

Course: Math 103, Introduction to Contemporary Mathematics

Sp '09

Text: Topics in Contemporary Math, Preliminary Edition 8
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Office Hours: 9:30-10, 12 - 1 MTTF <i>or by appointment</i> Or CWLT, 10 - 12 -- appts x 2960

I am usually in my office when I am not in class, so feel free to stop by if you have any questions. If I am not in my office, I am probably not too far away.

Teaching Philosophy:

- Mathematics is learned by *doing*, not watching.
- Learning mathematics is more than memorizing formulas and learning how to use them -- it is also about learning how to present your solutions so that a reader can follow the work. This applies to homework, worksheets, exams, and any other work that is done in the course.
- To become proficient in the skills, they must be practiced, and students need feedback on their attempts.
- If you are willing to learn, I am willing to help you.

Goals of Course: By the end of the course, the student should be able to . . .

- Understand the basics of statistical analysis.
- Analyze studies reported in the media.
- Understand how graph theory can be used to solve a multitude of problems.
- Use the finance formulas.
- Appreciate the breadth of applications in mathematics.

Grades: Grades will be given according to the percentage of total points earned, as follows: 93% - 100%, A; 90% - 92%, A-; 87% - 89%, B+; 83% - 86%, B; 80% - 82%, B-; etc.

- The points opportunities are as follows:

4 hour exams	400	
Homework	100 *	* = Approx
Worksheets	150 *	
Projects	150 *	
Miscellaneous	100 *	

- **Exams:** Exams will be after every two chapters, give or take. You will get at least one week's notice for exam dates.
- **Homework:** This will be assigned from the book. You will turn in all listed problems on the homework list. I will grade at least one of the starred problems. Your homework grade will have two parts: attempts and graded problems. It is best to work on them as assigned, rather than wait until the last minute. I expect a thorough job on homework. They will be graded on correctness as well as the thought put into the problems. ***A simple yes/no answer will not suffice, regardless of how the question is worded.*** Be sure to show all your work. Yes, there is partial credit, but in general *full credit is only assigned for fully correct and thorough work.* The lowest homework score will be dropped.

NOTE: I will take time in class to answer questions, so be sure to ask, especially if I forget! Here is my policy on answering homework questions in class: I will not "do it on the board" before grading -- that is not fair to those who have worked hard. I will give hints that will hopefully help

you get over the hump of confusion. If that does not happen, ask again, or come ask me after class. In general, I can be much more thorough in answering questions one-on-one than in class.

- **Worksheets:** Supplementary work, mostly done in groups, to help clarify the material and give you some practical experience with the concepts. Some will be graded, others will not.
- **Projects:** For each unit, there will be a group project. More later!
- **Miscellaneous:** Assignments that don't fit into any of the other categories!

Odds and Ends:

- **Attendance:** I expect you to be in class every day -- it is not recommended that you skip class. For this course especially, there is a correlation between the number of days missed and the grade received. If you find that you cannot make it to class, it is your responsibility to find out what you missed -- get the notes from a classmate, or check with me. Absolutely no excuses on exam day, or when assignments are due! Please try to schedule appointments with class time in mind, and if you know that you are going to be missing class for more than a day, I would appreciate a phone call.
- **Due Dates:** Assignments are due on the due date, by 4 p.m. unless told otherwise, *regardless of whether or not you are in class*. Late work is accepted, but will be penalized 10% per day late, **weekends included**. (Note that this means an assignment gets no credit after 10 days late.) No make-ups are given, except for University excused absences, and this *must be arranged beforehand* (work is due the next day to be on time).
- **Calculator:** You will need a calculator for this course. It need not be a super, duper one, but it should have statistical functions. If you are not sure if your calculator has these keys, check with me. It is important that you have one of your own (or borrowed for the semester) -- do not count on borrowing a classmate's!
- **Book:** It is a good idea to read your book as we go. It is very readable, at least that's what students have told me! I will hit the key ideas in a section, but may not have time for the finer points. It is expected that you will be reading the book to pick these up. If you have questions about something you read, just let me know! (And let me know if you find any typo's!)
- The concepts you will learn in this course are not overly difficult, but they are different. This is probably not like any math class you have ever taken, so you will need to do the work and come to class. Most math majors cannot help you if you miss something! One day of missed class can create weeks of confusion, literally. The work we do in class and that I assign out of class is meant to help you learn -- it is not meant to be busy work, so do it! The effort you put into the class will be reflected in the grade you get in the end. If you start getting behind, it is not impossible to catch up -- come see me (the sooner, the better). If you put in some effort, I will be more than happy to help you out!
- **A note on group work:** This course lends itself very well to small group work, both in and out of the classroom. For group projects, most of the work will be done outside of class. Here's my definition of how a group should work: You should sit down as a group and work on the problem *together*. If some kind of research must be done before hand, you may have individual group members do that. Group work **does not mean** that you split the work between individuals and then simply compile everybody's work to one paper. Often times this method means that work is shared unevenly and each group member does not learn all that is meant by the project. If you do parcel out work, before compiling it in a final report, you should sit down as a group and talk about the work. If you are having problems getting your group to work together, let me know and I will try to help!
- **A note on written work:** There will be many assignments in this class of a writing nature. I will grade these on mathematical content as well as grammatical content. Typo's, incorrect spelling, incomplete sentences, etc. can be very distracting in the reading of a paper, and will be graded accordingly. You should type all papers and proofread them carefully.