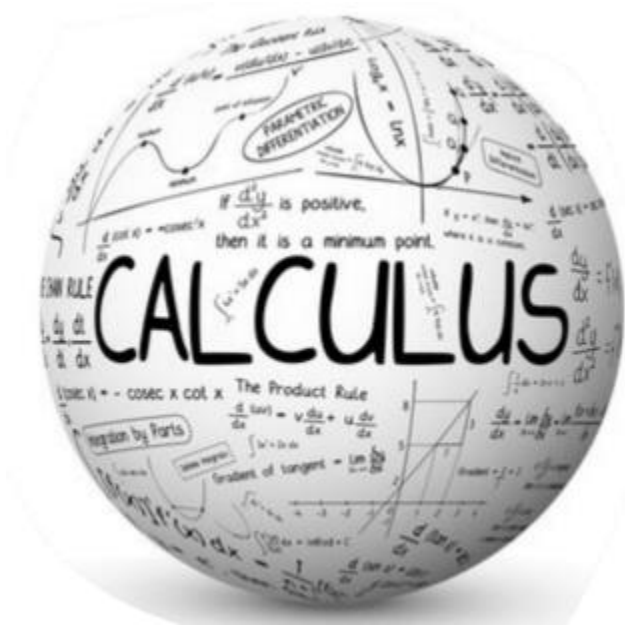


Basic Course Information

Semester:	Winter 2023	Instructor Name:	Jill Nelipovich
Course # and Title:	Trigonometry	Email:	jill.nelipovich@imperial.edu
CRN #:	15026	Webpage (optional):	Canvas
Classroom:	M,R,F 2721 T,W RT-OL (link in canvas)	Office #:	2768
Class Dates:	01/03/23 – 02/03/23	Office Hours:	By appt
Class Days:	M-F	Office Phone #:	760-355-6297
Class Times:	12:30 – 2:40	Emergency Contact:	760-355-6201
Units:	3	Class Format:	In person M, R, F RT-OL: TW

Welcome Students! The winter semester will be fun – we actually get to meet **IN PERSON!** YAY! The benefit to in person learning is **HUGE!** I want to see you succeed in this class and your next class and at the university! Your first assignment – eat healthy, take your vitamins and exercise frequently! Keep your immune system healthy and strong.



Do you remember all that trigonometry you learned not so long ago?

Well, we get to remember much of that trig – especially the identities (my favorite part)

My job: To be available for you and to help you both learn and succeed.

What does success mean?

- Doing well in this course AND
- Succeeding in the next course (Math 192, 194, 210, 220)

I'm not going to sugar coat it – if your success in previous math courses included alternate sources, you will have some catching up to do.

Again – we want you to succeed at the university!



Course Description

The study of trigonometric functions, their inverses and their graphs, trigonometric identities and proofs related to trigonometric expressions, trigonometric equations, solving right triangles, solving triangles using Law of Cosines and the Law of Sines, and polar coordinates. (CSU)

Textbooks & Other Resources or Links

Trigonometry, 12th edition. Lial, Hornsby, Schneider, Daniels ISBN-13. 978-0136552161

Course Prerequisite(s) and/or Corequisite(s)

Appropriate placement as defined by AB705 or, MATH 140 or equivalent with a grade of "C" or better.

Student Learning Outcomes

Demonstrate problem-solving strategies by identifying an appropriate method to solve a given problem, correctly set up the problem, perform the appropriate analysis and computation, and share their interpretation of the conclusion or the outcome, using correct grammar or in an oral presentation. This outcome will be assessed through selected exercises on exams throughout the semester

Course Requirements and Instructional Methods

Projects: There will be projects assigned throughout the semester. The projects are designed to help you think more deeply about solving math problems. You are expected to work as a group. Turn in ONE PAPER PER GROUP

Quizzes: The opportunity to share your knowledge of your homework will be provided on quizzes. In class, we will randomly select 2 or 3 problems. You will have at most 8 minutes to copy down the problems completely from your homework. If you do not do your homework and/or your homework is not organized and neat, you will not have time to complete the quizzes. They will come directly from the homework. I may ask you Chapter 2.3 #4 (in which case, you look in your homework for chapter 2.3 # 4 and write it down).

Homework: Homework is not part of your direct grade calculations. Homework should be done with the intellect of you and you classmates. It should not include any other online learning platform (unless you are verifying your work). Photomath, Chegg, and all your other platforms are not available to you on exams. They will not be available to you while you are designing the airplanes or are operating on someone. Treat college as though you are in the work force. You are the solution. There will be new problems and/or situations every day that you need to solve with your colleagues. Start the productive struggle now!

Exams: There are three exams in the semester where you are given the opportunity to share your knowledge and what you have learned. The exams must be done in person.

Final Exam: The final exam is cumulative. More details will be provided week 5.

Course Grading Based on Course Objectives

Projects.....	5%
Quizzes.....	10%
Exams.....	60% (3 exams = 20 % each exam)
Final Exam.....	25%

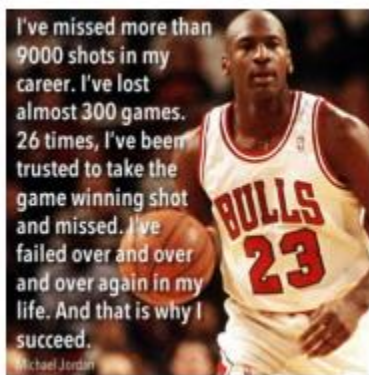
A: $90 \leq x$; B: $80 \leq x < 90$; C: $70 \leq x < 80$; D: $60 \leq x < 70$; F: $x < 60$

Course Objectives

1. Define the six trigonometric functions using right triangle, the coordinate system and unit circle definitions.
2. Evaluate the trigonometric function of an angle in degree and radian measure
3. Manipulate and simplify trigonometric expressions.
4. Graph trigonometric functions, including those involving vertical and horizontal translations.
5. Evaluate and graph inverse trigonometric functions.
6. Solve triangles using the Law of Sines and Law of Cosines, including ambiguous cases.
7. Verify trigonometric identities, including sum and difference formulas, half-angle and power-reducing formulas and prove trigonometric identities.
8. Solve trigonometric equations, triangles and applications.
9. Graph polar equations.
10. Convert between polar and rectangular coordinates and equations.
11. Calculate powers and roots of complex numbers using DeMoivre's Theorem
12. Represent a vector in the form $\langle a,b \rangle$ and $ai + bj$
13. Solve application problems.

Course Policies

1. Have a lot of fun! Learning is no fun if you stress about learning! Always have a positive attitude. Stop, think, and relax! Allow your mind to be creative, give yourself permission to fail and embrace your success!



2. Come to class AND participate in class! It doesn't do you, your peers or myself any good if you are texting throughout class and your mind is concentrated on your weekend rather than "the now".
3. Do a little bit of work each and every day. 1% improvement each day equates to a lot of time spent learning (learning is different than studying) – it is productive studying!
4. Show up on time, prepared and ready to learn, In zoom class, I do not like talking to myself. Respond, ask questions and slow me down, if necessary. Participate in zoom class – don't just have the zoom on. Be responsible for your own learning.
5. Do your homework – and keep your homework organized and neat and legible. Bring your homework with you to class.
6. Due to state policy, we may not bring children to class.
7. Work together in study groups. It's amazing how much better students do when they collaborate.
8. Use our embedded tutor. She is there to help you. I am available most evenings, Friday, Saturday and Sunday on zoom.

IVC Student Resources

IVC wants you to be successful in all aspects of your education. For help, resources, services, and an explanation of policies, visit <http://www.imperial.edu/studentresources> or click the heart icon in Canvas.

Anticipated Class Schedule/Calendar

Date or Week	Activity, Assignment, and/or Topic
1/3/23	Syllabus & Introduction, 1.1 -1.2
1/4/23	1.2, 1.3, 1.4
1/5/23	1.4, 2.1, 2.2
1/6/23	2.3, 2.4
1/9/23	3.1, 3.2
1/10/23	3.3, 3.4
1/11/23	4.1, Review
1/12/23	Exam Chapter 1, 2, 3.1 and 3.2
1/13/23	4.2, 4.3
1/16/23	Holiday
1/17/23	4.4, 4.5
1/18/23	5.1, 5.2
1/19/23	5.3, 5.4
1/20/23	5.5, 5.6
1/23/23	6.1, 6.2
1/24/23	6.3
1/25/23	6.4
1/26/23	7.1, Review
1/27/23	Exam 3 - Chapter 5 and 6
1/30/23	7.2, 7.3
1/31/23	8.1, 8.2
2/01/23	8.3, 8.4
2/02/23	Review
2/03/23	Final Exam

*****Subject to change without prior notice*****

****Quizzes will occur most every class or online.**



	Recommended Homework Problems	Completed	Need help on:
Chapter 1.1	2, 3, 4, 5, 10, 11, 13, 15, 17, 23, 25, 27, 29, 31, 77, 81, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103, 105, 111, 115, 119, 121, 123, 127		
Chapter 1.2	1, 2, 3, 4, 5, 7, 9, 11, 13, 15, 17, 19, 21, 31, 33, 35, 37, 39, 41, 43, 47, 49, 51, 53, 55, 57, 59, 63, 65, 67		
Chapter 1.3	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 103, 105, 107, 109		
Chapter 1.4	1, 2, 3, 4, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 87, 89, 91, 93, 95, 97, 99, 101, 105		