

MATH 143: CALCULUS III

Winter 2022

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Course Web Page: https://web.calpoly.edu/~echarala/teaching/143_W22/math_143_W22/

Class Meetings:

- Section 1 (MTRF): 07:10-08:00am (38-218)

Office Hours: T 12:00-1:15pm and R 9:15-10:30am, or by appointment.

Required Textbook:

- *Calculus (Eighth Edition)*, Authors: James Stewart, Publisher: Cengage Learning, 2016 (ISBN: 978-1-285-74062-1)

Objectives: In Math 141 and Math 142 (Calculus I and II, respectively), we studied limits, continuity, differentiation and integration of functions of one (independent) variable. In this course, we will explore more advanced topics such as **calculus in polar coordinates**, **sequences** and **series** including **Taylor series** and applications (thereof), **vector calculus** and operations as well as **curves in 2- and 3-dimensional spaces**. Besides the importance of the topics that we will cover, this course sets the stage for your subsequent coursework in Math 241 (Calculus IV). A detailed course outline containing the learning objectives for this class may be found at

<https://content-calpoly-edu.s3.amazonaws.com/math/1/documents/143.pdf>

Class Material by Section: During the quarter, we will cover most of Chapters 10–13 of the textbook:

- Chapter 10: 10.1–10.4
- Chapter 11: 11.1–11.10
- Chapter 12: 12.1–12.5
- Chapter 13: 13.1–13.4

A tentative schedule is posted on the course web page under “Syllabus and Tentative Schedule”.

Prerequisites: A grade of C- or better in Math 142 or consent of the instructor.

Homework, Quizzes and Exams: In every Mathematics course, it is extremely important you put your best effort towards solving problems and producing high-quality homework. Alongside this, it is also important to learn how to communicate your mathematical reasoning.

There will be online homework assignments and bi-weekly quizzes in WebAssign: <https://www.webassign.net/>. A **class key** was sent to you that you should use to have access. **No late homework and quizzes will be accepted.** Although the homework is online this quarter, I would strongly recommend you make copies of your solutions and keep them in a binder so that you may easily reference that when you are studying for an exam.

Of course, struggling through a question in the homework is not something unusual. Mathematics is all about **study** and **practice** and the only way to learn is for you to work through any difficulties. With that said, and before you make an attempt to solve the homework problems, make sure that you write the accompanying theory down on a piece of paper as many times as possible until you master it. Then, come back to the problems in the homework assignment and attempt to solve them. Such a way of studying will not only help you to create your own study guide but to understand the material in depth. Keep in mind that in order you to get the best grade you can, the first step is to do every assignment to the fullest extend of your ability. However, if you still need help, I strongly encourage you to make use of my office hours (think of them as free tutoring).

There will be **two in-class midterm exams** and **one cumulative final**. For their schedule, see below the “Important Dates” section of this document. Before **the exams**, I will hold outside the regular class time review sessions according to:

Review session for midterm #1	Tuesday, January 25 (TBA)
Review session for midterm #2	Tuesday, February 22 (TBA)
Review session for final	Friday, March 11 (TBA)

In all review sessions, we will be solving practice problems and past exams. Most importantly, please collect any of your questions and I would be more than happy to answer them! In the realm of all exams, make sure you download the **review notes** and **practice problems** from the course web page under “Review notes and Practice Problems”.

Note that no makeup midterms will be given. In addition, further details about the policies of the final exam can be found by visiting the link:

<https://academicprograms.calpoly.edu/content/academicpolicies/final-exams>

Grading Policy and Exams: Your final grade in this course is computed according to:

Homework	25%
Quizzes	5%
Midterm #1	20%
Midterm #2	20%
Final Exam	30%

Important Dates:

Midterm #1	Friday, January 28
Midterm #2	Friday, February 25
Final Exam (Section 1)	Monday, March 14, 07:10–10:00am

Exams and Class Policies:

- Exams are primarily based on the material we cover in class, homework and quizzes.
- Absolutely no formula sheets, class notes and calculators are allowed during midterm and final exams.
- Please go through the cheating and plagiarism procedures by clicking [here](#).
- Learning and memorizing formulas takes time. Do not postpone this until the last minute.
- **Attendance is mandatory.** However, an **excused absence** can be allowed only if the reason for your absence falls into any of the categories listed in the following page:

<https://academicprograms.calpoly.edu/academicpolicies/class-attendance>

Please inform me as soon as possible if you are seeking to make up missed work pursuant to the excusable reasons listed in the url above.

Students with Disabilities: The University provides disability-related support services to qualified students through the Disabilities Resource Center (DRC). If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both me and the DRC (124-119) at (805) 756-1395, as early as possible in the term. In addition, and for your convenience, their website is <https://drc.calpoly.edu/>. Note that use of DRC services including testing accommodations requires prior authorization by the DRC and compliance with approved procedures. **Make sure you initiate any needed arrangements well in advance of an exam date.**

Diversity and Inclusion: I am fully committed to an academic environment that is free of bias against any group and I firmly believe in the value of diversity in people and ideas. My ultimate goal is to establish that this class is a welcoming environment to every-one regardless of gender identity, sexual orientation, race, ethnicity, or religious identity. The University and I do not tolerate discrimination. Please feel comfortable coming to me or an administration if at any point you ever feel uncomfortable for any reason.

COVID-19 Compliance, Classroom, and Campus Safety:

Cal Poly is committed to protecting the health and safety of the campus community. Taking preventative steps, as well as monitoring your health and staying home if you are feeling unwell, will help protect the entire Cal Poly community.

By participating in this course, you agree to abide by all campus safety protocols. Please note that safety protocols may change throughout the quarter. You must follow all protocols as outlined in the most recent campus updates including:

- **Vaccination:** All students, faculty, and staff who access campus, or any CSU facilities, are required either to be fully vaccinated or to qualify for a medical or religious exemption.

- **Face Coverings:** Per Cal Poly policy, you must always properly wear a face covering in the classroom, regardless of vaccination status. If you are seen in class **without** a face covering or are wearing it improperly, you will be invited to put one on or be reminded to wear it properly. Acceptable face coverings must:

- Completely cover the nose and mouth.
- Fit snugly against the side of the face with secured ties/ear loops.
- Allow breathing without restriction.
- Be clean and undamaged. Wash your hands before putting on a face covering.

If you do not have a face covering with you, you will be asked to visit the nearest sanitation station to get one and then return to class. If you refuse to wear a face covering in the classroom, you will be asked to leave. Students not in compliance with face covering requirements also may be reported to the Office of Student Rights and Responsibilities (<https://osrr.calpoly.edu/>). While campus policy states, “Individuals do not need to wear a face covering while alone in their residence or personal/private office, or while eating or drinking,” eating and drinking will not be permitted in the classroom. More information on face covering requirements is available on the Face Coverings webpage (<https://coronavirus.calpoly.edu/face-coverings>).

Testing and Compliance

Unvaccinated students must participate in ongoing COVID-19 testing and reporting as required by the University. Check the COVID-19 Info tab on your portal daily to determine your testing requirement and compliance status. If you are required to participate in ongoing testing, be reminded that **it is your responsibility to do so**. More details are available on the COVID-19 Testing webpage (<https://coronavirus.calpoly.edu/covid-19-testing>).

Failure to comply with testing requirements may result in restrictions from campus services, spaces, and applications, including access to the Cal Poly Portal, Canvas, and Zoom. You will receive several notifications before restrictions occur; please heed those notifications and alert me in advance of restrictions from campus applications. Be reminded that University policy:

<https://www.catalog.calpoly.edu/universitypolicies/#emailanofficialmeansofcommunicationtostudents>

states, “campus email is an official method of campus communication to students and may be used as the sole method of communication for some campus matters.” Campus policy will be followed, and communications will be initiated through Cal Poly email. An absence, including any late or missed work, due to testing non-compliance restrictions may be considered unexcused and is subject to the course attendance and make-up work policies.

Daily Symptoms Screening

You must complete the **daily health screening by noon (12 p.m.) or before arriving on campus, whichever comes first**, to receive a campus pass, regardless of vaccination status. Upon completion of the daily health screening, you will receive a daily campus pass. Note that having a blue pass does not fall within the University’s attendance guidelines for excused absences. Absences due to a blue pass are therefore subject to course attendance and make-up work policies. Please visit the COVID-19 Daily Self-Screening webpage:

<https://coronavirus.calpoly.edu/covid-19-self-screening>

for more information on the campus pass.

Please follow current health and safety guidelines, monitor yourselves for COVID-19 symptoms, stay home if you have any COVID-19 symptoms, and get tested if you are symptomatic or learn that a close contact has been infected. Learn more about protecting your health and well-being while on campus by visiting the university Coronavirus Information webpage:

<https://coronavirus.calpoly.edu/>