

MATH 30: SPRING 2019 CALCULUS I

Lectures:

Section 1:

Mondays, Wednesdays, and Fridays, 8-8:50am, Room 204, Brighton Hall
and Tuesdays, 8-8:50am, Room 214, Brighton Hall

Instructor:

Michael VanValkenburgh
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Office Hours:

Mondays 9-10am, Tuesdays 12-1pm, Wednesdays 11am-noon, and Fridays
9-10am. Also by appointment. Please visit :)

Textbooks: I highly recommend the classic: Calculus (Early Transcendentals), by James Stewart (you can use as old as the 5th edition). Another good resource is OpenStax Calculus, Volume 1: <https://openstax.org/details/books/calculus-volume-1>

Prerequisite: Math 29 or four years of high school mathematics which includes two years of algebra, one year of geometry, and one year of mathematical analysis; completion of ELM requirement, Calculus Readiness Diagnostic Test, and/or score of 76 or higher on the ALEKS PPL placement assessment.

Peer Assisted Learning (PAL) Program: I strongly recommend that you enroll in one of the following (one-unit) PAL classes for Math 30, to get further help from your peers (working in groups, etc.).

NSM 12E-02 TR 12-12:50pm, ALP 205

NSM 12E-03 MW 2-2:50pm, BRH 201

NSM 12E-06 TR 3-3:50pm, SQU 450

NSM 12E-07 MW 10-10:50am, MND 4005

“On average, students in PAL earn a *15% bump in class grade.*”

Learning Outcomes: To understand:

- the concept of a limit and how to calculate certain limits.
- the definition of the derivative and geometric interpretations.
- how to use the Product Rule, Quotient Rule, and Chain Rule to calculate derivatives (the “calculus of derivatives”).
- how to use derivatives to interpret graphs of functions and solve word problems.
- how to find the antiderivative of a function.
- the Fundamental Theorem of Calculus.

Grading Policy:

25% Quizzes
15% Hour Exam 1
15% Hour Exam 2
15% Hour Exam 3
30% Cumulative Final Exam

Homework, Classwork, Quizzes, and Reading Assignments:

You are expected to read the relevant sections of the book, as listed on the class webpage.

I will post book problems that I expect you to do as homework. We will have regular in-class quizzes (usually weekly) with problems very similar or identical to the homework problems. We will also have time to work on problems in class (in groups or alone), as I walk around and provide help.

The best way to prepare for exams is to do the homework on your own and give a good effort on the quizzes. Consider them as short practice exams (and I will grade them just like exams).

Writing Requirement: This is an area B-4 general education course and has a writing requirement. Throughout the semester, you will be asked to provide written responses to certain questions on quizzes, exams, and in-class worksheets.

Area B-4 Mathematical Concepts and Quantitative Reasoning Student Learning Outcomes: Students will be able to:

- (1) Solve problems by thinking logically, making conjectures, and constructing valid mathematical arguments.
- (2) Make valid inferences from numerical, graphical and symbolic information.
- (3) Apply mathematical reasoning to both abstract and applied problems, and to both scientific and non-scientific problems.

Exams:

- Exam One: Wednesday, February 13
- Exam Two: Monday, March 11
- Exam Three: Monday, April 22
- Final Exam:
Monday, May 13, 8-10am.

Exam Protocol:

- You will need pencils/pens and erasers, nothing more. Keep all devices capable of communication turned off and out of sight. Calculators are not permitted.
- Solutions to each exam will be posted promptly after the administration of the exam. You are encouraged to look at the solutions while the exam is still fresh in your mind.
- The final exam will be cumulative, but extra emphasis will be given to material covered after the third exam.
- Do not make arrangements to leave campus prior to the final exam.

Resources:

- the Math Lab in Room 118, Brighton Hall
- PAL sections

Drop Policy: www.csus.edu/math/documents/policies/drop.pdf

Accommodations:

If you have specific physical, psychiatric, or learning disabilities and require accommodations, please let me know early in the semester so that your learning needs may be appropriately met.

Absences:

You are held responsible for all work missed during absences. Late homework and make-up exams will only be allowed under rare circumstances, and, moreover, only with my explicit written consent.

Basic Needs Support:

If you are experiencing challenges in the area of food and/or stable housing, help is just a click, email or phone call away! Sacramento State offers basic needs support for students who are experiencing challenges in these areas. Please visit our Basic Needs website to learn more about your options and resources available. <https://www.csus.edu/basicneeds/>