiz. Also, if you exhibit any other behaviors that are unethical, like offering me a bribe to give you a better grade (even if you later claim you were joking), I will report your behavior to the Dean of Students.
- I reserve the right to change my policies stated in this syllabus at some point in the semester. If I do make a change to a policy, I will announce it in class and post it in writing on Canvas.