

Math 31 – Calculus II

Spring 2022

Instructor: Dr. Corey Shanbrom

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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 30 or appropriate high school based AP credit. It is your responsibility to prove to me that you have met this prerequisite by the end of the first week of classes; any student who fails to do so will be dropped.

Lectures: MWThF, 12-12:50pm; 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.

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

Text: There is no required text for this class. The official text is Calculus, Early Transcendentals, James Stewart, 8th edition. This is the official text, but it is not necessary to succeed in this course. In fact, almost any other modern calculus book (including older editions of Stewart) will suffice. We will not be using any text directly, as this is a lecture-based course with online homework. However, I do recommend owning some calculus book for the nice pictures and worked examples. Further, we will be covering chapters 5-8 and 11 of Stewart and following the book's structure fairly closely. Also note that future calculus courses may require the 8th edition of Stewart.

Grading: Homework 25%, Midterms 45%, Final 30%. This is an approximation. Letter grades will be determined by a curve at the instructor's discretion.

Exams: There will be three midterms, each worth 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 illness or emergency. Midterm dates will depend on our progress, but will be announced at least one week before each exam. The final will be comprehensive and held Wednesday, May 18, 10:15am-12:15pm.

Homework: Your homework answers are submitted and graded online using WeBWorK, which you can access through our class Canvas page. Some problems are multiple-choice, some require entering a numerical answer. Detailed instructions appear on another document, called "How to submit your homework." Problem sets will be available on WeBWorK. Due dates will be announced in class and also posted to both Canvas and WeBWorK. A detailed solution to each problem will be available immediately after submitting your answer to that problem. Complete solutions to problem sets will be available after the due date. Certain problems will require a basic calculator.

You must also turn in written work for each problem by the assignment's due date. I will skim this and provide some feedback on the quality and clarity of your work, as I would on an exam. Exams are not multiple choice, and these will be graded partly on the quality and clarity of your work. You must submit complete written work to earn full credit for each homework assignment. Late written work will be accepted at a penalty.

Spring 2022: Since the first two weeks of the semester are virtual, written work for the first two assignments will be submitted online. See "How to submit your homework" on Canvas for details.

Math Lab: The Math Lab (virtual and in person) offers free drop-in tutoring from math majors and grad students. It is open M-Th 9am-5pm and F 9am-1pm. In person: BRH 118; Virtual Zoom meeting ID: csusmathlab.

Peer Assisted Learning (PAL): There are optional sections (NSM 12F) that students can take concurrently with Math 31. These are offered several times per week (see class schedule). NSM 12F is a one-unit course, graded Credit/No Credit, which is facilitated by undergraduate students who have successfully mastered the material in Math 31. In these PAL sections, Math 31 students work in small groups on worksheets dealing with the course topics.

Strongly recommend taking a PAL to all students. Data show an average boost in course grade of 23%, regardless of demographics, background, etc.

Even if you do not enroll in NSM 12F, you may still go to the PAL facilitator office hours for help. PAL office hours are held in SQU 313 (inside SQU 315) and the times will be posted on Canvas and outside my office and SQU 315 when they become available.

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. This will show up on future background checks, grad school applications, etc. 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. Calculus II. Math 31. 4 units. Course Description: “MATH 30 continuation. Methods of integration; improper integrals; analytic geometry; infinite sequences and series.” Approved Course Learning Outcomes: “Understand the indefinite integral as the inverse of differentiation, know the basic rules and techniques of integration (including the method of substitution, integration by parts, and trigonometric substitutions), and use these rules to evaluate antiderivatives. Extend the Riemann integral to improper integrals with unbounded functions and domains of integration. Know the definition, graphs, derivatives and antiderivatives of the inverse trigonometric functions, hyperbolic functions and the inverse hyperbolic functions. Know the definition for convergence and divergence of infinite sequences and series and apply these definitions to elementary sequences and to geometric and harmonic series. Know the integral test, comparison test, ratio test, and alternating series test for convergence of infinite series and apply these test to standard series. Find the power series of a function, determine the radius of convergence and the interval of convergence (including end point convergence) of a power series, and determine the error term for a function and its power series.” General Education Area B4 (Mathematical Concepts and Quantitative Reasoning) Learning Outcomes: “Students will be able to solve problems by thinking logically, making conjectures, and constructing valid mathematical arguments. Students will be able to make valid inferences from numerical, graphical and symbolic information. Students will be able to apply mathematical reasoning to both abstract and applied problems, and to both scientific and non-scientific problems.” This is an area B4 GE course and has a writing component. To satisfy the writing requirement graded assignments involving writing and understanding of complex technical prose, interpretation of theoretical ideas, and the use of mathematical ideas will be part of the course. 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. Online homework is not accepted late except in case of documented emergency, as all solutions are posted on the due date. Written 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, peer-led 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.