

### Basic Course Information

Semester:	<b>Summer 2021</b>	Instructor Name:	<b>Jill Nelipovich</b>
Course Title & #:	<b>Math 140 - Trigonometry</b>	Email:	<b>jill.nelipovich@imperial.edu</b>
CRN #:	<b>30121</b>	Webpage (optional):	<b>CANVAS</b>
Classroom:	<b>ONLINE</b>	Office #:	<b>6297</b>
Class Dates:	<b>See optional zoom schedule</b>	Office Hours:	<b>**by appointment</b>
Class Days:	<b>See optional zoom schedule</b>	Office Phone #:	<b>Cell phone #: in CANVAS Office: 760-355-6297</b>
Class Times:	<b>See optional zoom schedule</b>	Emergency Contact:	<b>Silvia Murray 760-355-6201</b>
Units:	<b>3</b>	Class Format:	<b>ONLINE with OPTIONAL zoom</b>

### Welcome Students! 😊

- Thank you for joining us on your academic journey this summer!
- The class format will be entirely online.
- A majority of the work will be completed through Canvas.
- I will offer multiple zoom sessions throughout the summer. The sessions are **OPTIONAL!**

### Scheduled Optional Zoom Sessions:

**(All sessions will be recorded and posted on Canvas provided students attend)**

**\*\*I will survey students to find other times as well.**

	Zoom Sessions		
Week 1 June 21 – June 24	Monday June 21: 10:30 – 11:30 a.m.	Week 4: July 12 – July 15	Tuesday July 13 10:30 – 11:30 a.m.
	Tuesday June 22: 10:30 – 11:30 a.m.		Thursday July 15 10:30 – 11:30 a.m.
	Thursday June 24: 11:00 a.m. – 12:00 p.m.		
Week 2 June 28 – Jul 1	Monday June 28 10:30 – 11:30	Week 5: July 19 – July 22	Monday July 19 10:30 – 11:30
	Thursday July 1 10:30 – 11:30		Thursday July 22 10:30 – 11:30
Week 3: July 5 – July 8	Tuesday July 6 10:30 – 11:30	Week 6: July 26 – July 29	Monday July 26 10:30 – 11:30
	Thursday July 8 10:30- 11:30 a.m.		Tuesday July 27 10:30 – 11:30
			Wednesday July 28 1:00 – 2:00 p.m.

**Welcome Students 😊** The fall semester will be a new experience for all of us. First “assignment” in this class is to stay healthy and exercise frequently. Exercise creates a healthy immune system.



To the left is more of a calculus topic – but we need trigonometry to succeed in calculus!

My job: To be available for you and to help you both learn and succeed in a remote environment.

What does success mean?

- Doing well in this course

AND

- Succeeding in the next course (Math 190)

- “Should I be scared of trig”

Nope! Several students before you have succeeded and, when you put the work in, YOU WILL TOO!

## 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)

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

Appropriate placement as defined by AB705 or, MATH 098 or MATH 091 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. (ILO1, ILO2)

## Course Objectives

Upon satisfactory completion of the course, students will be able to:

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  $a\mathbf{i} + b\mathbf{j}$
13. Solve application problems.

## Textbooks & Other Resources or Links

Students may use either the **textbook or MyMathLab** (you do not need both)

1. Textbook: Trigonometry, 11th edition, Lial, Hornsby, Schneider, and Daniels, ISBN-13: 978-0134217437  
*OR*
2. [MyMathLab Registration Instructions](#)

## Course Requirements and Instructional Methods

### How will the class be structured in the online modality?

#### ONLINE COURSE STRUCTURE

1. Guided Lecture Notes for each chapter will be provided in Canvas – [Chapter 1](#)
2. Video Lectures: [Chapter 1.3.1 – Video 1 – Pythagorean Theorem and the Distance Formula](#)
  - Zoom class (optional - I will post the zoom class video)
  - The videos are, on average, between 10 – 15 minutes in link (3 to 4 per section)
  - Video Lecture note quizzes (either embedded in the videos or on canvas).
4. Quizzes – Based on homework problems and assigned in CANVAS daily
5. Discussion Board: 3 posts – (since this is an online course, we need to have interaction)
  - a. **Introduce Yourself**
  - b. **Work in groups of two to graph and post a trigonometric function.**

Another group of two will offer positive feedback and illustrate areas to improve on from your beautiful math work!
  - c. **Work in groups of two to post a trigonometric identity.**

Another group of two will offer positive feedback and illustrate areas to improve on from your beautiful math work!
6. Online Exams (3 exams + final)

#### How to Succeed in the ONLINE course structure:

- It will be imperative you keep up with the course and stay disciplined.
- Dedicate a time each day to watch videos and do homework. It is best if you break it up into multiple small intervals. This gives your brain some rest time.
- Attend our virtual “zoom” sessions. If you cannot make the pre-listed times, let me know, I will offer additional meeting times.



**Out of Class Assignments:** The Department of Education policy states that one (1) credit hour is the amount of student work that reasonably approximates not less than one hour of class time and two (2) hours of out-of-class time per week over the span of a semester. WASC has adopted a similar requirement.

### Course Grading Based on Course Objectives

Homework Quizzes.....	10%
Discussions/Projects.....	5%
Exams (3) .....	60%
Final Exam.....	25%
<hr/>	
<b>Total:</b>	<b>100%</b>

**\*\* There are no make-up for exams.**

**If you miss an exam, you will be provided a longer final to accommodate for the missing assessment. ONLY DOCUMENTED EXCUSED ABSENCES WILL BE CONSIDERED**

### Course Policies

ATTEND CLASS

PAY ATTENTION WHEN IN CLASS

Keep up with the homework and quizzes

Self-motivation is a must!

Do your homework before the next class session. Attend office hours and/or text when you can make it

Be respectful of your classmates. Show up on time and ready to learn.

**Have fun! Remember – this is your first class on the pathway to a STEM degree! Use the opportunity wisely 😊**

### 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

\*\* subject to change without prior notice

Date or Week	Activity, Assignment, and/or Topic	Date or Week	Activity, Assignment, and/or Topic
6/21	a. Orientation, 1.1, 1.2 b. Orientation Quiz #1 Due	7/12	<b>a. Exam 2</b> 3.3, 3.4, 4.1 – 4.5, 5.1
6/22	a. 1.3, 1.4, 2.1 b. Quiz #2	7/13	a. 5.3, 5.4 b. Quiz # 9
6/23	a. 2.2, 2.3 b. Quiz #3	7/14	a. 5.5, 5.6 b. Quiz #10
6/24	a. 2.4, 3.1, 3.2 b. Quiz #4	7/15	a. 6.1, 6.2, 6.3 b. Quiz #11
6/28	a. Review b. Final Call for Quizzes #1 - 4	7/19	a. 6.4, Review b. Quiz #12
6/29	<b>a. Exam 1:</b> 1.1 – 1.4, 2.1 – 2.4, 3.1	7/20	<b>a. Exam 3</b> 5.1 – 5.6, 6.1 – 6.2
6/30	a. 3.3, 3.4 b. Quiz #5	7/21	a. 7.1, 7.2 b. Quiz #13
7/1	a. 4.1, 4.2 b. Quiz #6	7/22	a. 7.3, 7.4 b. Quiz #14
7/5	<b>Holiday</b>	7/26	a. 8.1, 8.2, 8.3 b. Quiz #15
7/6	a. 4.3, 4.4 b. Quiz #7	7/27	a. 8.4, 8.5 b. Quiz #16
7/7	a. 4.5, 5.1 b. Quiz #8	7/28	a. Review b. Final Call Quizzes #13 - 15
7/8	a. 5.2, Review b. Final Call Quizzes #5 - 8	7/29	<b>Final Exam</b> <b>Cumulative Chapter 4 - 8</b>

Quiz Schedule – Quizzes are between 5 and 10 questions per quiz – depending on the difficulty of the topic.

Quiz #1: Orientation Quiz #2: 1.1, 1.2 Quiz #3: 1.3, 1.4, 1.2 Quiz #4: 2.2, 2.3, 3.1 <b>Final Due date for Quizzes #1 - #4: 6/28/21 @11:59 p.m.</b>	Quiz # 9: 5.2 Quiz #10: 5.3, 5.4 Quiz #11: 5.5 Quiz #12: 6.1, 6.2 <b>Final Date for quizzes # 9 – 12: 7/19/21 at 11:59 p.m.</b>
Quiz #5: 3.2 Quiz #6: 3.3, 3.4 Quiz #7: 4.1, 4.2 Quiz #8: 4.3, 4.4 <b>Final Due Date for Quizzes # 5 – 8: 7/8/21 at 11:59 p.m.</b>	Quiz #13: 6.3, 6.4 Quiz #14: 7.1, 7.2 Quiz #15: 7.3, 7.4 Quiz # 15: 8.1 – 8.3 <b>Final Date for Quizzes #13 – 15: 7/28/21 @ 11:59 p.m.</b>



IMPERIAL VALLEY COLLEGE

---