

UCLA, Department of Statistics
Summer 2009 - Session A

Statistics 10: Introduction to Statistical Reasoning

Classroom: WG Young Hall CS 76
Time: MW 12:00pm - 1:50pm

Lecturer: Mine Çetinkaya
Email: *mine@stat.ucla.edu*
Office: Math Sciences 8105F
Office Hours: MW 11:00am - 12:00pm and 2:00pm - 3:00pm
If you cannot make it at these times please email me to make an appointment.

Teaching Assistants: Brigid Brett-Esborn - *brigid@stat.ucla.edu*
Tess Nesbitt - *tess@stat.ucla.edu*

Required Textbook: Intro Stats by De Veaux, R. D., Velleman, P.F., and Bock D.E.
Addison Wesley, 3rd Edition, 2008, ISBN: 0-321-50045-8

Calculator: You are required to have a calculator that has statistical functions (mean and standard deviation) and to bring it to every lecture and discussion, mini-exams and final. We will not be providing calculators and you will not be allowed to borrow one from another student during an exam.

Course Website: Our class “business” will be conducted through the Moodle course management system: <http://moodle.stat.ucla.edu> . The first time you log in there will be special instructions to get you started. I recommend you log in immediately. All homework and announcements will be made through this site, so you should check it daily.

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|---------------------|-----------|--|
| Weekly Plan: | Monday | Attend 1 st lecture of the week Take 1 st Moodle Quiz of the week (2:00 pm to 11:50 pm) |
| | Tuesday | Attend lab |
| | Wednesday | Attend 2 nd lecture of the week |
| | Thursday | Attend discussion section |
| | Friday | Take 2 nd Moodle Quiz of the week (2:00 pm to 11:50 pm) |

Lectures:

We will have two lectures a week, Mondays and Wednesdays. This is a six week course and we will be going through a lot of material in six weeks. In order to be able to keep up with the pace of the course and not fall behind it is highly recommended to attend the lectures. Moreover, there will be one question on your final that will be very similar to a question we solve in lecture.

Discussion Sections and Labs:

| Section | Days | Time | Classroom | TA |
|---------|------|-------------------|--------------|---------------------|
| 3A | T | 8:00am - 9:20am | Boelter 9413 | Brigid Brett-Esborn |
| | R | 8:00am - 9:20am | Boelter 5264 | |
| 3B | T | 9:30am - 10:50am | Boelter 9413 | Brigid Brett-Esborn |
| | R | 9:30am - 10:50am | Boelter 5264 | |
| 3C | T | 11:00am - 12:20pm | Boelter 9413 | Tess Nesbitt |
| | R | 11:00am - 12:20pm | Dodd 146 | |
| 3D | T | 12:30pm - 1:50pm | Boelter 9413 | Tess Nesbitt |
| | R | 12:30pm - 1:50pm | Boelter 5440 | |

In the discussion section your TA will focus more on problem solving related to the concepts that we go over in lecture. It is recommended that you attempt the homework problems before attending section and be active participants. Your TA will also solve questions that most students missed on the Moodle Quizzes therefore you are advised to print out a copy of your Moodle Quiz and bring it to discussion.

In the lab you will learn to analyze data by using a user-friendly statistical analysis software called Fathom. During the lab your TA will demonstrate the analysis. For the weekly lab assignment you will be asked to run similar analyses by yourself. Lab assignments will be due at the start of lab the following week, they should be typed and stapled. Since there are only five lab assignments the lowest score will not be dropped.

You may use the Boelter Lab (for lab hours go to <http://calendars.stat.ucla.edu/~labs&cal=Instructional+Computing+Lab>) while working on your assignment. You can also find this link on the Moodle homepage. Fathom is also available on Clicc Lab computers (<http://www.clicc.ucla.edu/>) or available for purchase at the UCLA Book Store.

Moodle Quizzes:

The twice weekly quizzes are designed to help you find any problem areas, and to help me judge how to pace the course. Each week you take the quiz twice and receive the maximum of the two grades.

You will have one hour to complete each quiz and you must take the quizzes by yourself.

The first quiz will cover the material of Monday's lecture and will be available on Monday, from 2:00 pm to 11:50 pm. The second quiz will cover the entire week's material and will be available on Friday, from 2:00 pm to 11:50 pm. Moodle does not allow you to save your quiz and come back to finish it later. If you try to do so, you will lose your work and will not get another attempt. The lowest quiz score for each student will be dropped.

Homework:

Homework will be assigned weekly on Moodle. The objective of the homework assignments is to help you develop a more in-depth understanding of the material covered in the lectures. The homework assignments are due at the beginning of Monday's lecture (except for the last homework which will be due the day of the final). Your homework must be stapled, legible, and contain your name and discussion section number.

Homework assignments will be scored out of 100. Note that some of the problems have answers in the back of the textbook, so you should use those to check your work as you go. However you must show your work - full credit will not be given to answers that do not show work. The lowest homework score for each student will be dropped.

Late homework policy is as follows:

- Homework assignments may be submitted early by sliding them under my office door. Emailed homework assignments will not be accepted.
- Homework assignments turned in
 - 5-10 minutes late will be given a 10-point deduction.
 - 10-20 minutes late will be given a 20-point deduction.
 - 20-50 minutes late will be given a 30-point deduction.
 - 50 minutes late-end of class will be given a 40-point deduction.
- No homework assignments will be accepted after class.

Mini Exams:

Five 20 minutes mini-exams will be given at the beginning of Tuesday lab sessions. Each mini-exam will consist of a number of multiple-choice questions and/or open-ended problems. All mini-exam grading issues must be discussed with me no later than a week after the exams are returned. No regrades for the mini exams will be offered after the final exam. Since there are only five mini exams the lowest score will not be dropped.

Final Exam:

Final Exam is a comprehensive 1-hour 50-min exam that will be administered on the last day of class: Wednesday, July 29, 12:00pm - 1:50pm. It will consist of a number of open-ended problems. The final exam date cannot be changed. No make-up exams will be given. If you cannot take an exam on that date you should drop this class.

Grading Policy:

| | | | |
|----------------|-----|------------|-----|
| Homework | 10% | Mini Exams | 30% |
| Moodle Quizzes | 10% | Final Exam | 40% |
| Labs | 10% | | |

Grading Scale:

Letter grading will be based on the scale specified above. However grades will be curved if too few people are getting A's or if too many people are failing based on this scale.

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|------------|----------------|----------------|--|
| A - 90-94% | A 95-100% | | |
| B - 80-83% | B 84-87% | B+ 88-89% | |
| C - 70-73% | C 74-77% | C+ 78-79% | |
| D - 60-63% | D 64-67% | D+ 68-69% | |
| F 0-59% | P at least 70% | S at least 70% | |

Policies:

- See Homework section for late homework policy.
- If you are sick and are not able to turn in an assignment or take the mini exam, you will need to provide an official doctor's note.
- There will not be any make-up Moodle quizzes or final.
- You may not use your notes or any other studying materials on the mini exams or final. You will be provided with a formula sheet.
- All regrade issues on homework assignments and mini-exams must be discussed with me. You may discuss grading on the labs with your TA however the TA may direct you to me if the issue is not easily resolvable.
- Any instances of academic dishonesty will be taken very seriously. At a minimum you will lose all points for that particular assignment, up to and including penalties on your final class grade or being reported to the Dean. Please review the Student Guide to Academic Integrity at <http://www.deanofstudents.ucla.edu/StudentGuide.pdf>.

Tentative Schedule:

| Week | Date | Chapters | Topics | Assessments | Due Date |
|------|-------------|----------------|---|--|---|
| 1 | 6/22 - 6/28 | 2, 3, 4, 5, 6 | Data and Graphs Categorical and Numerical Variables Normal Distribution | No HW or ME MQ 1 MQ 2 | Monday, 6/22 Friday, 6/26 |
| 2 | 6/29 - 7/5 | 14, 15, 16, 17 | Probability Random Variables Geometric and Binomial Distribution | HW 1 MQ 3 Lab 1 ME 1 MQ 4 | Monday, 6/29 Monday, 6/29 Tuesday, 6/30 Tuesday, 6/30 Friday, 7/3 |
| 3 | 7/6 - 7/12 | 18, 19, 23 | Central Limit Theorem Sampling Distribution One Sample Confidence Intervals | HW 2 MQ 5 Lab 2 ME 2 MQ 6 | Monday, 7/6 Monday, 7/6 Tuesday, 7/7 Tuesday, 7/7 Friday, 7/10 |
| 4 | 7/13 - 7/19 | 20, 22, 23, 24 | One Sample Hypothesis Testing Two Sample Hypothesis Testing Two Sample Confidence Intervals | HW 3 MQ 7 Lab 3 ME 3 MQ 8 | Monday, 7/13 Monday, 7/13 Tuesday, 7/14 Tuesday, 7/14 Friday, 7/17 |
| 5 | 7/20 - 7/26 | 7, 8, 9 | Relationship Between Variables Linear Regression Models | HW 4 MQ 9 Lab 4 ME 4 MQ 10 | Monday, 7/20 Monday, 7/20 Tuesday, 7/21 Tuesday, 7/21 Friday, 7/24 |
| 6 | 7/27 - 7/29 | | Review. Final Exam. | HW 5 MQ 11 Lab 5 ME 5 HW 6 | Monday, 7/27 Monday, 7/27 Tuesday, 7/28 Tuesday, 7/28 Wednesday, 7/29 |