

Course Policies and Syllabus

Instructor	Lelys Bravo de Guenni
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Phone	831-459-1653 (email is preferred)
Office Hours	Wednesday and Friday 09:30-10:30 am or By Appointment

Website: <https://ams007-spring16-02.courses.soe.ucsc.edu/> Note that the grades will be uploaded in *eCommons*. You can log into *eCommons* at the following url: <https://ecommons.ucsc.edu/portal> using your Gold ID and password.

Lectures: Monday and Wednesday, 07:00-8:45 pm, Tim Lecture 003

Required Text: *Biostatistics for the Biological and Health Sciences*, M. M. Triola and M. F. Triola, Pearson (2006).

Discussion Sections: TAs will work through additional examples and answer questions. Sections are mandatory. All the quizzes and exams will be passed back in your enrolled section.

Section	Days	Time	Room
02A	Tu	06:00PM-07:10PM	Engineer 2 192
02B	Tu	07:30PM-08:40PM	Engineer 2 192
02C	Th	08:30AM-09:40AM	Engineer 2 192
02D	F	12:30PM-01:40PM	Engineer 2 192

Teaching Assistants:

- Xingchen Yu - xyu26@ucsc.edu **Office hours:** TBA
- Yifei Yan - yya58@ucsc.edu **Office hours:** TBA
- Garima Garg - ggarg@ucsc.edu **Office hours:** TBA

Computer Labs: Enrollment in AMS 7L is a co-requisite. Material will be linked, but **administratively 7L is a separate course** and you will receive a separate grade for 7L. This lab is on-line. Please see the web page for your lab sections. All questions, especially administrative ones, about AMS 7L should be answered by Lab Instructors. The Lab instructors are: Annalisa Cadonna and Devin Framcom.

Reading: The material in this course may go quickly. It is expected that you will stay up to date in reading the relevant sections of the text. The tentative schedule is at the back and it will be also available online. The reading material for each class is listed there.

Course Description

The main goal of this class is to introduce the basic ideas of probability and statistics with emphasis on applications to the life sciences and to everyday life. While we will learn how to do

some calculations by hand, the primary goal is understanding of concepts, including the ability to interpret results. Topics are detailed in the schedule in page 3.

Homework

Homework will be assigned every Wednesday, but will not be collected or graded. Answers to the odd numbered problems are in the back of the book. If you feel it would help, you are encouraged to work together on homework. But remember that you have to take the homework quizzes individually, so the point of the homework is to learn the material.

Grading Policy and Exams Information

- **Quizzes (25%):** There will be **four (4) quizzes** based on the homework, as indicated on the schedule. They will be held on Mondays. Many questions will be selected homework problems with the numbers changed. The quizzes are closed book, but you should bring a calculator. You must show all work (where applicable) for full credit. **Your lowest quiz score will be dropped when computing your quiz average**, and this is meant to account for nearly all reasons you might have to miss class, including illness. There will be **no make-up for quizzes, no exceptions**.
- **Midterm (30%):** There will be one **in-class midterm** on **May 02**, The midterm will cover material from chapters 1-7. Be sure to bring a calculator. You must show all work for full credit.
- **Final (40%):** The **final exam** will be on Thursday, **June 09** from 12:00 m to 3:00 pm, as designated by the registrar. Be sure to bring a calculator. **The date of the final will not be changed**. The final will be a comprehensive exam.
- **Session Attendance:** Attendance to sessions will be 5% of your final grade. This will be based on your attendance record.
- **Additional information about quizzes and exams:** You will need a calculator for all the exams and quizzes. It is important that the calculator has a square root key and logarithms, in addition to the usual arithmetic operations. All the exams and quizzes are closed book. **Only for the midterm and the final** (not for the quizzes) you may bring one single 8½in by 11in piece of paper with notes on both sides. This piece of paper should have your name and will be collected with your exam. You are not allowed to include solutions to any of the homework problems in this piece of paper. You must show all your work (when applicable) in the quizzes and exams to get full credit.

Exam Accomodation: If you need DRC accomodation, or cannot make it to class on an exam day for a pre-approved reason such as an official UCSC sports team event, please make arrangements within the first two weeks of class. Please come to speak with me after class or during office hours or send me an email.

Date	Book Sections	Topics
March 28	1.1-1.3	Intro to the course. Why study statistics? Data types, experiments
30	2.1-2.4	Looking at data Measures of central tendency
April 04	2.5-2.7 3.1-3.2	Measures of dispersion Definition of Probability
06	3.3-3.7	Addition and Multiplication rules, Risks and Odds
April 11		QUIZ 1
	4.1-4.5	Discrete distributions – Binomial and Poisson
13	5.1-5.4 5.5-5.7	Normal distribution, Sampling distributions Central limit theorem Normal approximation to Binomial
April 18	6.1-6.2 6.3-6.4	Confidence intervals for proportions Confidence intervals for means
20	7.1-7.3	Hypothesis Testing
April 25		QUIZ 2
	7.4-7.5	Testing claim for Proportions and Means
27		Review
May 02		MIDTERM EXAM
04	8.1-8.2	Two-sample hypothesis tests
May 09	8.3-8.4	More two-sample tests Comparing proportions and means
11	9.1-9.2 9.3-9.4	Correlation and regression More on regression
May 16		QUIZ 3
	9.5	Multiple regression
18	10.1-10.3	Chi-square tests
May 23	11.1-11.2	Analysis of Variance
25		QUIZ 4
May 30		HOLIDAY
June 01		Review
June 09		FINAL EXAM