

Math 104 – Vector Analysis

Spring 2022

Instructor: Dr. Corey Shanbrom

Email: corey.shanbrom@csus.edu

Office: Brighton 125

Office Hours: Mon 10-11am, Wed 3-4pm, Thurs 1-2pm, or by appointment.

Every student is encouraged to come to my office hours!

Prerequisites: Grade of C- or better in Math 32.

Website: We will regularly use a Canvas page for this class. Visit canvas.csus.edu.

Lectures: MWF, 1-1:50pm; BRH 201. This is a face to face course, but the first two weeks will be held virtually via Zoom. See Canvas for the Zoom link.

Text: There is no required or official textbook for this course. You will learn everything you need to know by coming to class and completing all assignments. However, we will roughly be following *Vector Calculus, 6th ed*, by Marsden and Tromba. I recommend buying this book if you can afford it – it contains excellent pictures, examples, and explanations, and will serve as a good reference in your future. Older editions are much cheaper and just as good. I also recommend the associated *Study Guide* (6th ed). I have posted two free Calculus 3 texts to Canvas; these contain some bits of vector analysis.

Grading: Homework 25%, Midterms 30%, Final 30%, Special Assignments 15%, This is an approximation. Letter grades will be determined by a curve at the instructor's discretion. Detailed instructions for special assignments will be provided later in the semester. These may include exam corrections or group projects.

Exams: There will be two midterms, each worth about 15% of your final grade. No notes, books, electronic devices, or bathroom breaks will be permitted during any exam. Exam make-ups will be permitted only in the case of a documented emergency. Midterm dates will depend on our progress, but will be announced at least one week before the exam. The final will be comprehensive and held Monday, May 16, 12:45pm-2:45pm.

Homework: Problems will be assigned weekly and will be due in class every Wednesday. Assignments will be posted to Canvas. Many problems will be assigned – only some will be graded. Exams will include HW problems. Late HW will be accepted at a penalty. Take your homework seriously --you will learn more by struggling with homework problems and reading my feedback than you will by sitting in class.

Remarks: If you have a disability and require accommodations, you need to provide disability documentation to SSWD, Lassen Hall 1008, and discuss your needs with me as soon as possible.

If you are experiencing challenges in the area of food and/or stable housing, Sacramento State offers basic needs support for students. Visit csus.edu/basicneeds.

Cheating of any type will result in disciplinary action and an automatic fail. If you are unsure what constitutes cheating, please see Sac State's Academic Honesty Policy; I have provided a link on Canvas.

University Policy Manual Course Syllabus Policy, Policy File Number ACA-170, Section VII Syllabi Required Elements:

A. Vector Analysis. Math 104. 3 units. Course Description: “Vector and scalar fields, integral theorems, orthogonal curvilinear coordinates, vector spaces and linear transformations, applications to physical fields and operators.” Approved Course Learning Outcomes: “?????” Department of Mathematics and Statistics. College of Natural Sciences and Mathematics.

B. Attendance is not required, except for exams and the first week of classes. Homework is accepted late at a 25% penalty.

C. This course adheres to the [Academic Honesty Policy](#).

D. This course adheres to the [Hornet Honor Code](#).

E. 1. Sacramento State is committed to ensuring an accessible learning environment where course or instructional content are usable by all students and faculty. If you believe that you require disability-related academic adjustments for this class, please immediately contact Services for Students with Disabilities (SSWD) to discuss eligibility. A current accommodation letter from SSWD is required before any modifications, above and beyond what is otherwise available for all other students in this class will be provided. 2. Your physical and mental health are important to your success as a college student. Student Health and Counseling Services (SHCS) in The WELL offers medical, counseling, and wellness services to help you get and stay healthy during your time at Sac State. SHCS offers: Primary Care medical services, including sexual and reproductive healthcare, transgender care, and immunizations; urgent care for acute illness, injuries, and urgent counseling needs; pharmacy for prescriptions and over-the-counter products; mental health counseling, including individual sessions, group counseling, support groups, mindfulness training, and peer counseling; athletic training for sports injury rehabilitation; wellness services, including nutrition counseling, peerled health education and wellness workshops, and free safer sex supplies; violence and sexual assault support services. Most services are covered by the Health Services fee and available at no additional cost. 3. If you are experiencing challenges with food, housing, financial or other unique circumstances that are impacting your education, help is just a phone call or email away. The CARES office provides case management support for any enrolled student.

F. You are welcome but not required to use technology in the classroom that assists with note-taking or problem solving. Please do not record me or your classmates in any form without permission. Please refrain from using technology for non-academic purposes (games, social media) as it is distracting to your classmates.

Covid Info:

- Campus health and safety protocols regarding COVID-19 will be updated to match county, state, or CSU system standards. Please comply with campus requirements/protocols for vaccine certification and testing, indoor masking, physical distancing, COVID-19 symptom screening, contact tracing, and other safety measures to minimize the spread of COVID-19.
- Current campus rules can be found at: <https://www.csus.edu/academic-affairs/academic-continuity/specific-faq.html>
- Masks are required for everyone, including the instructor, until the indoor mask mandate ends. According to the university, refusal to wear a mask is disruptive to the learning environment, and the [Disruptive Student Behavior Policy](#) will apply.

- If you have [any COVID-19-related symptoms](#) or you are unvaccinated and have come into close contact with someone who has a confirmed positive COVID-19 test, please contact the Student Health Center or your medical provider. Do not come to class until you have tested negative or have received clearance from the Student Health Center.
- Illness due to COVID-19 or exposure to a confirmed positive individual that requires quarantine or isolation is a qualifying emergency and late work or make-up exams will be allowed in consultation with me.
- If you are hard of hearing or a lip reader please let me know so that I can choose my mask accordingly.
- If you wish to confer privately with me about your vaccination, exposure, or positive test status, you should first affirm that you are voluntarily disclosing your medical information. Any information you share with me will be treated securely and only be shared with the Student Health Center to follow established safety protocols.