



### Basic Course Information

Semester:	<b>Fall 2024</b>	Instructor Name:	<b>Caroline Bennett</b>
Course Title & #:	<b>Math 140: Trigonometry</b>	Email:	<b>caroline.bennett@imperial.edu</b>
CRN #:	<b>11058</b>	Webpage:	<b>N/A</b>
Classroom:	<b>Building 2700, Room 2725</b>	Office #:	<b>Building 2700, Room 2765</b>
Class Dates:	<b>08/12/24 – 12/04/24</b>	Office Hours:	<b>Mon/Wed: 1:00 – 2:00 pm Tues/Thurs: 6:30 – 7:30 pm</b>
Class Days:	<b>Mon / Wed</b>	Office Phone #:	<b>(760) 355 - 6124</b>
Class Times:	<b>6:00 pm – 7:25 pm</b>	Emergency Contact:	<b>(760) 355 - 6155</b>
Units:	<b>3.0</b>	Class Format:	<b>Face-to-Face (on campus)</b>

### 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: Appropriate placement as defined by AB705 (however, prior completion of a college-level intermediate algebra course is STRONGLY recommended)

Corequisite: None (however, Math 042, the Math 140 Support Course, is recommended)

### Textbooks & Other Resources or Links

**MyMathLab (REQUIRED):** Homework assignments will be completed through the online learning platform MyMathLab. Information, link, and instructional video on how to get enrolled in MyMathLab will be available in Canvas. If you are already familiar with MyMathLab, then you can get enrolled with the following Course ID Number: **bennett16244**

**Calculator (REQUIRED):** A scientific calculator is required for this course. You can determine whether your calculator is a scientific calculator by checking that it has “log”, “ln”, and “e<sup>x</sup>” buttons. An inexpensive scientific calculator can be purchased for \$10 - \$15.

**Textbook (OPTIONAL):** Lial, Hornsby, Schneider, Daniels. 2020. *Trigonometry*, 12<sup>th</sup> ed. Pearson. ISBN: 978-0136552161 ; Since the textbook is available online through the MyMathLab platform, it is NOT required that you purchase a physical textbook.



## Course Grading Based on Course Objectives

### EVALUATION:

In-Class Activities/Quizzes	75
MyMathLab Homework	150
Projects	75
Non-Calculator Quiz	50
3 Exams × 150 points each	450
Final Exam (cumulative)	+ 200
	1000

### GRADING SCALE

900 – 1000	A
800 – 899	B
700 – 799	C
600 – 699	D
Below 600	F

**NOTE:** Grades are NOT posted in Canvas.

**NOTE:** The final exam in this course is cumulative and mandatory for all students.

**NOTE:** The grade that is earned, according to the point scale above, is the grade that will be received. Grades are not subjective. Grades are not negotiable. All students will be assessed according to equal standards.

**PERCENTAGES SHOWN IN MYMATHLAB:** MyMathLab will automatically display a current “percentage” based upon the online work that you have completed (on homework only). However, this percentage generally does NOT reflect your accurate overall course grade, as it does not include the work that is completed in class (activities, quizzes, and exams). At the end of the semester, students’ MyMathLab data will be exported by the instructor to a separate spreadsheet, and grades will be calculated according to the category weights outlined above. You may contact the instructor at any point throughout the semester if you wish to see your current overall grade approximation.

## Student Learning Outcomes

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

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  $ai + bj$
13. Solve application problems.

## Other Course Information

**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. The Western Association of Schools and Colleges (WASC) has adopted a similar requirement. Since Math 140 is a 3-unit class, during a 16-week semester you should plan to spend a **minimum of 6 hours per week** working on homework, studying, receiving tutoring, etc., outside of class time, in order to achieve success. [More realistically, it should be 8 – 10 hours per week.]

The structuring of out-of-class hours is at your discretion; however, it is wise to **set up and stick to a routine** so that you follow the same structured schedule every week. As with any college math course, this course will be fast-paced and intensive. If you plan to stay in the class, it is a serious commitment.



## Course Requirements and Instructional Methods

### LECTURE AND INSTRUCTION

Our class will meet in person on campus. Classroom time will include a combination of instructor lecture and student activity time, as well as some opportunities to ask questions and receive help from both the embedded tutor and the instructor.

Exams (and quizzes, if we have any), take place in person during class time. While students may be permitted to work together during in-class activities, exams must be done individually. Although homework is online, **quizzes and exams must be taken in person**. The only exception is the Make-Up Quiz that is offered toward the end of the semester (see Course Calendar for the Make-Up Quiz due date).

### CATEGORIES OF ASSIGNMENTS

#### ONLINE (MYMATHLAB): HOMEWORK ASSIGNMENTS

These are the official homework assignments that make up the “Homework” portion of the overall course grade. These assignments provide very essential practice to help students prepare for quizzes and exams.

Homeworks are generally delineated by chapter/section, and each assignment is typically open for 3 – 7 days. After each assignment’s deadline passes, its link will remain open, and students will be able to continue working on it for 50% credit on any problems completed past the deadline (problems completed before the deadline still retain their 100% credit).

In the homework assignments, you have unlimited tries on each problem. Therefore, if you are willing to devote the necessary time and patience, then you can achieve a score of 100% on every homework assignment.

Students can receive assistance from me on specific homework problems during designated office hours, or from our embedded tutor during their review session times, or from any other math tutor provided by the IVC Learning Support Services Center or other tutoring resources. **The sooner you get started on each assignment, the more time you will have to ask questions and get help on particular problem areas.**

**A NOTE ABOUT HOMEWORK DEADLINES:** Homework deadlines are strict. Please understand that I cannot extend homework deadlines for particular students because of a missed a due date. In the interest of equity and fairness, it is vital that all students be assessed with exactly the same assignments and deadlines. **It is each student’s responsibility to log in regularly and stay on top of all due dates.** For the online homeworks, after an assignment’s due date passes, you may still work on it for 50% credit (you keep 100% credit for all work done before the due date).

**“I didn’t realize that assignment was due” and “I was having internet problems” are NOT valid excuses for missing assignment deadlines. IVC has computers available for students to use for assignments, but you cannot take advantage of this if you procrastinate and start an assignment only a few hours before its deadline.**



### PROJECTS: (Outside of class)

The only collected homework, outside of MyMathLab, will come in the form of Projects that will appear as typed problem sets in Canvas (Canvas → Files → Projects). Between 1 – 3 Projects will be given over the course of the semester. Students may be allowed to work in groups of up to 4 students on certain Projects (details will be specified for each separate Project in its instructions). Project instructions will be available on Canvas.

### IN-CLASS ACTIVITIES

Some in-class activities will be assigned and collected during class time. Although students may work together on these activities, each student must turn in their own work. **These are essentially “attendance” points that come from being present and participatory in class; therefore, missed activities cannot be made up later** (just as missed attendance cannot be made up), nor can they be completed ahead of time. **It is not about the actual math problem(s) in the activity, so much as it is about attendance and participation.**

If you attend regularly and only miss a couple of in-class activities throughout the semester, then this will have no significant impact on your overall grade. However, if you routinely miss class on a frequent basis, then these small in-class activity points will start to accumulate and have a greater impact on your overall course grade. Therefore, you should only remain in this class if you intend to commit to full, regular attendance throughout the semester.

### IN CLASS: HOMEWORK QUIZZES

There MAY be some quizzes sprinkled throughout the semester; if so, then upcoming quizzes will be announced both in class and on Canvas Announcements. Quizzes are not listed in the syllabus calendar, as their existence and dates are dependent upon the pace and progress of the class. These are referred to as “homework quizzes” because they come directly from the MyMathLab homework problems. Therefore, the best way to prepare for them is to stay caught up with your MyMathLab homework. Quiz points are included under your “In-Class Activities” points.

### IN CLASS: NON-CALCULATOR HOMEWORK QUIZ

This quiz will be centered around exact trigonometric function values of the standard Unit Circle reference angles ( $0^\circ$ ,  $30^\circ$ ,  $45^\circ$ ,  $60^\circ$ ,  $90^\circ$ ). Students must have these values memorized, and be able to use them in conjunction with reference angles, solving triangles, and other skills that have been emphasized up until that point in the semester.



### IN CLASS: EXAMS

There will be 3 regular exams and one cumulative Final Exam (see Course Calendar for exam dates). Exams must be taken in person. Unlike activities, students may NOT work together during exams. Exams are closed-book and closed-note. Calculators may or may not be permitted during exams, but NO cell phones or electronic devices of any kind are ever permitted. Students found using a phone/device during an exam will receive an automatic score of "0" for that exam, and a report of the incident will be sent to the Dean of Student Affairs.

### MAKE-UP POLICY

Each student will have the chance to make up ONE missed exam on the **designated Make-Up Exam day** towards the end of the semester (see Course Calendar for exact date). The Make-Up Exam can replace only one missing exam score.

If you do NOT miss any exams, then you may choose to take the Make-Up Exam if you wish, and replace your lowest exam score (if your Make-Up Exam score is higher than your lowest exam score). Students who miss an exam will lose this opportunity.

All exam dates are listed in the Course Calendar; please plan accordingly. If you know ahead of time that you absolutely cannot make an exam date due to an out-of-town trip or important engagement, it is possible to arrange with me to take an exam 1 – 3 days ahead of time. However, it is not possible to take an exam after the rest of the class takes it; in such cases, it will be necessary to take the universal Make-Up Exam on the day designated in the Course Calendar.

## Course Policies

### 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.



## Academic Honesty

### ARTIFICIAL INTELLIGENCE (AI)

IVC values critical thinking and communication skills and considers academic integrity to be essential to learning. Using AI tools as a replacement for your own thinking, writing, or quantitative reasoning goes against both our mission and our academic honesty policy, and it will be considered as 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.

### OTHER ASPECTS OF ACADEMIC HONESTY:

Academic honesty in the advancement of knowledge requires that all students and instructors respect the integrity of one another's work and recognize the important of acknowledging and safeguarding intellectual property.

There are many different forms of academic dishonesty. The following kinds of honesty violations and their definitions are not meant to be exhaustive. Rather, they are intended to serve as examples of unacceptable academic conduct.

- Plagiarism 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.
- Cheating 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.



## **ACADEMIC HONESTY, CONT.**

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 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) use of a commercial term paper service.

- The consequences of academic dishonesty are severe and may include the possibility of expulsion. For further information, refer to the Standards of Student Conduct on pp. 45-46 of the 2019-2020 General Catalog.

### **Examples of Academic Dishonesty that can occur in an online environment:**

- Copying from others on a quiz, test, examination, or assignment;
- Allowing someone else to copy your answers on a quiz, test, exam, or assignment;
- Having someone else take an exam or quiz for you, or complete an online assignment for you;
- Conferring with others during a test or quiz (if the instructor didn't explicitly say it was a group project, then he/she expects you to do the work without conferring with others);
- Buying or using a term paper or research paper from an internet source or other company or taking any work of another, even with permission, and presenting the work as your own;
- Excessive revising or editing by others that substantially alters your final work;
- Sharing information that allows other students an advantage on an exam (such as telling a peer what to expect on a make-up exam or prepping a student for a test in another section of the same class);
- Taking and using the words, work, or ideas of others and presenting any of these as your own work is plagiarism. This applies to all work generated by another, whether it be oral, written, or artistic work. Plagiarism may either be deliberate or unintentional.





## 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.

**CANVAS LMS:** Canvas is Imperial Valley College's Learning Management System. The [Canvas Student Guides Site](#) provides a variety of support available to students 24 hours per day. Additionally, a 24/7 Canvas Support Hotline is available for students to use: 877-893-9853.

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. Services include, but are not limited to:

- Tutoring Labs
- Career Services Center
- Child Development Center
- Student Counseling and Health Services
- Military and Veteran Success Center
- Extended Opportunity Program and Services (EOPS)
- Disabled Student Programs and Services
- Student Equity & Achievement Program\*
- Library Services and Information Literacy

### **\*What if I cannot afford food, books, or need other help?**

The Student Equity & Achievement Program has many resources that are available to you. Please tell us what you need by submitting your request(s) here:

<https://imperial.edu/students/student-equity-and-achievement/>



## Anticipated Class Schedule/Calendar

(\*With the exception of the Final Exam, these dates are tentative and subject to change with advance notice!)

Monday	Wednesday	Weekly Goals
8/12 <b>First day of class</b>	8/14	1.1 – 1.3
8/19	8/21	1.4; 2.1 – 2.2
8/26	8/28	2.3 – 2.4; 3.1
9/2 <b>HOLIDAY – NO CLASS</b>	9/4	3.1 – 3.2
9/9	9/11 <b>EXAM 1</b>	4.1 – 4.2; exam
9/16	9/18	4.3 – 4.4
9/23	9/25	5.1 – 5.3
9/30	10/2	5.4 – 5.6
10/7	10/9 <b>EXAM 2</b>	Catch up; exam
10/14	10/16	6.1 – 6.2
10/21	10/23 <b>NON-CALCULATOR QUIZ</b>	6.3 – 6.4
10/28	10/30	7.1 – 7.2
11/4	11/6	7.2 – 7.3; 8.1
11/11 <b>HOLIDAY – NO CLASS</b>	11/13 <b>EXAM 3</b>	8.2 – 8.3; exam
11/18	11/20 <b>MAKE-UP EXAM</b>	8.3 – 8.4, review, Make-Up Exam
11/25 <b>H O L I D A Y</b>	11/27 <b>N O</b>	<b>C L A S S E S</b>
12/2	12/4 <b>FINAL EXAM</b>	Review, Final Exam

### IMPORTANT DATES AND DEADLINES:

August 24	Last day to add class
August 25	Last day to withdraw without course appearing on transcripts (without receiving a “W”)
September 2	Holiday (Labor Day)
November 2	Last day to withdraw and receive a “W”
November 11	Holiday (Veterans Day)
November 20	Make-Up Exam
December 4	Final Exam (comprehensive)



## GET TUTORING HELP WHEN YOU HAVE QUESTIONS



1

Our class's own **embedded tutor**, \_\_\_\_\_, will be holding free tutoring sessions for two hours each week (solely for students in our Math 140 class).

*[Further information regarding the days/times and locations of these review sessions will be posted on Canvas as this information becomes available.]*

2

**The Learning Services Department is offering math tutoring both in person at the IVC Library and online through Zoom:**

<https://www.imperial.edu/students/learning-services/study-skills-center/>

Or, simply click on "**IVC Tutoring**" from the menu on the left of our Math 140 Canvas page to their online tutoring. For both in-person and online tutoring, appointments are not necessary for "drop-in" sessions.

3

**I will be holding office hours each week at the following days and times:**

Monday/Wednesday: 1:00 – 2:00 pm

Tuesday/Thursday: 6:30 – 7:30 pm

Please note: Office hours are a time for additional questions, clarifications, further examples, etc., to supplement what was covered in class. Office hours are NOT to be used for repeating entire lectures for students who missed class. If you must be absent for any reason, it is your responsibility to catch up on whatever material you missed that day.

I do not provide copies of my lecture notes or videos for students who are absent; therefore, if you are absent, it will be necessary to catch up by obtaining lecture notes from a classmate, reading the textbook, and/or finding other resources to help you obtain the missed material.

*"Never regard your study as a duty, but as the enviable opportunity to learn to know the liberating influence of beauty in the realm of the spirit for your own personal joy and to the profit of the community to which your later work belongs."*

*-- Albert Einstein*

