IMPERIAL VALLEY COLLEGE

Basic Course Information

Semester:	**Fall 2026**	Instructor Name:	**Leobardo Rosales Jr**
Course Title & #:	**Math 140: Trigonometry**	Email:	**leobardo.rosales@imperial.edu**
CRN #:	**11058**	Webpage (optional):	**Canvas**
Classroom:	**2700-2725**	Office #:	**3900**
Class Dates:	**8/11-12/3**	Office Hours:	**Wednesdays 4:55-5:55pm in 2725**
Class Days:	**MW**	Office Phone #:	
Class Times:	6:00-7:25pm	Emergency Contact:	**Silvia Murray 760-355-6201**
Units:	3	Class Format/Modality:	face-to-face

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)

Successful completion of Intermediate Algebra or appropriate placement as defined by AB705.

Student Learning Outcomes

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

1. 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 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 and ai + bj
13. Solve application problems.

Textbooks & Other Resources or Links

- Recommended textbook:
  - Lial, Hornsby, Schneider, Daniels. 2020. *Trigonometry*. 12th Pearson. ISBN: 978-0136552161.
  - I will provide more information the first day of class.
- A scientific calculator is required for the Tests and Final.
- At least 30 index cards, for the Quizzes.

Course Requirements and Instructional Methods

This course will consist of lectures, quizzes, assignments, three tests, and a final.

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 16-week class. For this class that means approximately 9 hours of class and out-of-class time per week.

Course Grading Based on Course Objectives

There will usually be two quizzes every week, weekly assignments, and weekly discussions. Every fourth week there will be a test. In particular, Test 1 will be at the end of the fourth week. At the end of the class there will be a comprehensive Final. Your grade will be computed as follows:

- Assignments 20%
- Quizzes 20%
- 3 Tests 30%
- Final 30%

The following grading scale will be used: 90% and above is an A, 80% and above is a B, 70% and above is a C, and 60% and above is a D. Below 59% is an F.

Academic Honesty (Artificial Intelligence -AI)

IVC values critical thinking and communication skills and considers academic integrity essential to learning. Using AI tools as a replacement for your own thinking, writing, or quantitative reasoning goes against both our mission and academic honesty policy and will be considered academic dishonesty, or plagiarism unless you have been instructed to do so by your instructor. In case of any uncertainty regarding the ethical use of AI tools, students are encouraged to reach out to their instructors for clarification.

Accessibility Statement

Imperial Valley College is committed to providing an accessible learning experience for all students, regardless of course modality. Every effort has been made to ensure that this course complies with all state and federal accessibility regulations, including Section 508 of the Rehabilitation Act, the Americans with Disabilities Act (ADA), and Title 5 of the California Code of Regulations. However, if you encounter any content that is not

accessible, please contact your instructor or the area dean for assistance. If you have specific accommodations through ***DSPS***, contact them for additional assistance.
We are here to support you and ensure that you have equal access to all course materials.

Course Policies

1. The definition of an excused absence is one which is out of your immediate control. This can include but is not limited to illness, accident, and appointments set by official agencies. It does not include sleeping-in or forgetting about class.
2. If you do not attend any of the first **four** class meeting without an excused absence, then you will be dropped from the class. Send me an email if you must or have missed any of the first four class meetings before 8am of the following day.
3. Assignments will be due through Canvas. Send me an email if you cannot or did not submit an assignment due to an excused absence.
4. We will be taking a Quiz at the end of each lecture. Send me an email if you cannot or did not take a Quiz due to an excused absence.
5. If you miss a Test due to an excused absence, then your score for that Test will be replaced by your score for the next test, or in case of Test 3 by the score on your Final. Send me an email if you cannot or did not take a test due to an excused absence.
6. Attending the Final is absolutely mandatory. There is no make-up or replacement for the Final.
7. All general rules, including rules of etiquette, of Imperial Valley College apply.

The following are Academic Honesty policies.

1. You are encouraged to work closely on Assignments with other students.
2. Quizzes are open notes (your notes and the lecture notes), book, and power points slides. You may as well collaborate with other students. Electronic devices may be used as calculators or to access any allowed material. However, you may not use any electronic device to search for answers or to solve the problems using AI.
3. Tests are closed notes, closed friends and enemies. A scientific calculator is required. Any other type of electronic device may not be used without prior approval.
4. The Final is closed notes, closed friends and enemies. A scientific calculator is required. Any other type of electronic device may not be used without prior approval.

The first violation of these rules shall result in zero points for the assessment in question. The second violation shall result in an automatic fail for the course. Particularly egregious violations may result in further disciplinary measures.

Other Course Information

To be updated.

Financial Aid

Your Grades Matter! In order to continue to receive financial aid, you must meet the Satisfactory Academic Progress (SAP) requirement. Makings SAP means that you are maintaining a 2.0 GPA, you have successfully completed 67% of your coursework, and you will graduate on time. If you do not maintain SAP, you may lose your financial aid. If you have questions, please contact financial aid at finaid@imperial.edu.

IMPERIAL VALLEY COLLEGE

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

Week	Lecture 1	Lecture 2
1 Aug 11,13	Introduction, 1.1	1.2, 1.3, 1.4
2 Aug 18,20	2.1, 2.2	2.3, 2.4
3 Aug 25,27	3.1, 3.2	3.3, 3.4
4 Sep 1,3	Holiday	Test 1
5 Sep 8,10	4.1, 4.2	4.3, 4.4
6 Sep 15,17	5.1, 5.2	5.3
7 Sep 22,24	5.4	5.5, 5.6
8 Sep 29, Oct 1	Review	Test 2
9 Oct 6,8	6.1	6.2
10 Oct 13,15	6.3	6.4
11 Oct 20,22	7.1	7.2
12 Oct 27,29	Review	Test 3
13 Nov 3,5	7.3	8.1
14 Nov 10,12	Holiday	8.2
15 Nov 17,19	8.3	8.4
Thanksgiving Nov 24,26	Holiday	Holiday
16 Dec 1,3	Review	Final

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

Updated 11/2024