

## MATH 7B – MATHEMATICAL ANALYSIS II – Spring 2017



Professor Kathleen Hogue

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This class meets: TTh 4:00-6:30 in C304

Office Hours: M: 11:00 a.m.-1:00 p.m.  
T: 6:30 p.m.-7:15 p.m.  
Th: 6:30 p.m.-7:15 p.m.  
F: 11:00 a.m.-1:00 p.m. (IN R406)

Note: I am not on campus on Wednesdays

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. You would be amazed at how many questions I get on a daily basis that are answered on the announcement page. One of my goals is to help you be more self sufficient and ready for the university level. Because of this, if you ask me a question that is answered in the syllabus or on the website, I will refer you there rather than answer.

### The Course:

Course Description: Topics to be covered include: Trigonometric Identities and Equations, Solutions of Triangles, Polar Coordinates, Conic Sections, Parametric Equations, Sequences and Series, Mathematical induction, solutions to linear and non-linear systems, vectors and their applications. The goal is to prepare you for Calculus.

Prerequisites: Minimum grade of C in Math 7A. Not only is the material in 7A necessary for the course, it is crucial in calculus. You need to have strong algebra and trig skills. Petitions are required (and seldom granted) to enroll in this course for a third time.

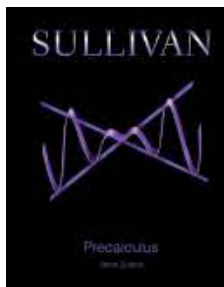
### Student Learning Outcomes:

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

1. Students will be able to work with expressions and solve equations involving trigonometric functions.
2. Students will be able to analyze and graph parametric and polar equations, and convert these to and from Cartesian coordinates when appropriate.
3. Students will be able to correctly model a real world situation using algebra, geometry, logarithms, exponentials and/or trigonometry and use this model to solve problems.
4. Students will be able to use mathematical notation to denote various mathematical objects, solve problems, and write proofs.

## What you will need:

**Text book** Sullivan, Precalculus, 10<sup>th</sup> edition. If bought in the bookstore, it comes packaged with “MyMathLab” access code. We will not be using MyMathLab in this course so you do not need it. If you have the code and are interested in using MyMathLab for extra practice, I can provide you with a course code. **CAUTION:** There is a different book titled “Precalculus” in the bookstore that is for Math 9.



**Calculator:** You will need a basic scientific calculator. Graphing calculators will not be allowed.

## 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. You can expect me to be in my office hours ready to help you. 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	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 “curve”; I do not drop the lowest 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.

## 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. Though I will gladly answer specific questions about the material AFTER you have studied it on your own, I will not repeat entire lectures in office hours. (Again, the goal is self sufficiency.) 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 will be collected most days and checked for completion and/or (2) short, unannounced, quizzes will be given 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.** If you know you are going to be absent, you may turn in your assignment early or have a friend turn it in. **I do not accept scanned/emailed homework. To compensate for that, you all get 10 extra homework points to start which allows you to miss 2 assignments if needed for absences etc.**

See [Homework Expectations](#) for a discussion on what I would like to see on your homework.

“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 as well as those in the chapter review of the book. You are not ready for the test until you are able to do many problems in a row correctly on the first attempt.

- Approximately 4 tests will be given.
- A final exam will be given Thursday June 15 at 3:15-5:15. This exam will be two hours long and will cover all course material.
- **No Make-up exams.** If you know ahead of time that you will be absent on the day of exam, it is sometimes possible to arrange to take it early. 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 week before getting help on a concept, you may be too far behind to recover. Here are some of your options:

- **My office hour.** Office hours are a great time to get individualized help. My goal is to help you succeed but I cannot help you if you don't ask! I am often surprised at students who are struggling with the material but never seek my help. (until maybe the week before the final when it is too late). I know sometimes it is hard to admit you don't understand something, or maybe you are afraid you won't understand even if you ask for help, but you can't know unless you ask! I am pretty patient and approachable! But I do expect you to do your part. It doesn't do any good just to come in and say "I don't get it" without having given it some thought. Again, I am trying to train you to be self sufficient. So before coming to office hours, please try to figure things out on your own or by using other resources. At a minimum look at your notes from class and read the book's examples. Try to narrow down what you do and don't understand. Bring me specific questions and show me what you tried on a problem. If you have tried those things and are still lost, come see me. I will try to help you figure out what you do and don't get. **NEVER** just give up on it and allow yourself to remain confused. Office hours are also a good time to discuss your concerns regarding the course and your performance. Again, come as soon as concerns arise.
- **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 Library.** Hang out in the QA section.
- The **Math Success Center R406**
- Other services on campus: Health, DSPS, Mental Health, 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. Children or friends not enrolled in the class may not accompany you to class. Students caught cheating may be given an F in the course and reported to the Dean of Students. During exams, your phones must not be anywhere in sight. If I even SEE them, you get an F. You are required to carry your PCC student ID at all times. I may request to check it at any time.

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

**- Alan Simpson**

**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.

### Important dates

Last day to drop the class May 15<sup>th</sup>

Final Exam: Thursday June 15 at 3:15-5:15