

Math 129 Syllabus Calculus II for Engineers and Scientists Lecture 39487D (Leslie)

COURSE INFORMATION AT-A-GLANCE

Math 129: Calculus II for Engineers and Scientists (4.0 Units), Fall 2021

Official Course Description

Trigonometric functions; applications of integration; techniques of integration; indeterminate forms; infinite series; Taylor series; polar coordinates. Engineering and physics applications.

Prerequisite(s): Math 125

Textbook: (Required) Stewart. Essential Calculus, 2nd edition. ISBN 9781133112297 (Recommended) Stewart. Student Solutions Manual for Stewart's Essential Calculus, 2nd edition. ISBN 9781285948188

Note: The student solutions manual contains the solutions of the textbook problems for odd-numbered problems only. Problems assigned for required homework will mostly be drawn from the even-numbered problems. However, the odd-numbered problems are good study material for the quizzes and exams, and the student solutions manual is very useful for checking your work when studying.

Meeting Times, Locations, Instructor

Lecture

1:00pm–1:50pm MWF (Section 39487D), Taper Hall (THH) room 114.

Instructor: Trevor Leslie, lesliet@usc.edu. Assistant Professor (RTPC) of Mathematics.

Office Hours: 2–3pm on Mondays and Wednesdays (starting week 3), and by appointment.

(I will be available for Zoom appointments during the first two weeks.)

Discussion Sections

8:00–8:50am TR (Section 39488R), Grace Ford Salvatori Hall (GFS) room 221.

9:00–9:50am TR (Section 39489R), Kaprielian Hall (KAP) room 165.

Instructor (both sessions): Jiakang Wang, jiakangw@usc.edu. Office Hours: TBA.

Exams and Other Important Dates

Monday, January 17: Martin Luther King Jr. Day—no class
Wednesday, February 16: Midterm Exam #1 (during class)
Monday, February 21: President's Day—no class
March 14—March 18: Spring Break—no class
Friday, April 1: Midterm Exam #2 (during class)
Friday, April 8: Last day to withdraw with a grade of 'W'
Friday, April 29: Last day of class
Saturday, May 7, Final Exam (11am–1pm). This is an 'exceptional time,' according to the Registrar.

The dates and modality of exams is subject to change, according to pandemic-related disruptions and other unforeseen extreme circumstances; barring such circumstances, however, these dates and times should be considered finalized.

COURSE FORMAT AND INSTRUCTIONAL MODE

As of January 7, the University has announced that course meetings for the first two weeks of the semester will run virtually. To attend lecture, log in to Blackboard and click on 'USC Zoom Pro Meeting' and then on the Zoom link associated to the relevant day.

Starting week 3, this course is planned to resume in-person instruction, along with the rest of USC. However, the instructional mode is subject to change according to university directives and instructor health. Lectures will also be streamed live via Zoom (same instructions as above for accessing the meeting), with recordings available on Blackboard. However, students should plan to attend class in person if their health allows it. See below for more details.

Health Policy

All students must abide by the current USC in-class health policy. In particular, masks must be properly worn in class at all times. Failure to do so may result in removal from the class and referral to Student Judicial Affairs and Community Standards.

Attendance

In-person attendance is strongly recommended, *provided* that you are not sick, that you have no symptoms of any illness, and that you do not have a medical reason to be absent. Attendance on any given day is *not required*; however, if your attendance over the course of the semester is so sparse that I don't know who you are by the end of the semester, I reserve the right to impose a small grade penalty (A to A–, B– to C+, etc.).

On the other hand, we are of course in the middle of a global pandemic, which warrants some flexibility in the mode of participation available to the students. For the benefit of those who cannot attend lecture on a given day, the MWF lectures will have a remote participation option, and the lectures will be recorded. This is, however, subject to technological difficulties (see more below). I will also make my lecture notes available to students.

Lecture Notes

I will provide the class with the lecture notes that I prepare before teaching. What I write down on the board will be very similar to the content of these notes. Whether you are attending in person or remotely (but especially remotely), it is recommended that you keep these notes in front of you, to clarify what I've written if you cannot read the board. Lecture notes will be available on Blackboard: Click on 'Content' in the left pane, then navigate to the 'Course Notes' folder.

Online Participation

USC has installed audio-visual equipment in the lecture room, which I will use to attempt to accommodate students who are not in attendance on a given lecture day. Please be aware that the technology is subject to problems, including, but not limited to the following:

- The camera's resolution is such that it takes some effort to read the board, regardless of how far it is zoomed in or out.
- The camera occasionally freezes and stops recording.

I cannot be responsible for the malfunctioning of the equipment. I am providing my lecture notes as a fall-back option for students in case of a malfunction. However, there is a real possibility that some lecture content may not be available online.

Note on weeks 1 and 2: The lecture videos I will provide during the first two weeks of class will be streamed with my own equipment, on my own board. Based on past experience, I am reasonably certain that the video and audio quality will be satisfactory for these videos. (If there are technological difficulties during the first two weeks, I will record the relevant content separately and make it available to students.) However, my equipment is not compatible with the lecture-hall setup and therefore will not be used once in-person instruction resumes.

Other Online Components

- <u>Blackboard</u>. Lecture notes and Zoom meeting links will be available through Blackboard. Blackboard access is available through my.usc.edu.
- <u>Gradescope</u>. You will submit homework assignments through Gradescope. You should have already received an email notification when I added you to the Gradescope roster for this course.
- <u>Campuswire</u>. We will use Campuswire as a discussion board for questions on homework, as well as course logistics. You will be sent an email invitation to join the Campuswire roster.

COURSE CONTENT

This course is the natural continuation of Math 125. It covers the following topics: inverse trigonometric and hyperbolic functions, L'Hôpital's rule for limits, techniques of integration (integration by parts, partial fractions, trigonometric substitutions, etc.), applications to Physics and Engineering, infinite series (both numerical series and Taylor series) and polar coordinates on the plane.

We will cover roughly the following sections in the course textbook (probably not in this order): 5.6–5.8, 6.1–6.6, 7.1–7.6, 8.1–8.8, and 9.1–9.4 (if time).

ASSIGNMENTS AND ASSESSMENTS

Graded work will consist of exams, quizzes, and written homework. Details below are subject to change. <u>Exams</u> (73% of total grade): Two midterm exams will be administered in class. The final exam will be administered per the university's final exam schedule. See page 1 of this syllabus for the dates. Breakdown of exam contribution toward final grade:

- Your best midterm score will count for 23% of your final grade
- Your second-best midterm score will count for 19% of your final grade.
- The final exam will count for 31% of your final grade.

The final examination will be comprehensive, covering all topics presented in the course. Extra emphasis will be placed on the material covered after the second midterm. Make-up exams will be allowed only under exceptional circumstances (including illness) and will be dealt with on a case-by-case basis.

<u>Quizzes</u> (15% of total grade): These will be administered weekly during discussion sections, usually (but not always) on Thursdays. Your lowest score will be dropped automatically.

<u>Written Homework</u> (12% of total grade): Roughly two assignments per week will be assigned and submitted via Gradescope. Your lowest two written homework grades will be dropped automatically. Due dates will usually be on Tuesdays and Fridays at 6pm PST.

Though homework counts for a relatively small percentage of your grade, they are in some sense the most important part of the course. A good deal of your actual internalization of the course concepts will happen while completing homework assignments.

The following policies apply to homework assignments.

Homework Submission and Late Work Protocols and Policies

- All homework assignments should be submitted through Gradescope by the deadline.
- Submit a single .pdf document. If you are handwriting your work on paper (as opposed to on a tablet), there are a number of cell phone apps you can use to take pictures of your work and convert to a single .pdf. Alternatively, you can use a conventional scanner. Please see me if this submission protocol creates a hardship for you (e.g., you don't have a smart-phone or easy access to a scanner).
- Submit the problems in the assigned order, and make sure your pages are in the correct order. Use Gradescope's page-matching procedure to indicate which problems you've written on which pages. Points will be deducted for out-of-order pages.

- Write your work neatly. Points will be deducted for sloppy work. Show your work, but don't include mistakes you made and corrected. Unless you did the problem absolutely correctly on your first attempt, you should probably plan to write a 'clean' version of your solution *after* you initially solve the problem. You are recommended to write each problem on a separate page, to make this process easier.
- Late homework will be accepted with a 15% penalty until 8am on the morning following the deadline. The penalty will be automatically assessed for all assignments submitted after the deadline (even by just a minute). Gradescope will not accept submissions after 8am.
- Reasonable requests for extensions will be considered, if the request is presented by email to the instructor by 12pm on the date of the assignment deadline. In most cases, I will be willing to waive the 15% penalty and allow a late submission to be turned in by 8am the following morning. Requests for extensions beyond that time will be considered but not usually granted, except in extreme circumstances.
- In most cases, the solutions to the assignment will be posted the day following the assignment deadline, or shortly thereafter. Absolutely no submissions will be accepted after the solutions have been posted.

Collaboration and Use of Outside Resources

- You are encouraged to work together with your classmates to solve the homework problems. Your write-up must, however, be your own. If you worked together with someone, please indicate this at the top of your submission. (E.g., "I worked with Terence Tao on Problems 1.2 and 2.3.")
- You are encouraged to post questions (and answers to questions by your peers!) about the homework assignments on CampusWire. (You'll receive an email invitation to join.) Do not request or provide full solutions, however. You have the option to post anonymously on CampusWire. (I will still see who posts what, but your classmates will not.)
- The use of Chegg and similar homework help sites is expressly forbidden. Making posts about homework problems on such sites will be treated as an academic integrity issue.
- One exception to the above rule: You are allowed to make posts on MathStackExchange in connection with this course material, provided that you do not post complete prompts of homework problems. This, however is not encouraged. (MathStackExchange is great for a lot of things, but in this course, I'd rather have you interacting with your peers, either through CampusWire or some other medium.)

Grade Cutoffs

Assuming the average class grade (calculated in terms of GPA) is a B- or better, the end-of-semester grades will be determined using the following table, which is based on USC guidelines.

		B+	88.00-89.99	C+	78.00 - 79.99	D+	68.00-69.99		
Α	≥ 93.00	В	83.00 - 87.99	C	73.00 - 77.99	D	63.00-67.99	F	$<\!60.00$
A–	90.00 - 92.99	B–	80.00 - 82.99	C–	70.00 - 72.99	D-	60.00 - 62.99		

If the class GPA is lower than a B–, the grading scheme will be adjusted accordingly.

Grading Disputes

If you feel an assignment or assessment has been mis-graded, bring it to the attention of your TA and myself within two days of when it is returned to you. The appropriate person will re-grade the entire assignment or assessment—not just the problem in question. Therefore the overall score may go up or down. Grading grievances aired more than two days after they are returned may not be re-graded.

ADDITIONAL COURSE POLICIES

• DSP approved students should inform the instructor at the beginning of the semester for any requested accommodation.

• Final grades will depend entirely on course performance as outlined above. Financial support requirements (e.g., minimum grade requirement for tuition reimbursement) cannot and will not be taken into consideration.

STATEMENT ON ACADEMIC CONDUCT AND SUPPORT SYSTEMS

The information below applies university-wide and is available at https://dornsife.usc.edu/ase/statement-on-academic-conduct-and-support-systems/

Academic Conduct

Plagiarism—presenting someone else's ideas as your own, either verbatim or recast in your own words—is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in SCampus in Part B, Section 11, "Behavior Violating University Standards" policy.usc.edu/scampuspart-b. Other forms of academic dishonesty are equally unacceptable. See additional information in SCampus and university policies on scientific misconduct, https://policy.usc.edu/scientific-misconduct.

Support Systems

Counseling and Mental Health: (213) 740-9355, 24/7 on call.

https://studenthealth.usc.edu/counseling.

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

National Suicide Prevention Lifeline: 1(800) 273-8255, 24/7 on call.

https://suicidepreventionlifeline.org.

Free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week.

 $\frac{\text{Relationship and Sexual Violence Prevention Services (RSVP):}{\text{hours}), 24/7 \text{ on call.}} (213) 740-9355 (WELL) (press "0" after more services (RSVP)) (press "0" afte$

https://studenthealth.usc.edu/sexual-assault.

Free and confidential therapy services, workshops, and training for situations related to gender-based harm.

Office of Equity and Diversity (OED): (213) 740-5086 / <u>Title IX</u>: (213) 821-8298.

https://equity.usc.edu, https://titleix.usc.edu.

Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants.

Reporting Incidents of Bias or Harassment: (213) 740-5086 or (213) 821-8298.

usc-advocate.symplicity.com/care_report

Avenue to report incidents of bias, hate crimes, and microaggressions to the Office of Equity and Diversity /Title IX for appropriate investigation, supportive measures, and response.

The Office of Disability Services and Programs: (213) 740-0776.

https://dsp.usc.edu

Support and accommodations for students with disabilities. Services include assistance in providing readers/notetakers/interpreters, special accommodations for test taking needs, assistance with architectural barriers, assistive technology, and support for individual needs.

USC Campus Support and Intervention: (213) 821-4710.

https://campussupport.usc.edu

Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

Diversity at USC: (213) 740-2101.

https://diversity.usc.edu

Information on events, programs and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

USC Emergency. UPC: (213) 740-4321, HSC: (323) 442-1000. 24/7 on call

https://dps.usc.edu, https://emergency.usc.edu

Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

USC Department of Public Safety. UPC: (213) 740-6000, HSC: (323) 442-120. 24/7 on call https://dps.usc.edu Non-emergency assistance or information.

Office of the Ombuds. (213) 821-9556 (UPC) / (323) 442-0382 (HSC)

https://ombuds.usc.edu

A safe and confidential place to share your USC-related issues with a University Ombuds who will work with you to explore options or paths to manage your concern.