
Math 502AB – Probability and Statistics I & II

Fall 2009 - Section 1, MH 452, MW 5:30-6:45 and 7:00-8:15

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Office Hours: MW 4:00-5:30 p.m., or by appointment

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Text: *Mathematical Statistics and Data Analysis* by John Rice, Third Edition, Thompson/Brooks/Cole, 2007.

Software: We will use R, Matlab, and SAS for the projects and homework assignments. Instructions for use of these packages will be given, as necessary. R is a free software environment for statistical computing and graphics. It compiles and runs on a wide variety of UNIX platforms, Windows and MacOS. To download R, please choose your preferred [CRAN mirror](#). SAS and Matlab are available to students in the Mathematics Department Computing Laboratory in MH 452.

Your e-mail address wanted: You are **required** to fill out the “Student Information Form” ([click here](#)) and submit it to mori@fullerton.edu no later than **tomorrow**, 5:00 p.m. **Do not** save the Student Information Form as a PDF file and attach to an e-mail. You need to **use the submit button** on the form and follow the instructions. **If you’re unable to submit the form**, send me an e-mail with all the required information on the form. **Make sure** to include your **name** and your course “**Math 502**” on your e-mail. Also, **make sure** to provide an e-mail address that you check frequently. I will send **quizzes**, various communiqué, and last minute announcements about our class through e-mail. **Note:** Any credits that you lose due to not establishing your e-mail connection with me on time will be your responsibility.

I will send a “test e-mail” to all who submit their information. Please check your e-mail before you come to the class on **Wednesday August 26th**. If you do not receive my test e-mail, please see me after class to resolve any problems there may be.

Course Description: This course has two parts. In the first part we learn fundamentals of probability theory, including random variables, joint and conditional distributions, expected values, major probability limit theorems, and some well-known distributions. The objective in the second part is to utilize the probability theory learnt in the first part mainly for statistical inference. We will learn topics including parameter estimation specially maximum likelihood and method of moments, Bayesian estimation, properties of estimators, test of hypothesis and goodness of fit, exploratory data analysis, analysis of variance, regression analysis, and analysis of categorical data.

Course requirements and Grading Policy: : Homework will be assigned and collected occasionally on the due date, without a previous announcement. About 24 hours before the homework due date, a **quiz, in pdf format, will be e-mailed to you** that will be closely related to the assigned homework problems. You are to **print out the quiz** and answer the questions and **turn the quiz in at the beginning of the next class**. You **must work** on the quiz **individually**. Your weekly homework is usually due on Wednesday of each week (except for exam weeks). You should attempt to solve all the assigned problems by the Monday prior to the due date, and ask any questions that you may have in class or during my office hours.

I am an advocate of the recent **CNSM Study 25-35** campaign. **CNSM Study 25-35** represents the need for a full-time student (12 to 15 units) to spend *25 to 35 hours per week* studying to succeed in her/his classes.

Quizzes/homework/projects will account for **20%** of your grade. Two midterm exams (**50%**) and a final exam (**30%**) will be given, portions of which may be take home. You will be allowed to bring in one page of crib-sheet during

each midterm exam and five pages of crib-sheet during the final exam. Letter grades will be assigned according to the distribution of the overall grades. Plus-minus grading will be used.

The following is a tentative exam schedule:

<i>Exam I</i>	<i>Exam II</i>	<i>Final Exam</i>
Mon. 9/28	Wed. 11/4	Mon. 12/14, 5:00-6:50
		Wed. 12/16, 7:00-8:50 p.m.

Make-up exams will be given only in extreme instances and only with advance permission of the instructor. Any student who does not take an exam at the scheduled time without prior consent of the instructor will receive a grade of zero on that exam. If any student feels that a sudden illness is sufficiently extreme to warrant a make-up exam, the instructor must be provided with documentation prepared by an appropriate authority.

Academic Integrity: Students who violate university standards of academic integrity are subject to disciplinary sanctions, including failure in the course and suspension from the university. Since dishonesty in any form harms the individual, other students and the university, policies on academic integrity are strictly enforced. I expect that you will familiarize yourself with the academic integrity guidelines found in the current student handbook (see <http://www.fullerton.edu/deanofstudents/judicial/policies.htm>).

Examples of actions that constitute academic dishonesty include, but are not limited to:

1. Unacceptable examination behavior – communicating with fellow students, copying material from another student’s exam or allowing another student to copy from an exam, possessing or using unauthorized materials, or any behavior that defeats the intent of an exam.
2. Plagiarism – taking the work of another and offering it as one’s own without giving credit to that source, whether that material is paraphrased or copied in verbatim or near-verbatim form.
3. Unauthorized collaboration on a project, homework or other assignment.
4. Documentary falsification including forgery, altering of campus documents or records, tampering with grading procedures, fabricating lab assignments, or altering medical excuses.

Emergency Evacuation: In the event of an emergency such as earthquake or fire:

- Take all your personal belongings and leave the classroom. Use the stairways located at the east, west, or center of the building.
- Do not use the elevator. They may not be working once the alarm sounds.
- Go to the lawn area towards Nutwood Avenue. Stay with class members for further instruction.
- For additional information on exits, fire alarms and telephones, **Building Evacuation Maps** are located near each elevator.
- Anyone who may have difficulty evacuating the building, please see the instructor.

Furlough information: As you are probably aware, CSUF’s budget for this year has been significantly reduced affecting all areas of the campus. Faculty and staff are required to take furlough days without pay meaning that instruction and usual services will be disrupted at various times during the year. This semester, the Math Department Office will be closed on designated staff furlough days, which are posted outside MH-js157. Further, classes will not meet formally on those days where a furlough day is observed by the instructor. The specific days when a class will not meet will vary from course section to course section and instructor to instructor. Wednesday **October 21st**, Monday **November 2nd**, and Wednesday **December 9th** are my furlough days that effect your class, and therefore our class will not meet. Please note that while faculty are on furlough, students are not and

therefore assignments will be given for those days. This is a very difficult time for all of us. We are working to provide the best education possible given the resources available to us.

Some important dates

September 8 (Tuesday): Last day for students to ADD with a permit. All permits expire at midnight on September 8.

September 8 (Tuesday): Last day for students to DROP **without** a grade of "W". Students drop using Titan Online.

October 2 (Friday): Last day the Math Department will be flexible on the approval of late withdrawal requests. Beginning Monday, October 5, students must have a serious and compelling reason for withdrawing (e.g. medical reason) and must provide supporting documentation for their reason. **Students who are considering withdrawing, please do so BY October 2.**

Furlough Day: October 21st. Campus closed.

November 13 (Friday): Last day to withdraw with a truly serious and compelling reason that is clearly beyond the student's control. Students must document their reason.