

**Math 3C, Lecture 2**  
2-2:50 MWF, Psychology 1824  
Winter 2003

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**Website:** [www.math.ucsb.edu/~ituba/math3c](http://www.math.ucsb.edu/~ituba/math3c)

**Texts:** Jeff Stopple: Math 3C Reader and Farlow-Hall-McDill-West: Differential Equations & Linear Algebra, Chs. 1 and 2.

**Discussion sections** are mandatory. The idea is that you ask questions and hopefully participate in solving them. Questions need not be of the “Can you do number ... on the HW?” type.

**Homework** will be assigned at the end of each class and posted on the board next to my office. You need not turn it in, but you should still do it because the same problems will show up on the quizzes and similar ones will be on exams.

You should plan on spending at least 8 hours/week on HW. You may work in groups, in fact it's probably to your advantage to talk to fellow students. I recommend that you write up the solutions as if you had to turn in the HW because this will give you a chance to practice writing math, an essential skill on quizzes and exams. It's best to do this on your own.

**Quizzes** will be given every week in discussion sections and sometimes in lecture. They will consist of a problem straight from the HW and two true/false questions. You won't know in advance which problem from the HW, so you should attempt all HW problems beforehand to maximize your chance of success. The more problems you do at home, the more likely you are to see a familiar one on the quiz. The quizzes in section will cover HW assigned thru the preceding Mon, and the quizzes in class will have a problem from the HW assigned two or more lectures ago.

There will be no make-up quizzes, but your three lowest quiz scores will be dropped. This is so you can skip a quiz for good reason (illness, field trip) three times without penalty. I don't recommend using this for taking a holiday.

**Exams:** There will be a midterm in class, on Feb 10. There will be no make-ups. If you are sick that day, bring a note from your doctor and we will average your grade from the rest of the exams + quizzes. The final is 7:30-10:30 PM, Mar 17. If you miss it for a good reason, you may file for an incomplete until Mar 21. You must bring your student ID to the exams.

**Anything you turn in** must have your name, perm number, and section time. If any of this information is missing, your score on that particular won't be recorded. If you want it recorded, you will have to write a one-page paper explaining what prevented you from providing all of this information and what you plan to do in the future to avoid this problem.

**Review sessions** will have the same format as office hours. You will need to ask questions you would like answered. I won't tell you what you need to know and what you don't need to know for the exams.

**Grading scheme:**

|          |     |
|----------|-----|
| Quizzes: | 25% |
| Midterm: | 30% |
| Final    | 45% |

Your total score will be curved, but not the individual exams.

**Calculators** are a great thing and will sometimes be helpful in doing HW. A simple one will do more than you need. They won't be allowed on the exams though. Having to do your own computation should encourage you to develop analytical skills rather than key-punching skills.

**Computation:** You learned to do long-hand addition, subtraction, multiplication, and division in elementary school. We will assume you still know how to do them although most of the time you won't need them. E.g. you could use long-hand division to compute  $10.5/3.5$ , but you really don't need it. Also, it's easier to compute  $4/(2/7) = 14$  than  $4/0.2857$ , if you know what I mean.

**Checking your answer** will sometimes be part of exam problems. If you don't do it or do it wrong, you'll lose points. If your answer is wrong but it somehow still magically works out when you check it, you'll lose points for making the original mistake and some more for not catching it. It's always a good idea to check your answer, even when you are not specifically asked to. One of the fastest and easiest checks is to see if your answer is reasonable.

**A general note on assignments:** It is not our goal to teach you recipe-book math. Math is not about plugging numbers into the right formula. It's about developing analytical skills that allow you to solve problems. Therefore some of the problems on the HW and on the exams may not look like any you've seen before at least superficially. These are not meant to bring you immeasurable pain. They are meant to challenge your ability to recognize underlying patterns and fill you with a sense of satisfaction when completed.

**Quality of work:** It is important that you work neatly on the quizzes and the exams. The quality of your work will affect your grade. Quality has to do with how easy it is for someone else to read your solution to a problem. It is not enough to get the right answer, you must also present it well. Don't shy away from saying what you want in words and full sentences.

**Neatness:** Quizzes and exams too messy for the grader to decipher will be returned ungraded. You will then be asked to type it on a computer and laser print it. You'll also have to write a paper discussing what prevented you from submitting neat work and what you plan to do in the future to remedy this problem. We will grade this paper for content, style, grammar, neatness, etc and arrive at your score on the particular test by multiplying your score on the quiz or exam and your score on this paper as percentages.

**Additional resources:** Math Lab in South Hall 1607 has TAs eager to answer your questions 12–5, M–F. Campus Learning Assistance Services (CLAS) offers free tutoring. The Math Achievement Program is a 1-credit class (Math 91, Code 28449) which meets 12:30–1:45 TuTh in SH 4631. It's like discussion section, only more personalized. If you enroll in it, you won't have to attend section and will take the quiz in MAP on Th.

**Disclaimer:** CLAS is not affiliated with the Math Dept. While many students find it useful, CLAS tutors have been known show students incorrect or incomplete solutions to problems. It is your responsibility to make sure that whatever you learn there is correct.

**Students with disabilities:** If you need special arrangements, let me know well in advance so we can plan to accommodate your needs.

**Another general note:** Math is much like learning to drive in that I cannot truly teach you. I can explain it to you, show you how to do it, and tell you what you are doing wrong, but you really teach yourself by thinking about it and practicing it. Yes, we do know some tricks and shortcuts that make particular problems easy to do. But they won't help you with a different problem. It's better to develop a thorough understanding of the method of mathematical thinking. Once you do, you'll make up your own tricks and shortcuts.

Scott and I are here to help you, but most of the effort is yours. You learn most by doing problems. Attending class and reading the textbooks won't be enough to do well on the exams. On another note, you don't read a math book like you read fiction. You should work through every example and computation in the texts and in your class notes and expect to have to re-read everything several times. It's slow, but then your reading list for this class is short.