

## MATH 8 – Trigonometry – Summer Intersession 2019 CRN 53036



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This class meets: MTThF 11:15 a.m.-2:05 p.m. in R109

WEBSITE: <http://www.pccmath.com>

ANNOUNCEMENTS: <https://sites.google.com/site/pccmathuyekawa/>

The website is where you will find announcements, assignments, handouts, and useful links. You should check it often. If you ever have a question about the class, ALWAYS LOOK HERE BEFORE EMAILING ME.

**Note on Summer Intersession:** THIS MAY NOT BE THE COURSE FOR YOU!

You may have chosen winter intersession to get through this course quickly, but you must be willing to pay the price. We work at **3 times the pace** of a regular semester. I expect you to not only be in class, participating, 3 hours per day, which isn't easy, but also to spend 4-6 hours per day on homework. You will be tempted to rush through your homework but you really need to spend time thinking about the processes you are learning and practicing. That does not leave much time for anything else. Also note: During the summer session, I do not hold office hours and there is not as much available tutoring.

### **The Course:**

Course Description: Topics to be covered include: Trigonometric functions and their graphs; inverse trigonometric functions; unit circle and special right triangles; trigonometric identities and equations; polar and parametric equations; polar and rectangular forms of complex numbers and vectors; matrix algebra and Cramer's Rule; mathematical induction. Intended for STEM majors but open to all qualified students. No Credit if taken after Math 7B.

Prerequisites: Minimum grade of C in Math 3 or placement based on assessment process. Petitions are required (and seldom granted) to enroll in this course for a third time.

### Student Learning Outcomes:

Upon successful completion of the course, the student will be able to:

1. Analyze trigonometric functions.
2. Investigate trigonometric equations, including general and specific solutions.
3. Analyze equations and expressions using polar coordinates
4. Analyze vectors.
5. Prove trigonometric and algebraic identities.
6. Examine application problems.
7. Explore matrix equations and algebraic equations.

## What you will need:

### TEXTBOOK

We will be using a FREE OER text which is available online at <http://www.stitz-zeager.com/Precalculus4.pdf>



written by Jeff Zeager and Carl Stitz.

For those of you who want to order a printed copy, the first link is for the chapters in the book which apply to Math 8, the second is the appendices from the link above which cover the algebra review.

Math 8: <http://www.lulu.com/shop/jeff-zeager-and-carl-stitz/prec calculus-trigonometry/paperback/product-23794476.html>

Appendices (Algebra Review 8 [file://localhost/](http://localhost/) <http://www.lulu.com/shop/jeff-zeager-and-carl-stitz/appendices-a-and-b-review-material-for-college-algebra-for-stem-and-prec calculus-trigonometry/paperback/product-23794488.html>)

PreCalculus Trigonometry: Paperback \$15.6;  
Hardcover \$24.8

Appendices A and B: Paperback \$7.64  
Hardcover \$16.89

If you need an additional text for reference I would recommend Sullivan, Precalculus

3 ring binder with paper and 5 dividers.

Basic scientific calculator with trig functions. Graphing calculators or phones will not be allowed.

Colored pens are helpful.

### MY JOB:

My job is to make the material as clear and interesting as possible and to help you succeed at your goal of passing this class, transferring, and getting your degree. You can count on me to be on time and be prepared and organized. I will be patient when you are having trouble grasping the material. It is my responsibility to assess what you have learned and determine whether you are ready to go on the next level. Since math is so cumulative, you will only be successful at the next level if you are very adept at this level. If you earn a C or better in this course, it represents my experienced opinion that you are ready to be successful in the next course. I do not take this responsibility lightly. Sometimes students are frustrated because they feel they understand the material better than their performance on the exams indicates. Unfortunately, performance on exams is the only way I have for measuring what you have learned. As such, grades are based on performance, not on perceived understanding nor on need. I would be doing you a disservice to pass you on to the next course if I feel you are not yet ready to succeed.

**Grading** : Grades will be determined based on the following percentages:

Homework/Notebook/Quizzes	10 %
Tests	60 %
Final exam	30 %.

Letter grades will be given based on the following percentages

A:90-100%, B: 80-89%, C:70-79%, D: 60-69%

- I do not drop your lowest exam, however if it is to your benefit, your final exam score will replace your lowest exam score.

I am very passionate about my job. I care deeply about your success. I am committed to helping you achieve your goals.....But you have to be equally committed. My job is IMPOSSIBLE unless you do YOUR JOB. I work very hard and expect the same of you.

### **YOUR JOB:**

In order to be successful at this course you need to COMMIT to it. **Math takes time and practice to learn. There are no short cuts.** If there was an easier way, trust me, I would tell you! Even if you feel you are working hard, there is always more that can be done. You may find that as you climb the “math ladder” you get to a point where you feel you have reached your limit of understanding. It happens to us all at some point. But it just means you need to discover new approaches to studying since what worked before is no longer enough. To be successful in this class you need to come to class, do the homework, study for exams, and get help when needed.

The only way  
to learn  
**mathematics**  
is to do  
**mathematics.**

PAUL HALMOS

**Attend Class** I make a concerted effort to make the material as clear as possible in class. Because of this, **daily attendance is expected.** If you are unable to come to class, you are on your own to understand the material you missed. **Students missing class are responsible for finding out what they missed and what is due. (Check the announcement page or get contact information from a few classmates; I am unable to answer emails from every student that is absent.)** Excessive absences or tardiness will affect course grade. If you miss 10 hours of the course, you may be dropped.

**Do Homework** The ONLY way to master math skills is practice. Homework will be assigned daily. The number of problems I assign is the amount I have found that most students need. Some of you perhaps need less, but extra practice is always good. Others may need more practice than assigned to master the material. If so, there are plenty of extra problems and resources available; you must take it upon yourself to do extra. **Your homework grade will be determined in two ways: (1) your homework/notebook will be collected on the day of exam and checked for effort, completeness and organization and (2) short, unannounced, quizzes**

may be given on the day homework is “due” which often include problems taken directly from the homework assignment.

Please note: no late homework will be accepted and no make-up quizzes will be given, even if you have a valid reason for being absent. To compensate for that, you all get 10 extra homework points to start to account for absence etc.

#### **Notebook and HW expectations**

You will turn in your notebook at the beginning of each test. It should be neat and organized, divided by units, with everything clearly labeled. For each section you should have the notes, followed by homework from that section. At the end of the unit section will be any exam preparation you did to prepare for the exam. Once the graded exam is returned, it will be inserted at the end of the section together with your corrections.

**The notes:** Because of the pace of this course, I will provide you with note outlines which we will go through, enhance, fill in during class (and, undoubtedly make corrections!). You are welcome to include additional notes. You will earn a total of 10 points for complete, organized, clear notes.

#### **The homework problems:**

Your homework should be neat and thorough. The goal is not to just write something down to get homework credit, the goal is to learn. If you do a neat and thorough job on your homework, with explanations and notes in your own words, you will have created a valuable study guide for the exam. If you make a mistake, don't erase. Instead, learn from it. Make a note as to your understanding. If you rush through, do a sloppy job, or just copy my work, you may earn some homework credit, but your completed assignment is otherwise worthless. You do the homework for your benefit, not mine. I collect it only to keep you motivated to do it.

When doing your homework, you are expected to take the time to read the corresponding sections carefully. Reading a math textbook properly takes time. You are expected to go through each of the book's examples step-by-step. After reading the text and reviewing the class notes, you should attempt to work the problems. Check your answers to all the odd problems to make sure you are doing them correctly. For any problems that you get wrong, try them again. Don't give up easily, many problems require a few tries. Challenge and struggle is how you learn. Look back in the notes or the example problems to see if there is a similar problem. Try SOMETHING. If after trying the problem a couple of times you still can't do it, YOU SHOULD CIRCLE IT then ask about it in class. Have all your questions organized before coming to class.

Each section should have the section number on it and assignment written on the top. You should have already noted which problems you have questions on. Problems should be presented in the order assigned with problem numbers shown neatly so that I can easily follow your work.

I grade homework based on completeness, I don't correct it. That is your job. Each section of homework is worth 5 points. If you attempt AND CHECK all the problems, you will earn a 5. Points will be deducted for missing problems. I will also deduct points if no work is shown, answers have not been checked, simply copying my solution from the board, or if you are doing homework in class.

**The test corrections** will be checked when I check the following unit. These are worth 5 points.

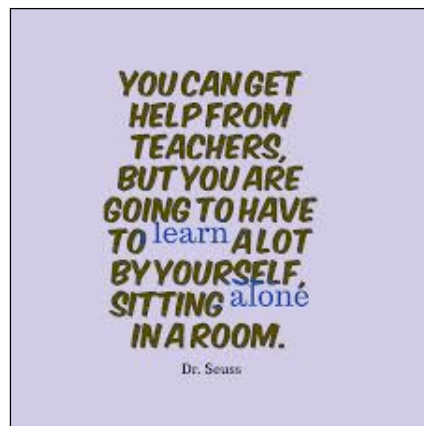
“Failure to prepare is preparing to fail.”

*Wooden, John*

#### Study for Exams:

The best way to study for a math exam is to review the basic concept from your book and notes and then DO AS MANY PROBLEMS AS YOU HAVE TIME TO DO, including those on the sample tests. You are not ready for the test until you are able to do many problems in a row correctly on the first attempt. Simply doing the homework and looking at the sample test will not adequately prepare you.

- 4 tests will be given.
- A final exam will be given Tuesday, July 30. This exam will be two hours long and will cover all course material.
- No Make-up exams. If you have a valid reason for missing an exam, your final exam score will count in place of the missed exam.



#### Get HELP

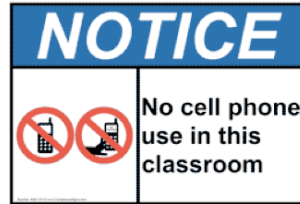
There are so many resources available if you are struggling! Take responsibility for your learning and seek assistance if needed. It is very important to request help as soon as difficulties arise. If you wait a DAY before getting help on a concept, you may be too far behind to recover. Here are some of your options:

- **Tutoring.** The college offers some free tutoring. More information will be made available in the first few weeks of class. Students needing more individualized help can seek private tutoring.
- **Study Groups.** Forming study groups with classmates is one of the BEST ways to be more successful in this class. Besides, it can make studying more fun!
- **Online Resources.** There are SO MANY really GOOD resources online. See my LINK page for suggestions
- The **Math Success Center R406**
- Other services on campus: Health, DSPS, Personal Counseling, etc

#### Personal Conduct

You are expected to be actively involved in your education. This includes being alert in class and

participating in class discussion. A good attitude on your part makes the class much more enjoyable. It is expected that you refrain from any activities that could be distracting to your classmates or to me. This includes talking, texting, sleeping, being tardy, etc.. Electronic devices such as computers and phones should be turned off and put away in class. If I have talk to you about any of these infractions more than once, you will be asked to leave. Note: If you have a special need which requires these electronics, see me. Children or friends not enrolled in the class may not accompany you to class.



*ACADEMIC INTEGRITY:* In a learning environment such as Pasadena City College, it is vital that we create an atmosphere of mutual trust. Cheating, plagiarism, falsifying information, and related behaviors destroy the very essence of learning and will not be tolerated. Any such action will adversely affect your grade and will lead to disciplinary action by the College. By enrolling in this class, you agree to comply with the *Student Conduct and Academic Honesty Policy* (No. 4520 - [www.pasadena.edu/IPRO/Policies/pcc\\_4520.pdf](http://www.pasadena.edu/IPRO/Policies/pcc_4520.pdf)). Violations of conduct in class or on campus are subject to disciplinary review. Students caught cheating may be given an F in the course and reported to the Dean of Students.

*If you have integrity, nothing  
else matters. If you don't  
have integrity, nothing else  
matters*

**- Alan Simpson**

Integrity and character are of utmost importance to me. Students caught cheating on an exam may be given an F in the course. At a minimum, a student who is cheating will be given a zero on that exam, which will not be replaced by the final exam score, and will be required to sit in the front row for remaining exams. A formal report will be submitted to the Dean of Students. During exams, your phones, smart watches, headphones or any other electronic devices must not be anywhere in sight. If I even SEE them, it will constitute cheating. Students will not be allowed to leave the class during an exam unless medically necessary. You are required to carry your PCC student ID at all times. I may request to check it at any time.

**Important Dates:**

7/4 Independence day (no classes)

7/19 Last day to drop with a "W"