

Math 3070-5 Applied Statistics I, Univ. of Utah, Fall 2003

Instructor: Dr. David A. Levin
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Classes: Lectures: Tuesday & Thursday 7:15-8:45 PM, EMCB 102
Computer Lab: Students must also register for a required two-hour lab session on Thursday.

Office Hours: TBA

Texts: Probability and Statistics for Engineering and the Sciences, 6th edition, Jay L. Devore
Learning SAS in the Computer Lab, Rebecca J. Elliott

Prerequisite: Calculus (Math 1220 or Math 1250)

Course Content

This course is the first in a sequence of two that offer a comprehensive introduction to the concepts of probability and statistics. In this course we will cover fairly quickly some ways to organize and present data that are used in descriptive statistics (Ch 1). Using sample data to make estimates about a population from which the sample is drawn, depends of the notion of probability so next we will consider the basic laws of probability, random variables (one and two- dimensional variables), common distributions, sample statistics, and the Central Limit Theorem (Ch 2—5). Finally, we will introduce some of the basic techniques of inferential statistics: point estimation, interval estimation, hypothesis testing (Ch 6—9 depending on time).

In the course students will examine both the theory behind statistical decision-making and the practical application of these techniques so that students can appreciate the use of statistics in both their personal and professional lives. The course material will be based on Chapters 1—9 of the above text and the lab assignments in the lab manual indicated above.

Course Grading

Test Average (lowest score dropped)	40%
Quiz/Homework Average (lowest 2 scores dropped)	20%
Computer lab grade	10%
Final Examination	30%
	100%

Notes

1. *Course Demands*: This is a 4 credit course – three hours of lecture and two hours of lab. It is a demanding course which requires a great deal of work. Students are expected to attend each class and to bring their text and a calculator.
2. *Homework*: You will find a list of assigned problems below. It is absolutely essential to keep up with the homework by doing the assigned problems on a regular basis.
3. *Quizzes*: There will be 6 or 7 quizzes given on Thursdays during the semester. These quizzes will be in the form of short ten-minute quizzes during class or longer take-home quizzes due on Mondays. Quizzes will be based on the homework material and class discussions and will be announced at the beginning of the week. The in class quizzes being short will not be of the same level of difficulty as the class tests. In computing the quiz average, the lowest two quiz scores will be dropped. Since the lowest two quiz scores will be dropped, no makeups will be given on quizzes.
4. *Class Tests*: There will be four tests and in computing the test average, the lowest test score will be dropped. The tentative schedule is given below. If any changes have to be made, they will be announced in class a week prior to the test date.
5. *Makeups on tests*: A makeup on a missed test will be given only under exceptional circumstances and only if prior approval is obtained.
6. *Computer lab*: All students must attend a 2 hour lab session on Thursday. Students must pass the lab (80% or higher) in order to pass the course.
7. The Math Tutoring Center offers FREE tutoring! This center is located in the T. Benny Rushing Mathematics Center. Tutoring is available beginning on Wednesday August 27th and the hours are: Monday-Thursday, 8 am - 8 pm; Friday, 8 am - 6 pm.
8. *Final Examination*: The final examination will be comprehensive and will be held on Tuesday December 9, 2003 8:30 – 10:30 PM.
9. The Americans with Disabilities Act requires that reasonable accommodations be made for students with physical, sensory, cognitive, systemic, learning, and psychiatric disabilities. Please contact me at the beginning of the semester to discuss any such accommodations for the course.
10. *Drop/Withdrawals*: Please note that the last day to drop this class is Friday August 29th and the last day to withdraw from the class is Friday, October 17th.

Tentative Schedule

Week	Topic
1	Ch1
2	Ch1&2
3	Ch2;
4	Ch2; Test #1(Ch 1—2) Thurs Sep 11
5	Ch3
6	Ch3&4
7	Ch4; Fall Break Oct 2
8	Ch4&5; Test #2 (Ch 3—4) Thurs Oct 9
9	Ch5
10	Ch5&6
11	Ch6 Test #3 (Ch 5—6) Thurs Oct 30
12	Ch7
13	Ch7&8
14	Ch8; Test#4 (Ch 7—8), Thurs Nov 20
15	Ch9; Thanksgiving Break
16	Ch9
17	Final Examination, Tue Dec 9 2003, 8:30 – 10:30 PM.