

Note to Instructor: Replace the placeholder text beneath the headings with the appropriate information for your course. Please note that all sections, with the exception of "Other Course Information," are required elements.

Basic Course Information

| Semester: | WINTER 2022 | Instructor Name: | ERIC LEHTONEN |
|-------------------|--|---------------------|----------------------------|
| Course Title & #: | M140 TRIGONOMETRY | Email: | eric.lehtonen@imperial.edu |
| CRN #: | 15026 | Webpage (optional): | |
| Classroom: | 2721 | Office #: | 2763 |
| Class Dates: | 1/03/22-2/03/22 | Office Hours: | MW 9:00-10:00 AM |
| Class Days: | MW 10-12:10 IN CLASS TRT 10:00-12:10 ONLINE | Office Phone #: | (760)355-6522 |
| Class Times: | `10:00-12:10 | Emergency Contact: | (619)517-3742 |
| Units: | 3 | Class Format: | |

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)

A. PREREQUISITES, if any:

Appropriate placement as defined by AB705 or, MATH 098 or MATH 091 with at grade of "C" or better.

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

Textbooks & Other Resources or Links

Lial, Hornsby, Schneider, Daniels 2016. *Trigonometry* 11th. Pearson ISBN: 978-0134217437. Earlier editions are OK!

Course Requirements and Instructional Methods

Course Requirements and Instructional Methods

Calculator: NO Calculators are permitted. Period.

The course will be in a standard lecture format.

Grading

Tests 60%. There will be 4 chapter tests. You will be allowed to drop the lowest test.

Final Exam 30%. There will be a comprehensive final exam.



Quizzes. There will be regular quizzes on CANVas. They will be based on the homework.

I WILL NOT COLLECT THE HOMEWORK. THE FIRST STUDENT TO ASK WILL BE MADE FUN OF.

IMPORTANT!!! 3 OF THE 4 TESTS AND THE FINAL WILL BE IN THE CLASSROOM. NO ONLINE ACCESS WILL BE PERMITTED.

Course Policies

Take this nonsense with a grain of salt, EXCEPT FOR THE PART ABOUT ACADEMIC HONESTY.

Attendance

- A student who fails to attend the first meeting of a class or does not complete the first mandatory activity of an online class will be dropped by the instructor as of the first official meeting of that class. Should readmission be desired, the student's status will be the same as that of any other student who desires to add a class. It is the student's responsibility to drop or officially withdraw from the class. See General Catalog for details.
- Regular attendance in all classes is expected of all students. A student whose continuous, unexcused absences exceed the number of hours the class is scheduled to meet per week may be dropped. For online courses, students who fail to complete required activities for two consecutive weeks may be considered to have excessive absences and may be dropped.



Absences attributed to the representation of the college at officially approved events (conferences, contests, and field trips) will be counted as 'excused' absences.

Classroom Etiquette

- <u>Food and Drink</u> are prohibited in all classrooms. Water bottles with lids/ caps are the only exception. Additional restrictions will apply in labs. Please comply as directed.
- <u>Disruptive Students:</u> Students who disrupt or interfere with a class may be sent out of the room and told to meet with the Campus Disciplinary Officer before returning to continue with coursework. Disciplinary procedures will be followed as outlined in the General Catalog.
- <u>Children in the classroom:</u> Due to college rules and state laws, no one who is not enrolled in the class may attend, including children.

Academic Honesty

- <u>Plagiarism</u> is taking and presenting as one's own the writings or ideas of others, without citing the source. You should understand the concept of plagiarism and keep it in mind when taking exams and preparing written materials. If you do not understand how to 'cite a source' correctly, you must ask for help.
- <u>Cheating</u> is defined as fraud, deceit, or dishonesty in an academic assignment, or using or attempting to use materials, or assisting others in using materials that are prohibited or inappropriate in the context of the academic assignment in question.

Anyone caught cheating or will receive a zero (0) on the exam or assignment, and the instructor may report the incident to the Campus Disciplinary Officer, who may place related documentation in a file. Repeated acts of cheating may result in an F in the course and/or



disciplinary action. Please refer to the General School Catalog for more information on academic dishonesty or other misconduct. Acts of cheating include, but are not limited to, the following: (a) plagiarism; (b) copying or attempting to copy from others during an examination or on an assignment; (c) communicating test information with another person during an examination; (d) allowing others to do an assignment or portion of an assignment; (e) using a commercial term paper service.

Additional Help – Discretionary Section and Language

- <u>Blackboard</u> support center: <u>http://bbcrm.edusupportcenter.com/ics/</u> <u>support/default.asp?deptID=8543 (Links to an external site.)</u>
- Learning Labs: There are several 'labs' on campus to assist you through the use of computers, tutors, or a combination. Please consult your college map for the Math Lab, Reading & Writing Lab, and Study Skills Center (library). Please speak to the instructor about labs unique to your specific program.
- <u>Library Services</u>: There is more to our library than just books. You have access to tutors in the Study Skills Center, study rooms for small groups, and online access to a wealth of resources.

Disabled Student Programs and Services (DSPS)

Any student with a documented disability who may need educational accommodations should notify the instructor or the Disabled Student Programs and Services (DSP&S) office as soon as possible. The DSP&S office is located in Building 2100, telephone 760-355-6313, if you feel you need to be evaluated for educational accommodations.

Student Counseling and Health Services



Students have counseling and health services available, provided by the pre-paid Student Health Fee. We now also have a fulltime mental health counselor. For information see <u>http://www.imperial.edu/students/student-health-center/</u>

<u>(Links to an external site.)</u>

. The IVC Student Health Center is located in the Health Science building in Room 2109, telephone 760-355-6310.

Student Rights and Responsibilities

Students have the right to experience a positive learning environment and due process. For further information regarding student rights and responsibilities, please refer to the IVC General Catalog available online at http://www.imperial.edu/index.php? option=com docman&task=doc download&gid=4516&Itemid=762

(Links to an external site.)

Information Literacy

Required Language: Imperial Valley College is dedicated to helping students skillfully discover, evaluate, and use information from all sources. Students can access tutorials at <u>http://www.imperial.edu/courses-and-programs/divisions/arts-and-letters/library-department/info-lit-tutorials/</u>

(Links to an external site.)

IVC Student Resources

Anticipated Class Schedule/Calendar



Week 1

| Date or Week | Activity, Assignment, and/or Topic | |
|--------------|------------------------------------|--|
| Jan. 4 | Introduction 1.1,1.2 | |
| Jan. 5 | 1.3,1.4 | |
| Jan. 6 | 2.1,2.2 | |
| Jan. 7 | 2.3,2.4 | |
| Jan. 8 | 3.1,3.2 | |
| Jan. 11 | Test Chapter 1,2 | |
| Jan. 12 | 3.3,3.4 | |
| Jan. 13 | 4.1,4.2 | |
| Jan. 14 | 4.3,4,4 | |
| Jan. 15 | 5.1,5.2 | |
| Jan. 18 | MLK DAY. No Class | |
| jan. 19 | Test Chapter 3,4 | |
| Jan. 20 | 5.3,5.4 | |
| Jan. 21 | 5.5,5.6 | |
| Jan. 22 | 6.1,6.2 | |
| Jan. 25 | Test Chapter 5 | |
| Jan. 26 | 6.3 | |
| Jan. 27 | 6.4 | |
| Jan. 28 | 7.1,7.2 | |
| Jan. 29 | 7.3 | |
| Feb. 1 | Test Chapter 6,7 | |
| Feb. 2 | Review | |
| Feb. 3 | Final Exam | |

Subject to change without prior notice