

Math 30 – Calculus I

Spring 2016

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Office Hours: Monday 2:30-3:30pm, Wednesday 10:30-11:30am, and Thursday 1:30-2:30pm, or by appointment

Prerequisites: 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 *and* a passing Calculus Readiness Test (CR) score. Enrollment in Math 30 (with a letter grade) in the previous semester is also acceptable. A CR score of 41 is passing; a score of 36-40 is advisory qualification and admission is left to the instructor's discretion. The last day to take the exam is January 29. Any student who does not demonstrate a passing CR score by Wednesday, February 3 may not take this class.

Lectures: Section 07: MWTh 4-5:15pm in BRH 203

Text: There is no required or official text for this class. 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.

If you already own Calculus, Early Transcendentals by James Stewart, this book will serve as an excellent reference. We will be covering chapters 2-5 of Stewart and following the book's structure fairly closely. Note that future calculus courses may require the 7th edition of Stewart, but older editions will suffice for this class.

Any other modern calculus book should serve as a fine reference for this class. If you do not own any calculus book, I recommend APEX Calculus by Hartman, et al, which is available for free download at apexcalculus.com. You want Volume 1; any edition is fine. You can buy a printed paper copy of this book for \$16 at the Hornet Bookstore. Even if you already own a calculus book, I recommend downloading/buying this free/cheap book.

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 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 Wednesday, May 18, 3-5pm.

Homework: Homework answers are submitted and graded online, accessed through SacCT. All problems are multiple-choice. Detailed instructions appear on another document, entitled "Submitting Your Homework Using SacCT." Free SacCT training workshops are provided by IRT. Problem sets will be available on SacCT. Due dates will be announced in class and also posted to SacCT. A solution to each problem will be available immediately after submission. Completion of 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. You must submit complete written work to get full credit for the assignment. Late homework will be accepted at a penalty.

Resources: I am your primary source for help with the material, but other resources are available. The Math Lab in Brighton 118 offers free drop-in tutoring from math majors, grad students, and sometimes faculty. It is open M-Th 9am-5pm and F 9am-1pm. You can and should form study groups; these can meet in the Math Lab as well. Other textbooks and websites (eg, Wikipedia, Mathworld, even Youtube) are helpful.

Peer Assisted Learning (PAL) Sessions: There are optional adjunct sections (NSM 12E, Peer-Assisted Learning MATH 30) that students can take concurrently with Math 30. These are offered several times per week (see class schedule.) NSM 12E is a one-unit course, graded Credit/No Credit, which is facilitated by undergraduate students (PAL facilitators) who have successfully mastered the material in Math 30. In these PAL sections, Math 30 students will work in small groups on worksheets dealing with the course topics. Spaces in NSM 12E are limited and are filled on a first-come first-served basis.

Even if you do not enroll in NSM 12E, you may still go to the PAL facilitator office hours for help. Office hours of the PAL facilitators are held in SQU248 and the times will be posted outside the door of SQU 248.

Catalog Description: Functions and their graphs; limits; the derivative and some of its applications; trigonometric and hyperbolic functions and their inverses; the integral; the fundamental theorem; some applications of the integral.

General Education:

GE Area: B4 (Mathematical Concepts and Quantitative Reasoning)

Writing Component: This class has a writing component. This means that you will have to write. On every exam you will find questions that require a few sentences explaining a concept, theorem, or method.

Learning Outcomes: Solve problems by thinking logically, making conjectures, and construction valid mathematical arguments. Make valid inferences from numerical, graphical, and symbolic information. Apply mathematical reasoning to both abstract and applied problems, and to both scientific and non-scientific problems.

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.

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 SacCT.