

**Professor:** Nathaniel Emerson

**Homepage:** <https://dornsife.usc.edu/nathaniel-emerson/>

**Email:** [nemerson@usc.edu](mailto:nemerson@usc.edu) please include "Math 226" in the subject line.

**Telephone:** (213) 740-3230. Text (SMS) capable.

**Office:** KAP-406F

**Office Hours:** Monday and Wednesday 1:30-2:50 or by appointment.

**Teaching Assistant:** Ivan Feng

**Discussion:** Tu, Th 2:00 or 3:00 pm in KAP 140.

**Email:** [zhanhufe@usc.edu](mailto:zhanhufe@usc.edu)

**Consulting Hours:** TBD

**Textbook:** *Essential Calculus (2nd Ed.)* by James Stewart [ISBN: 9781133112297].

**Online Resources:**

- Class homepage: <https://dornsife.usc.edu/nathaniel-emerson/226/>
- Blackboard: [blackboard.usc.edu](https://blackboard.usc.edu). Class material and scores for assignments will be posted there. It is the student's responsibility to regularly check these grades for accuracy. Blackboard will also be used to send email announcements to the class. Students should be sure the email address they have registered with Blackboard is one they check regularly.
- Gradescope: [www.gradescope.com/](https://www.gradescope.com/) Homework and classwork will be turned in on Gradescope. All assignments are due by midnight on their due date.
- Zoom: [usc.zoom.us/](https://usc.zoom.us/) This is an in-person class. However if necessary we will meet via Zoom.

**Grades:** Students will be graded on classwork, homework assignments, quizzes, and a final exam.

**Homework/Classwork (11%):** There will be two homework assignments due most weeks; one on Tuesday and one on Thursday. There will be 4 classwork assignment over the course of the semester. Each student's lowest *a*-HW and *b*-HW will be dropped.

**Quizzes (18%):** There will be a quiz given in discussion section on most Thursdays. Generally each quiz will focus on material from the two homework assignments due the week of the quiz. However some quizzes will include material from a homework that has not be on a previous quiz because of holidays. No notes, calculators or collaboration during the quizzes is permitted. Each student's lowest quiz score will be dropped.

**Exams (38%):** There will be in-class exams on Friday, September 29 and November 3. Each student may bring one page of notes (8.5"x11" handwritten on both sides). The use of calculators (or other electronic devices) and collaboration during exams is prohibited.

**Final Exam (33%):** The Final Exam will be given on Wednesday, December 6 from 2:00-4:00 pm. A strictly enforced USC policy prevents any student from taking the final exam prior to the scheduled date. The use of calculators (or other electronic devices) and collaboration during the final exam is prohibited.

**Synchronous Session Recording Notice.** Any lecture or discussion may be recorded at the instructor's discretion. These recording may be made available to the class through Blackboard.

**Goals:** Students should acquire a working knowledge of advanced techniques of Calculus. They should be able to apply these techniques to a variety of problems. They should acquire a knowledge of vector calculus, functions of several variables and vector functions, partial derivatives and their applications, multiple integrals and their applications, Green's theorem, Stokes' theorem, and the Divergence theorem.

**Schedule:** The planned schedule of lectures is given below. It is strongly suggested that students read the relevant section *before* class (looking for the main ideas), attend class and then read the section again with the goal of understanding the details of the section.

Week	Monday		Tuesday		Wednesday		Thursday		Friday	
1	8/21	10.1-2	8/22	Calc Review	8/23	10.2-3	8/24	Vectors	8/25	10.3-4
2	8/28	10.5 lines	8/29	10.1-3	8/30	10.5 planes	8/31	10.3-4 Quiz 1	9/1	10.6
3	9/4	Labor Day	9/5	10.5	9/6	10.7	9/7	10.6 Quiz 2	9/8	Ch 10 Review
4	9/11	11.1-2	9/12	10.7	9/13	11.3	9/14	10.8-9 Quiz 3	9/15	11.4
5	9/18	11.5	9/19	11.1-3	9/20	11.6	9/21	11.4 Quiz 4	9/22	11.7
6	9/25	12.1	9/20	Review	9/27	Review	9/28	Review	9/29	Exam 1
7	10/2	12.2	10/3	11.5-6	10/4	12.3	10/5	11.7, 12.1 Quiz 5	10/6	11.8
8	10/9	12.4	10/10	12.2-3	10/11	13.1	10/12	Fall	10/13	Recess
9	10/16	13.2	10/17	11.8, 12.4	10/18	13.3	10/19	13.1 Quiz 6	10/20	13.4
10	10/23	12.5	10/24	13.2-3	10/25	13.5	10/26	13.4 Quiz 7	10/27	11.7-8
11	10/30	Double Integration	10/31	Review	11/1	Review	11/2	Review	11/3	Exam 2
12	11/6	13.6	11/7	11.7-8, 12.5	11/8	12.6	11/9	13.5 Quiz 8	11/10	Veterans' Day
13	11/13	13.7	11/14	13.6	11/15	13.8	11/16	12.6 Quiz 9	11/17	12.7
14	11/20	13.9	11/21	13.7-8	11/22	Thanksgiving	11/23	Holiday	11/24	Break
15	11/27	Triple Integration	11/28	12.7, 13.8	11/29	Integration Theorems	11/30	13.9 Quiz 10	12/1	Final Review

**Behavior:** Students must strive to create a friendly academic atmosphere in the classroom. Disruptive behavior will not be tolerated. Since making mistakes is a normal part of the mathematical learning process, students are not permitted to make disparaging or hostile comments at any time. *The use of cell phones during class or discussion is disruptive behavior and will not be tolerated.*

## **Academic Integrity**

The University of Southern California is foremost a learning community committed to fostering successful scholars and researchers dedicated to the pursuit of knowledge and the transmission of ideas. Academic misconduct is in contrast to the university's mission to educate students through a broad array of first-rank academic, professional, and extracurricular programs and includes any act of dishonesty in the submission of academic work (either in draft or final form).

This course will follow the expectations for academic integrity as stated in the [USC Student Handbook](#). All students are expected to submit assignments that are original work and prepared specifically for the course/section in this academic term. You may not submit work written by others or "recycle" work prepared for other courses without obtaining written permission from the instructor(s). Students suspected of engaging in academic misconduct will be reported to the Office of Academic Integrity.

Other violations of academic misconduct include, but are not limited to, cheating, plagiarism, fabrication (e.g., falsifying data), knowingly assisting others in acts of academic dishonesty, and any act that gains or is intended to gain an unfair academic advantage.

The impact of academic dishonesty is far-reaching and is considered a serious offense against the university and could result in outcomes such as failure on the assignment, failure in the course, suspension, or even expulsion from the university.

For more information about academic integrity see the [student handbook](#) or the [Office of Academic Integrity's website](#), and university policies on [Research and Scholarship Misconduct](#).

In general, the first incidence of cheating will result in score of 0 on the assignment. While the second will result in a score of 0 on all assignments of the same type.

### **Students and Disability Accommodations:**

USC welcomes students with disabilities into all of the University's educational programs. [The Office of Student Accessibility Services](#) (OSAS) is responsible for the determination of appropriate accommodations for students who encounter disability-related barriers. Once a student has completed the OSAS process (registration, initial appointment, and submitted documentation) and accommodations are determined to be reasonable and appropriate, a Letter of Accommodation (LOA) will be available to generate for each course. The LOA must be given to each course instructor by the student and followed up with a discussion. This should be done as early in the semester as possible as accommodations are not retroactive. More information can be found at [osas.usc.edu](https://osas.usc.edu). You may contact OSAS at (213) 740-0776 or via email at [osasfrontdesk@usc.edu](mailto:osasfrontdesk@usc.edu).

### **Support Systems:**

[Counseling and Mental Health](#) - (213) 740-9355 – 24/7 on call

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

[988 Suicide and Crisis Lifeline](#) - 988 for both calls and text messages – 24/7 on call

The 988 Suicide and Crisis Lifeline (formerly known as the National Suicide Prevention Lifeline) provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week, across the United States. The Lifeline is comprised of a national network of over 200 local crisis centers, combining custom local care and resources with national standards and best practices. The new, shorter phone

number makes it easier for people to remember and access mental health crisis services (though the previous 1 (800) 273-8255 number will continue to function indefinitely) and represents a continued commitment to those in crisis.

[Relationship and Sexual Violence Prevention Services \(RSVP\)](#) - (213) 740-9355(WELL) – 24/7 on call

Free and confidential therapy services, workshops, and training for situations related to gender- and power-based harm (including sexual assault, intimate partner violence, and stalking).

[Office for Equity, Equal Opportunity, and Title IX \(EEO-TIX\)](#) - (213) 740-5086

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

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

[The Office of Student Accessibility Services \(OSAS\)](#) - (213) 740-0776

OSAS ensures equal access for students with disabilities through providing academic accommodations and auxiliary aids in accordance with federal laws and university policy.

[USC Campus Support and Intervention](#) - (213) 740-0411

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

[Diversity, Equity and Inclusion](#) - (213) 740-2101

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

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) 442-1200 – 24/7 on call

Non-emergency assistance or information.

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

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.

[Occupational Therapy Faculty Practice](#) - (323) 442-2850 or [otfp@med.usc.edu](mailto:otfp@med.usc.edu)

Confidential Lifestyle Redesign services for USC students to support health promoting habits and routines that enhance quality of life and academic performance.