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CONTACT INFO

Paul Tokorcheck │ 257 KAP │ tokorche@usc.edu │ webpage

I plan to be in the background for most discussion sections on Tuesdays and Thursdays, and this will effectively function as my "office hours". You may ask homework questions to either myself or the TA in these discussions and if you want to talk about your grade or something similar, we can create private breakout rooms as needed.

Our Teaching Assistant is:

Haoyang Liu │ liuhaoya@usc.edu

REQUIRED SETUP

Our course will use the following online systems:

- **Blackboard** as the main hub for all communication, links, and course materials

- **Zoom** for lectures, discussions, office hours, and exams

- **Gradescope** for all written work submissions and grading

You will access the latter systems through links in our Blackboard page and none of them should require separate logins. We'll work through the initial setup in our first lecture. All are free - you should only need to purchase a textbook.

For all live **Zoom** sessions you will need a camera, microphone/speakers, and a stable internet connection. If any of this is an issue you can also use the free Zoom app for cell phones and tablets.

All written assignments will be handled through the **Gradescope** link in Blackboard and you can register with the Entry Code: **MP2XXN**.

You will need to submit your documents to Gradescope in PDF format. There are many free phone apps that you can use to scan your work, including Adobe Scan and others. During the submission process you must tag each question so the grader can find it.

Our **textbook** is an industry favorite which we use for our entire Calculus 1-3 series. It is a good investment if you plan to take multiple calculus courses here at USC. Otherwise you can rent a copy for far less money. Either way, make sure you get the standard version (red cover) and not the "Early Transcendentals" version (blue cover).

There will be exercises from the textbook due on most weekdays so you are expected to do problems every day and stay ahead of the due dates. Any exercises submitted after their due date will receive half-credit, regardless of circumstances.

WHAT YOU SHOULD KNOW

Officially, the course prerequisites are either **Math 108** or a suitable placement exam. But regardless of the courses you've taken or what your grades were, there are certain skills that you will need to have from the very first day of classes. You will be expected to:

- be proficient in **basic arithmetic**. This includes rules of exponents/roots, such as

$$25^{3/2} \quad \text{or} \quad \left(10^{-3}\right)^2 \quad \text{or} \quad 4^6 \cdot 32^{-5}$$

- **solve** either linear or quadratic **equations** for an unknown variable. You should know how to factor, complete the square, and use the quadratic formula.

- understand how **functions** work, and know basic vocabulary about them, such as their domains/ranges and whether or not a function is one-to-one. You should be familiar with a good number of examples.

- be able to **graph** a given function, identify features of the graph like intercepts or max/mins, and, importantly, how to find the **intersection** of two graphs.

- be familiar with **graph transformations**; i.e., how an algebraic modification of a function will affect its graph.

- understand when two functions are **inverse** to each other, or how to find the inverse of a given function.

- more specifically, be familiar with both **exponential** and **logarithmic** functions and basic arithmetic with these functions; i.e., the **rules of logarithms**, such as

$$\log_2(8) \quad \text{or} \quad \ln\left(\frac{x^2}{y^3}\right) \quad \text{or} \quad \log(25000) = 3 + 2\log(5)$$

- be very familiar with **trigonometry**, the six trig functions, and some of the more important trig identities. You should be able to solve equations that involve trig functions. You should have memorized the **unit circle**. All of this is very important. We will be dealing with angles and trig functions nearly every day of the semester.

We will not spend a lot of time reviewing this material, so if any of this is new/unfamiliar you'll be at a *significant* disadvantage going forward. In any case, do not be shy about using outside resources like the USC Math Center or Kahn Academy.

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WHAT YOU WILL LEARN

Limits; continuity, derivatives and applications; antiderivatives; the fundamental theorem of calculus; exponential and logarithmic functions. (4 units)

This corresponds to Chapters 1-5 of our textbook. Our main goals will be to help you:

1. develop and practice Calculus knowledge and computational skills,

2. read, write, and speak about Mathematics in a coherent and consistent way.

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DAILY LOGISTICS

I will record lectures live each Mon/Wed/Fri at **9-9:50am PST** and you may either attend this session or watch the recording when it is posted at the end of the day.

The Tues/Thurs discussion sections must be attended live and this is where you will be practicing your own skills, both solo and in small groups. The classwork you complete in these discussions will be due in Gradescope at **11pm PST** that same day. Late work will not be accepted under any circumstances and the Zoom attendance will be checked against the Gradescope submissions. However, from the $\sim$24 discussion sections we will drop the lowest **twelve** scores.

Zoom etiquette: You have a lot of freedom to attend whichever lecture/discussion times that you like, but whichever you choose, you should plan to be logged in **on time** and stay for the entire hour. You should have your **camera on** for all Zoom meetings. For audio, it helps to have your own **microphone muted** until you want to speak or ask a question. Most people will have a fan or music or roommates or a lawn mower going in the background and all of this ambient noise adds up.

EXAMS AND GRADING

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Exam 1: Friday, 18 September

Exam 2: Friday, 16 October

Final Exam: Wednesday, 18 November, 2-4pm PST

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The timed midterms will be held via Zoom during our regular lecture periods. You must attend all three exams at their scheduled times, with your camera on so we can see you taking the exam. More specific instructions will be given as the exam dates approach.

If you no-show for an exam and attempt to contact me afterward, do not expect to be allowed a make-up exam.

Your grade for the course will be calculated as follows:

- Homework: 10%

- Discussion classwork: 15%

- Midterms: 20% each

- Final: 35%

Individual exams and quizzes will **not** be curved, except in the rare case of a typo or error in a question that makes the question unsolvable. For record-keeping during the semester, letter grades will be assigned based on standard 10-point intervals (A: 100-90%, B: 90-80%, etc.) with plusses and minuses given appropriately.

At the end of the course, it's **possible** that letter grades may be adjusted to reflect the final distribution of the scores in the class. Such a curve would always be in your favor, else the standard 10-point interval would apply. However, no one will know if such a curve is necessary, or what the curve would be, until all grades are in and all drops are made. Don't bother asking if there will be a curve, because even if I knew, I wouldn't tell you.

POLICIES

Policy on academic dishonesty: Don't cheat. If you have questions about what constitutes "cheating", or what will happen if you are caught, please review the Trojan Integrity Guide, the Undergraduate Guide for Avoiding Plagiarism, or the General USC Policies.

Disability Services: Any student requesting accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to me as early in the semester as possible. DSP is located in 301 STU and is open 8:30am-5:00pm, Monday through Friday.

http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html
213-740-0776 (phone)
213-740-6948 (TDD only)
213-740-8216 (fax)
ability@usc.edu

Notetakers: I often have requests from DSP for well-organized students who are willing to make their class notes available to approved DSP students. The DSP Office typically pays a nominal amount to the notetaker for their trouble. If you are interested in doing this, please contact me or email DSP directly at notetake@usc.edu.