

Math 20A
Calculus for Science and Engineering
Summer Bridge 2021 Syllabus

Instructor: Brian Tran (email: b3tran@ucsd.edu)

Instructor Office Hours (Student Hours): TuTh 11 – 12 pm or by appointment

TA: Nicholas Zhao (email: nizhao@ucsd.edu)

TA Office Hours: M 2 – 3 pm or by appointment.

SI Leaders: Lana Murray (emails: lmurray@ucsd.edu)

Credit Hours: 4

Website: We will have two course websites: [Canvas](#), as well as <http://www.math.ucsd.edu/~b3tran/courses/math20a.html>. You are responsible for checking both regularly for announcements, assignments, etc.

Prerequisite: Summer Bridge with Math Placement Exam Qualifying Score

Catalog Description: Foundations of differential and integral calculus of one variable. Functions, graphs, continuity, limits, derivative, tangent line. Applications with algebraic, exponential, logarithmic, and trigonometric functions. Introduction to the integral.

Textbook: Rogawski, Adams, and Franzosa. *Calculus: Early Transcendentals, 4th Edition*. Published by W.H. Freeman and Company, 2019.

Material: We will cover certain parts of chapters 1, 2, 3, 4, and 5 (see the course schedule for a more detailed breakdown). Note that I will also add material that is not necessarily in the text, so it is essential to attend/watch lectures, as well as reading the corresponding sections in the textbook (it is beneficial to read the textbook section before the corresponding lecture, as well as review it afterward). This is considered part of your responsibility in taking this course.

Lecture: MTuW 9:30 am – 10:50 am. Lectures will be given remotely through Zoom; check the course Canvas website for the Zoom links, under the section “Zoom LTI PRO”. Note that the lectures will be recorded and posted to the course Canvas website afterward. I would appreciate it, if you can, to enable your camera during the lectures to make the course more interactive for everyone involved. Please feel free to ask questions by unmuting yourself at any time or by typing questions in the Zoom chat. You may feel intimidated to ask a question, but you and your peers will benefit from you asking, so please ask questions. Note that attendance for lectures is required as a part of the Summer Bridge program; the course SI Leaders will be taking attendance during lectures.

Discussion Section: A03 F 1:00 pm – 2:20 pm. Discussion sections are useful for discussing material and asking questions (e.g., about the lecture material or about the homework) directly with your TA. Note that, like lectures, attendance for discussion sections is required as a part of the Summer Bridge program and the course SI Leaders will be taking attendance.

Office Hours: My and your TA’s office hours allow us to engage with you directly. These are here for your benefit and you are highly recommended to make use of these resources. Attendance for office hours is not strictly required, although encouraged. If you cannot attend our listed office hours, feel free to email me or your TA and we can schedule an appointment at a different time.

Homework: There will be 5 homework sets, due each week on Tuesday at 11:59 pm. No late submissions will be accepted. The homework sets will be posted to both course websites. The homework sets will consist of both textbook problems as well as problems that I will write; you are encouraged to discuss homework problems with me and your TAs during office hours and discussion sections. You may refer to your textbook (but do not plagiarize). However, you may not discuss or share answers with your peers, since working through the homework yourself is a fundamental part in learning the course material. Submitted homework must be your own original work. Make sure to include your full name, PID, and show all of your work. You will submit your homework on [Gradescope](#); after it is graded, you will be able to view the grade as well as any comments on Gradescope. There are two methods in which you can write and submit your homework:

- You can write out your solutions using a pen and paper. Subsequently, scan your work and submit it as a PDF file. If you choose this method, make sure that your work is neat and legible, as it is your responsibility to make sure that your work is readable by the grader.
- You can write out your solutions electronically, with whichever software that you prefer (as long as the software has the capability of creating mathematical text and you must submit the file as a PDF). Two common choices are: Microsoft Word (using the Insert > Equations option for mathematical text; make sure to save your document as a PDF before submitting) and LaTeX. LaTeX is a typesetting software which allows you to create professional mathematical documents; it may seem difficult at first (its structure is similar to coding) but in my opinion, it is a worthwhile skill to learn, especially if you plan on continuing your career in the mathematical sciences. I have created a LaTeX homework template that you can use for your homework, if you'd like (see the course websites).

Exams: There will be two 60-minute midterms and one 90-minute final. In the allotted time, you must write and submit your exam to Gradescope, without referring to any outside sources (you may not refer to your textbook or the internet) or communication. You are allowed to have a single page of notes (one-sided). You will be given a 12-hour window in which to start your exam. No late exams will be accepted and there are no makeup exams. The exams will be cumulative, in that they will require material covered throughout the course. Exam dates:

- Midterm 1: Week 3, Wednesday, 8/18/21.
- Midterm 2: Week 5, Monday, 8/30/21.
- Final: Week 6, Thursday and Friday, 9/2/21 – 9/3/21.

Exam Regrade Policy: After receiving the grade for your exam on Gradescope, you can request a regrade on Gradescope for a given period of time. For a regrade request, we reserve the right to deduct or add points, so make sure that you are confident in any errors in grading.

Grading Policy: The course grade consists of the homework (30%) with the lowest homework dropped, Midterm 1 (20%), Midterm 2 (20%), and the Final (30%). If your final exam score is higher than one of your midterms, the lowest midterm will be dropped and your final exam will be weighted 50% instead. The grade scale will be:

A+	A	A-	B+	B	B-	C+	C	C-
97	93	90	87	83	80	77	73	70

I reserve the right to adjust this scale to be more lenient if warranted by the overall class performance.

Administrative Deadline: It is your responsibility to ensure that your exam and homework grades are correctly recorded in Canvas. Contact your TA before the last week of instruction to resolve any errors.

Academic Integrity: Academic integrity is expected at UCSD and any academic dishonesty is a serious offense. Any students involved in academic dishonesty (including but not limited to utilizing outside resources, communicating, receiving, or sharing solutions) will face an administrative sanction, which may include a failing grade, suspension, or even expulsion. Please uphold your academic integrity; any academic dishonesty only undermines your and your peers' education. For more regarding academic integrity, please see UCSD's [Academic Integrity Website](#).