

Course Policies and Syllabus

Instructor	Tatiana Xifara
Office	Baskin Engineering 365B
Email	xifara@ams.ucsc.edu
Office Hours	Monday 3:00-4:30pm or by appointment
TA	Yifei Yan <yifeiyan@soe.ucsc.edu>

Web page: <https://courses.soe.ucsc.edu/courses/ams7/Summer14/01> I will be uploading grades at *eCommons* where you can login using your Gold ID and password (<https://ecommons.ucsc.edu/portal>).

Lectures: Monday, Wednesday 9:00am-12:30pm, Jack Baskin Engineering 152

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

Course Objectives: To introduce the basic ideas of probability and statistics with emphasis on applications to the natural and social 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 on back.

Homework: Homework will be assigned, 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!

Discussion Sections: Monday 4:30-5:40pm, Wednesday 3-4pm. Sections will be held at Nat Sci Annex 103. They are optional but **extremely useful!** Your TA will work through *additional* examples and answer questions. The office hours of TA will be announced shortly.

Reading: The material in this course will go quickly since it is a 10 week course to be taught in 5 weeks. It is expected that you will stay up to date in reading the relevant sections of the text (the schedule is on back).

Computer Labs: Enrollment in AMS 7L is a co-requisite. Material will be linked, but you will receive a separate grade for 7L. This lab is on-line, please see the web page of your lab section. Tony Pourmohamad is the instructor for this course, his e-mail is tpourmohamad@soe.ucsc.edu.

Quizzes: There will be four quizzes based on the homework, as indicated on the schedule. Many questions will be selected homework problems with the numbers changed. Each quiz will cover all material covered since the last quiz, not including the material covered on the day the quiz is given. 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.

Exams: There will be an **in-class midterm** on Wednesday, July 9, and a comprehensive **final exam** on Wednesday, July 23, the last day of the course. Be sure to bring a calculator. As usual, you must show all work for full credit.

Exam Accommodation: If you need DRC accommodation, or cannot make it to class on a quiz or exam day for a pre-approved reason, please make arrangements with the instructor within the **first week** of class.

Course Grade Quizzes: 30% (10% for each of your 3 best quizzes)
 Midterm: 30%
 Final Exam: 40%

Tentative Schedule for Statistics

Date	Sections	Topics
June 23	1.1-1.3 2.1-2.4	Intro to the course. Why study statistics? Data types, experiments Looking at data Measures of central tendency
25	2.5-2.7 3.1-3.2 3.3-3.7	Measures of dispersion Definition of probability Probability
30	4.1-4.5 5.1-5.3	Discrete distributions – binomial and Poisson Normal distribution (quiz 1)
July 2	5.4-5.7 6.1-6.2	Sampling distributions, Central limit theorem, Normal approx to Bin Confidence intervals for proportions (quiz 2)
7	6.3-6.4	Confidence intervals for means Review for Midterm
9	7.1-7.5	Hypothesis Testing MIDTERM EXAM
14	8.1-8.4	Two-sample hypothesis tests
16	9.1-9.4	Correlation and regression, More on regression (quiz 3)
21	9.5 10.1-10.3 11.1-11.2	Multiple regression Chi-square tests Analysis of Variance (quiz 4)
23		FINAL EXAM