

Math. 34A, Winter 2013, TR 8-9:15, Chuck Akemann

Prof. Chuck Akemann, South Hall 6706
Hours M 1:30-3:30, phone 805-518-9555
e-mail: akemann@math.ucsb.edu

We are paid to help you learn.
PLEASE use CLAS, our
office hours and Math Lab.

Head TA: Ben Cote
Office and hours: TBA
E-mail:

The text is Calculus and Mathematical Reasoning for Social and Life Sciences, SECOND PRINTING, by Daryl Cooper. The text is available in the bookstores. Please bring the text to each discussion section. This allows us to do problems from the book without taking the extra time to write them on the board. In addition to our office hours, you can seek help at the Mathematics Lab, Monday-Friday, 12-5 PM, South Hall 1607, starting later in the first week of classes. Mathematics graduate students are there during these hours to answer questions. CLAS (clas.ucsb.edu) has instructional groups associated with this class, and drop-in tutoring is also available. I also strongly encourage you to form study groups to work on the homework. Explaining mathematics is the best way to learn it well.

The course outline for the quarter is shown on the other side of this sheet. Homework must be done on Webwork, which you reach via the course page on Gauchospace. Webwork does not require explanation, **but work must be shown and explained on exams**. Therefore you should save your homework calculations, diagrams, etc. in a place where you can use them to study for exams. Problems will be solved in lecture and in discussion section to give you proper models for your exam answers.

It is very helpful if you have read each section of the text before the lecture that covers it. I encourage you to make a time budget for all of your classes. That way you know how much time you have left for non-academic activities.

For most students the homework will count 30%, first midterm will count 15%, the second midterm will count 15%, and the final exam will count 40%. **However, your grade in the course will never be less than your grade on the final exam.** The final exam will be long and will cover the entire course. All exams will emphasize word problems that are like homework problems. Exam and homework grades will be calculated according to the following percentage table. **There is no "curve" grading.** Infinity-102=A+, 101-93=A, 92-90=A-, 89-88=B+, 87-82=B, 81-80=B-, 79-78=C+, 77-72=C, 71-70=C-, 69-68=D+, 67-62=D, 61-60=D-, 59-0=F. Since every exam (and the homework) will have extra credit points on it, it is easier to get an A+ than it might appear. There have always been A+ students in my classes.

Calculators are strongly encouraged at all times, including all exams. Get a good one, learn how to use it, and bring it to class and discussion section if you like. However, calculator skill is not a substitute for understanding what is going on. In particular, quoting your calculator on an exam (other than for routine arithmetic calculations) will **never** be a substitute for showing your work or explaining what you are doing.

General Exam Information

The following instructions apply to all exams, including the final exam.

1. Each problem will be worth 3 points. Partial credit is proportional to work correctly done and explained. Answers, even correct answers, with no explanation will get 0. Most test questions will be word problems.
2. Calculators are allowed (**NOT** required) on all exams, but you can't get credit just for quoting your calculator. You must explain what you are doing and show your work. Answers need not be simplified unless that is specifically stated in the problem. Otherwise you may leave answers in terms of logs, square roots etc.
3. You may bring a 3"x5" note card with anything you want written on it. No other notes of any kind are allowed. Do not store notes in your calculator.
4. Try very hard to arrive 3-5 minutes early on test days so that you have the full time to work.
5. **The penalties for cheating on a test are an F in the course and (usually) 2 quarters suspension from school. Also you can forget about getting into a good major, or med school or law school or The cost/benefit ratio approaches infinity. BE WARNED!**

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DAY BY DAY LECTURE AND EXAM PLAN:

Not all sections will be discussed in class, but you are responsible to read them and do any homework. Always read the introduction to each chapter. It is best to read the sections in the text before the lecture covering those sections

DATE	
1/08	Please read pages 2-3 and 247-254; they contain <u>very</u> useful advice. Sections 1.1, 1.2, 1.3, 1.4, 1.5.
1/10	Sections 1.6, 1.7, 1.8, 1.9 (omit 1.7.2).
1/15	Sections 3.1-3.2
1/17	Sections 5.1, 5.2, 5.3
1/22	Review for test. Also Section 6.1 (not on first test)
1/24	First midterm. Covers Chapters 1, 3, 5 only
1/29	Sections 6.2-6.4
1/31	Sections 7.1-7.7.
2/5	Sections 7.8-7.14
2/12	Sections 8.3, 8.4
2/14	Sections 8.5, 8.6
2/19	Sections 8.7, 8.8
2/21	Sections 8.9, 8.10
2/26	Sections 8.11, 8.12
2/28	Section 8.13
3/5	REVIEW
3/7	Second midterm. Covers chapters 6-8 and the homework problems from Chapter 11.
3/12	REVIEW, Sections 10.1-10.2. Omit from the last 3 lines of p. 179 thru the first 5 lines of page 181.
3/14	REVIEW
3/21	FINAL EXAM, 8-11 AM, IN OUR LECTURE ROOM. Comprehensive. Covers entire quarter.

MATH. 34A TEXTBOOK ERRATA LIST 9/8/03)

- p. 31: problem 1.7.2, figure is inconsistent. Ignore problem.
- p. 85, 6.2.5 The rate a certain disease spreads is JOINTLY proportional to...
6.2.7 The MASS of a sphere...
- p. 89, 6.4.1 Refer to the above world population example ***6.3.1*** .
- p. 144, line 14, losing
- p. 185, problem 10.2.64, line 1, second "is" should be "in".
- p. 297, 1.3.7 (a) ... (b)... (c) 15%, 1.5.1(d) a^4 , (e) x^2 , (f) t^{13} , 1.5.2(c) $1/4$ if $x > 2$, $-1/4$ if $x < 2$, undefined if $x = 2$, 1.5.14 add the following: if $s+t=0$, then any number is a solution. If $s-t-1 = 0$, then no solution exists.. 1.7.2 Ignore this problem.
- p. 298, 4.1.8 a) approx. 2.52×10^{13} miles, b) approx. 1989 miles, c) approx. 4.62×10^7 miles, 3.2.33 solution is Total Money = $200M(20-M)(\$20)$; 3.2.38 1600π meters/minute
- p. 299. 5.1.2c limit does not exist
- p. 300, 7.13.45a $100\sqrt{2}$
- p. 301, 8.13.4 $10,000 \text{ m}^2$, 8.11.2 $y=(\ln(10))x + 1$.