AMS 7, Section 02: Statistics for the Biological, Environmental, and Health Sciences

Course Policies and Syllabus

Instructor: Raquel Prado, Baskin Engineering 365-C; phone: 459-1488; e-mail: raquel@ams.ucsc.edu

Lectures: Tu-Th 10am - 11:45am, Thim Lecture 003


Office Hours: Tu 1:00pm - 2:00pm and Wed 11:30am - 12:30pm in BE 365-C.

Website: [https://courses.soe.ucsc.edu/courses/ams7/Winter15/02](https://courses.soe.ucsc.edu/courses/ams7/Winter15/02)

Note that the grades will be uploaded in eCommons. You can log into eCommons at the following url: [https://ecommons.ucsc.edu/portal](https://ecommons.ucsc.edu/portal) using your Gold ID and password.

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

<table>
<thead>
<tr>
<th>Section</th>
<th>Day</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>02A</td>
<td>M</td>
<td>3:30pm-4:40pm</td>
<td>Kresge Clrm 327</td>
</tr>
<tr>
<td>02B</td>
<td>Th</td>
<td>6:00pm-7:10pm</td>
<td>Eng 2 194</td>
</tr>
<tr>
<td>02C</td>
<td>Th</td>
<td>7:30pm-8:40pm</td>
<td>Eng 2 194</td>
</tr>
<tr>
<td>02D</td>
<td>F</td>
<td>2:00pm-3:10pm</td>
<td>Kresge Clrm 327</td>
</tr>
</tbody>
</table>

TAs:

- Brenda Betancourt. Office Hours: TBA; e-mail: bbetanc1@soe.ucsc.edu
- Cheng-Han Yu. Office Hours: TBA; e-mail: cheyu@soe.ucsc.edu

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. The lab instructors are Tony Pourmohamad and Robert Richardson. Please see the web page of your lab section. The labs will begin on Monday January 12.

Reading: The material in this course may go quickly. It is expected that you stay up to date in reading the relevant sections of the text. Please see the schedule online, the reading material for each class is listed there.
Course Description

The main goal of this course is to present standard statistical techniques for analyzing data from the life sciences. Examples taken from these fields will be presented. Topics include: descriptive statistics, concepts of basic probability and conditional probability, Bayes theorem, binomial and normal probability distributions, estimation and hypothesis testing, ANOVA, correlation and linear regression.

Basic ideas and statistical methodology will be presented during lectures. I will follow the textbook ideas closely, however, a relatively large number of examples that do not appear in the textbook will also be discussed. It is your responsibility to keep informed and current in regard to day-to-day coverage.

I will use slides in most lectures. The slides will be available online.

A tentative week-by-week plan of the course is available online. We will cover the topics listed in the plan, however, the schedule may be modified since the pace of the course may be slower or faster depending on the needs of the class. Homework assignments and handouts will be available online.

Homework

There will be several homework assignments in this course. Homework will be assigned during lectures or online. The homework will not be collected or graded. Answers to the odd numbered problems are in the back of the book. It is very important that you solve all the problems since the quizzes and exams will include similar problems to those in the homework assignments. If you feel it would help, you are encouraged to work together on the homework, however, please remember that you have to take quizzes and exams individually, so the point of the homework is to learn the material.

Exams

- **Quizzes (35%)**: There will be a total number of four (4) quizzes held in class. The tentative dates are listed on the schedule. The quizzes are closed book, but you should bring a calculator. To compensate for emergencies, illness or bad luck your lowest score will be dropped from the grade computation. There will be no make-up for quizzes, no exceptions.

- **Midterm (30%)**: There will be one in-class midterm exam on Thursday February 12. Although it is VERY unlikely, the date of the midterm exam may be changed and in such case you will be notified at least two weeks prior to the new date.

- **Final (35%)**: The final will be a comprehensive exam. The final will be on Wednesday March 18th, from 4pm to 7pm in the classroom, as designed by the registrar. The date of the final exam will not be changed. The only excuses for missing the midterm or the final are a serious illness or a major family crisis. In such cases you must provide proof in the form of an official document. If you miss an exam and do not have a valid excuse you will receive a zero for that exam.
• Additional information about the 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 final exams (not the quizzes): You may bring one 8.5\text{in} by 11\text{in} 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 work (where applicable) in the quizzes and exams to get full credit.

• Exam accommodations: If you need DRC accommodation please make arrangements within the first two weeks of class.

**Grading Policy**

Your final grade (this does not refer to AMS 7L, only to AMS 7) will be based on 35\% quizzes, 30\% midterm and 35\% final. Any dispute arising in grading of the quizzes and exams should be submitted in writing. This letter should clearly state the question(s) where you think there has been a grading error and what you think the error is. Note that upon resubmission the entire exam or homework may be regraded. There is a one-week time limit for submission of disputes for exams and quizzes. The one-week limit starts on the day the exams have been returned in your discussion section. If you are not present on the days the quizzes/exams are handed back, you will need to contact your TA to get your quiz/exam back.