

AMS 5: Statistics.

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Required Text

Freedman, D., Pisani, R., and Purves, R., (2007), Statistics, Fourth Edition. New York, Norton.

There will be 2 books on reserve at the Science Library.

Lectures

Media Theater M110. Tuesdays and Thursdays from 2:00pm to 3:45pm.

Discussion sections

Discussion section 01A to be held at Engineering 2 192 on Mondays, from 8:00-9:10am.

Discussion section 01B to be held at Engineering 2 192 on Mondays, from 3:30-4:40pm.

Discussion section 01C to be held at Jack Baskin Engineering 165 on Tuesdays, from 6:00-7:10pm.

Discussion section 01D to be held at Engineering 2 194 on Tuesdays, from 7:30-8:40pm.

Discussion section 01E to be held at Earth & Marine B210 on Wednesdays, from 11:00-12:10pm.

Discussion section 01F to be held at Earth & Marine B210 on Thursdays, from 8:30-9:40am.

Discussion section 01G to be held at Engineering 2 192 on Thursdays, from 8:00-9:10pm.

Discussion section 01H to be held at Engineering 2 192 on Fridays, from 8:00-9:10am.

Discussion section 01I to be held at Jack Baskin Engineering 165 on Fridays, from 3:30-4:40pm.

Sections are **not** optional. They are part of the requirements to pass this course and attending them is paramount to getting a satisfactory result.

There will be a quiz during all sections. This is a way to reward the students who take the time to come to sections and, at the same time, to allow them to see how they are doing in class.

Office hours

Tentative schedule. Please get in touch with us in case you cannot make any of the times below. Office hours are an important part of the learning process, and we want to make sure that everyone has access to at least one of the office hours sessions per week.

Bruno: Fridays from 2.30pm to 3.30pm at Jack Baskin building, room #141 or Jack's Lounge (I'm usually in one or the other).

Teaching Assistant: TBA (check class's website).

Tutoring

This class has free tutoring support from MSI (Modified Supplemental Instruction). More news during lectures. Their web site is at:

<http://www2.ucsc.edu/lss/msi.shtml>.

More tutoring services can be found at www.cse.ucsc.edu/advising/undergraduate/current/tutor.html

It is our experience that students do not use tutoring sessions (for one reason or another, most quite un-rational) although they need it badly. In order to motivate you a little further to make use of them, I am allowing students who attend at least 5 sessions to drop an additional worst score in quizzes and homework (ie. instead of just dropping one worst score in each, the student will be allowed to drop the two worst scores).

Quizzes

One per section, they will be very easy and short; the intention is to both reward the students for attending section and also to give everyone an idea on how well they are doing on a very basic level.

Quizzes will account for 10% of the final grade. You will be allowed to drop the lowest score.

Any questions regarding quizzes's scores or grading should be addressed to the TA.

Homework

There will be one set of homework problems per week. They will always be due on Fridays by 5:00pm. There is a drop box with the name of your TA at one of the entrances to Jack's Lounge (check map on class's website).

Whenever possible, homework solutions will be posted in the glass showcase at Jack's Lounge shortly after the deadline. The scores will be posted on the course's web site.

Graded homework will be given back in sections.

The average of homework will account for 10% of the final grade. You will be allowed to drop the lowest score (you will also be allowed to drop an additional worst homework score in case you complete more than 5 tutoring sessions).

Any questions regarding homework's scores or grading should be addressed to the TA.

List of priorities when working on homework:

1. Understanding each problem. This includes checking the corrections and solutions when you get your homework back. If there's anything you don't understand, talk to us about it.
2. Try to complete as much of the homework list as early as possible. If you can't do it before the deadline to hand the problems for grading, just give us whatever you did, although your work is not finished then; finish all the problems, even if after the deadline.
3. If you have difficulties in a particular set of problems, choose extra problems and work on them together with me, the TA or your favorite tutor.
4. By the time you get to the exam, make sure you understand all the problems in the homework list.

Midterms

The midterm will take place on Tuesday, February 12th, in class (although we might set up an additional room to accommodate everyone comfortably), and will cover all that was taught just before the date of the exam.

The exam's score will contribute 30% to the final grade.

Official solutions will be posted in the glass case at Jack's lounge at Jack Baskin's building just after exams.

The final will include problems of the same type as the ones in the midterms (ie. the final will include all what was taught in the quarter), so make sure you understand all the mistakes you (eventually) made in the midterm, so that you don't repeat them in the final.

Important note. Unfortunately we cannot set up midterm re-takes; If you can't make it to the midterm we will calculate your final grade with 10% of your average homework score, 10% of your average quiz score and 80% of your final exam.

Any questions about the scores on the midterm should be addressed to Bruno.

Final exam

It will take place on Tuesday, March 18th, from 4:00 to 7:00pm at Media Theater M110 (double-check at <http://reg.ucsc.edu/soc/2080/sched.htm#Winter2008>).

The exam will cover **all** that was taught during the quarter ¹.

The exam's score will account for 50% of the final grade. You need a minimum of 60% in the final exam in order to pass the class (regardless of your total final average).

Any questions about the scores on the final should be addressed to Bruno.

Official solutions will be posted in the glass case at Jack's lounge at Jack Baskin's building.

Important note: Before you enroll in this class, make sure you check the date of the final exam and that you can make it. We will only allow final exam re-takes in case truly disastrous event keeps you from taking it. I mean disastrous events only, not the fact that you want to take an earlier flight home, or that it is just not convenient for any other reason.

¹Once more, having looked carefully at your answers in the midterms will be a good guide to preparing yourselves for the final exam.

Passing this class

The final grade is calculated with the following formula: $0.1 \times (\text{average homework scores}) + 0.1 \times (\text{average quiz scores}) + 0.3 \times (\text{midterm score}) + 0.5 \times (\text{final exam score})$.

You will have a C (or a 'Pass') if you have at least 60% as your final score **and** 60% in the final exam.

Course's web page

Address: <http://www.soe.ucsc.edu/classes/ams005/Winter08/>

The web page will contain the list of homework due, score list (updated weekly) and most likely some notes from the lectures. It will also contain any announcements related to the course and all the information related to it.

Protected material can be accessed by using the following information,

username: ams005 password: nosed31 (for the Fall07 site) and birds42 (for the Winter08 site)

Class Rules

No type of collaboration between students is allowed in quizzes, the midterm or the final exam. Not complying with this rule will initiate a very unpleasant procedure for both the students and us, so please don't let yourself get to the point where illegal collaboration becomes an option; start working from the first day of class and stay engaged with us in sections, office hours and tutoring sessions.

You can work together on homework, but 'carbon copies' are not acceptable.

Always substantiate any answer you give to any question in this class. Even "true" or false" answers have to be justified, either with words or calculations.

Not complying with these rules will affect your grade considerably.

Late homework is never accepted. We have a system set up for grading homework: graders pick them up on Fridays at 5pm sharp and we publish the solutions also at that time, accepting late homework will affect negatively the way the system works. But don't forget that the main goal of homework is to get it done, not getting it graded (even though we can all agree getting both is the ideal!).

How to improve your chances to get a good result in this course

Take as much advantage as possible of the **office hours**. They are a wonderful opportunity to get an almost one-to-one tutoring. I will be able to pay closer attention to you individually and therefore help you more efficiently.

Unfortunately our education system still expects the students to arrive at this school with good strategies for working/studying, and the sad reality is that many times they don't. In fact, there is a resource that I strongly advise all students to take, it's a set of workshops that (in my opinion) should be compulsory to all students since they are so useful; more information at <http://www2.ucsc.edu/csas/#workshops>.

Although we are very well aware that each person is an individual and running the serious risk of sounding paternalistic, allow us to give you a few ideas on how to improve your studying of mathematics.

- Read the book. Many people give up after a first read of the book, giving in to frustration. Please keep in mind that no one expects you to understand everything on a first read. No one can do that. Most typically a student needs to read the material two to four times until he/she starts feeling comfortable with the new concepts.
- Study the examples. These are the "doors" that lead to the solution of most of the exercises. It is almost pointless to tackle homeworks and quizzes if one doesn't understand the examples. The usual procedure should be to re-read the theory in case you have difficulties with a specific example.
- Work out the problems given in the book. Feel free to do as many as you feel like. Start with the easy ones first. If you have problems, go back to the examples, maybe you just skipped something important.
- Organized work. Be organized and write down your calculations in a clean and ordered way, problem solving is much simpler if one has organized, clear calculations. Usually "messy writing" \implies "messy thinking".
- Make full use of lectures, sections, office hours and labs. Don't be afraid to make questions. The more you interact with the teachers the more likely you will be able to absorb more knowledge. Come to us as many times as are necessary!

You can and you **should** come to me for help during any of the stages described above, but you'll be able to take more from our meetings if you have gone through the first items in this list on your own at least once.

I look at this course as a team work and the main goal of all of us is to help you learn mathematics and help you have a good final grade.

I welcome you to this course and we hope that by the end of it you feel that you have learned something useful and at the same time had some fun doing it!