

Math 140 – Trigonometry - Syllabus Spring 2024

Basic Course Information

Semester:	Spring 2024	Instructor Name:	Jill Sorenson (Kitzmiller)
Course Title & #:	Math 140	Email:	jill.kitzmiller@imperial.edu
CRN #:	21133	Webpage (optional):	
Classroom:	2722	Office #:	2768
Class Dates:	2/12/24 – 6/7/24	Office Hours:	11:10 – 11:40 am and 2:30 – 3:30 pm T/Th and 9:30–10 MW by text/zoom
Class Days:	T/Th	Office Phone #:	760-355-6296
Class Times:	4:20 – 5:45 pm	Emergency Contact:	Sylvia Murray – Staff Sec 760-355-6201
Units:	3	Class Format:	In person on campus

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)

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

In Person Courses

This class meets in person on campus. You are expected to attend every class meeting. 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. If I am out of town due to family or medical reasons, class meetings may be live using zoom at the regularly scheduled time. You may attend using your own personal computer or a computer in the library and/ or watch the recording. These dates will be announced in advance.

Textbooks & Other Resources or Links

MYMATHLAB ACCESS CODE: (required): **A handout with instructions on registering with MYMATHLAB, as well as the necessary course ID number is posted on Canvas.**

Textbook: (not required) Lial, Hornsby, Schneider, Daniels. 2020. *Trigonometry*. 12th Pearson. ISBN: 978-0136552161.

A scientific calculator with trigonometric functions.

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

Course Requirements and Instructional Methods

In class instruction is lecture based with worksheets and practice problems that correspond to material covered in lecture. Evaluation is based on homework and in class examinations.

HOMEWORK: Homework is assigned on Pearson [mymathlab](#) site for each section covered in the book. You must purchase access to the website and then use your own personal computer with internet access or use a computer in the Math Lab or Library to complete the assignments. There are 5 points assigned for each homework assignment regardless of length. **It will be difficult to pass the class if you do not complete the homework!** There will be 2 projects which require written work worth 40 points each. There will be extra credit memorization quizzes.

There are 29 assignments on Mymathlab. Homework grades will be given 3 times each semester **after each test** based on your percentage of work completed for each assignment corresponding to the chapters for that test. Due dates are posted on Canvas. Each assignment will be graded as follows: 90 – 100% points 6 (1 extra credit), 70 – 89% 5 points, 60 – 69% 4 points, 50 – 59% 3 points, 40 – 49% 2 points, below 40 % 0 points.

EXAMS: There will be 3 exams and one cumulative final exam. There are **NO make-up exams** without a doctor's note and/ or arranged in advance. Any missed test must be rescheduled with the instructor and tests that were not excused or rescheduled in advance will receive a 15% reduction in grade. **The final exam is cumulative and mandatory for all students.** Any missing exam grade will be recorded as a 0.

Course Grading Based on Course Objectives

Points in this course are earned and grades are given according to the scale outlined below. All assignments are posted on Canvas along with the corresponding points and due dates. If any modification to assignments is necessary, students will be notified, and changes will be made on Canvas. Grades are not negotiable. All students will be treated equally. Your scores on each assignment or exam will be posted on Canvas. Your grade will be based on the percent of points you have earned by the end of the semester.

GRADING

Breakdown: 90% and up = A, 80 – 89% = B, 70 – 79% = C, 60 – 69% = D, below 60% = F.

INCOMPLETE GRADES: To receive a final grade of incomplete, you must be passing the class and be unable to take the final exam.

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.

Communication and Feedback Policies

I strive to check my email every day and try to respond to everyone within 24 - 48 hours if you require a response. I prefer that you email me using your IVC email address or from Canvas, sometimes emails from other sources go to junk mail and I do not see them. If you do **not** email me through Canvas, be sure to include the class you are enrolled in as the subject of your email. If you have not heard from me within the time period above, you can assume that I did not get your email and contact me again. I DO NOT look at email on the weekends (Friday- Sunday) or on holidays.

I communicate with the entire class during class and using announcements posted on Canvas. I will answer questions during class, in office hours, or by email. **Please check Canvas regularly for announcements.** Any updates, reminders, or changes, I will post as an announcement or send an email via Canvas messaging.

Normal turnaround for grading assignments is within one week of the due date. If you are emailing an assignment because you had an issue with turning it in using Canvas, give me a few extra days to grade it. Grades will be posted as they are scored and will be kept track on Canvas' grade book in which students can access. Answer keys to some assignments will be posted and questions on assignments discussed in class.

Course Policies

Attendance and Drop Policy

You must attend the first day of class or you will be dropped from the course as a 'No Show.' Should readmission be desired, the student's status will be the same as that of any other student who desires to add a class. 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. **It is the student's responsibility to drop or officially withdraw from the class.**

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.

Anticipated Class Schedule/Calendar

	Tuesday	Thursday
Week 1 February 12-15	Introduction 1.1	1.2 / 1.3
Week 2 February 19 - 22	1.3 / 1.4	2.1
Week 3 February 26 - 39	2.2 / 2.3	2.4 / 3.1
Week 4 March 4 – 7	3.1 /3.3	3.2 / 3.4
Week 5 March 11 – 14	Review	Exam 1
Week 6 March 18 – 21	4.1	4.1 / 4.2
Week 7 March 25 – 28	4.3 / 4.4	5.1
Week 8 April 1 – 4	Spring Break	Spring Break
Week 9 April 8 – 11	5.2	5.3 / 5.4
Week 10 April 15 – 18	5.3 / 5.4 Extra practice	5.6 / 5.7
Week 11 April 22 – 25	Review	Exam 2
Week 12 April 30 – May 2	6.1	6.1 / 6.2
Week 13 May 6 – 9	6.3	6.4 / 7.1
Week 14 May 13 – 16	7.1 / 7.2	7.3
Week 15 May 20 – 23	8.1 / 8.2 / 8.3	Review
Week 16 May 27 - 30	Exam 3	Review for Final
Week 17 June 3 – 6	FINAL EXAM	

To register for Math 140 Trigonometry Spring 2024:

1. Go to <https://mlm.pearson.com/enrollment/kitzmilller23683>.
2. Sign in with your Pearson student account or create your account. For Instructors creating a Student account, do not use your instructor credentials.
3. Select any available access option, if asked.
 - Enter a prepaid access code that came with your textbook or from the bookstore.
 - Buy instant access using a credit card or PayPal.
 - Select Get temporary access without payment for 14 days.
4. Select Go to my course.
5. Select Math 140 Trigonometry Spring 2024 from My Courses.

If you contact Pearson Support, give them the course ID: kitzmilller23683

To sign in later:

1. Go to <https://mlm.pearson.com>.
2. Sign in with the same Pearson account you used before.
3. Select Math 140 Trigonometry Spring 2024 from My Courses.