

Psychology 200
Statistical Principles
Fall 2003, Section 003

Place and Time: 127 Dane Smith Hall, 7:00-9:30 PM Tuesday
Instructor: Dr. Akaysha Tang
Lab Office: 256 Logan
Lab Phone: 277-5397
Office Hours: 4:00-6:00 Tuesday and by appointment
e-mail: akaysha@unm.edu
web page: <http://atlab.unm.edu>

Prerequisite

Math 121. College Algebra.

Required Text

Robert B. McCall (2001). *Fundamental Statistics for Behavioral Sciences* (8th ed.). Wadsworth / Thomson Learning. Belmont, CA..

Goals

1. Teach you the basic concepts and techniques in statistics.
2. Show that these concepts and techniques are useful for understanding your world.
3. Help you to apply what you learned to a few real world problems.

Tips for studying

Be part of a study group. In my previous classes, I recommended my students to find a body in the class to form a study group. This will be the person with whom you will do in-class problems and homework and study for your exams. Studying with someone else helps you to know that you might not be the only one who doesn't understand a concept or procedure. It also helps you to gain deeper understanding and remembering the material better if you explain what you know to someone else.

Don't bring questions home. Get rid of them by asking your questions right away. If you feel shy about it, you can write your questions down anonymously on a piece of paper and drop it in my question box after the class. I will make sure that your questions are answered in the next class. Those who ask questions tend to learn more. The big secret is that I bump your grade up when your grade is at a borderline if you ask questions in class or during office hours. You can also drop an anonymous note containing feedback you'd like to give me.

Be crazy. Do all the homework at the end of each chapter. At least two problems or questions per chapter will be included in your exams. The biggest secret of all is that if you do them all and get all of them right (answers are at the back of the book), the chances are that you will get at least an A in this class. For sure you will be recruited into my lab at the end of the semester because if you are that crazy, we want you to be part of our research team.

Course Format

Classes will consist of lectures, in class experiments, and data analysis. When introducing concepts and techniques, I will follow the text book closely because the definitions and problems are carefully chosen and arranged in an order that were based on improvement over eight editions. I want you to concentrate on listening, understanding, and asking questions. In class experiments and data analysis will provide you with opportunities to use the concept and techniques you learned immediately.

At the end of each lecture, you will be given a real world problem to solve. You will use the concepts or methods learned in the class to solve the problem. At the beginning of the next class, I will randomly select one study group to present their solution to the class. You will receive extra credits worth an undisclosed amount for solving the problem correctly.

You will be tested on only concepts and techniques discussed or specified in the lecture.

Help and Review Sessions

In addition to office hours, I will hold a review session prior to each test if the class desires. Time and location will be worked out with the class.

Grading

Final grades will be assigned based on the best 3 grades from the total of 4 exams and the problem sets. The weightings will be 30% per exam and 10% for the homework problems.

Your first missing exam will be dropped as if it is the one with the lowest grade. All exams are treated equally and there will be no cumulative finals.

There will be homework problems assigned after each lecture except for the days of exams. You must bring all your homework to the next class. Homework will be collected on 7 randomly selected weeks. Only the best 5 will be counted towards your grades, each worth 2% of your grade.

If you get 90% of all points, you will receive at least an A-. If you get 80% of all points, you will receive at least a B-. If you get 70% of all points, you will receive at least a C-. Depending on class performance, grade cut-off scores may be more generous than these figures.

***Psychology 200.03: Statistical Principles
Tentative Schedule***

Tang fall/ 03

<i>Week</i>	<i>Dates</i>	<i>Topics</i>	<i>Chapter(s)</i>
1	Aug. 26	Introduction	1
2	Sept. 2	Measurement, Frequency distributions; graphing	1,2
3	Sept. 9	Characteristics of distributions	3
4	Sept. 16	EXAM #1 / Explorative Data Analysis	4
5	Sept. 23	Relative standing; standard distributions	5
6	Sept.30	Correlation	6
7	Oct. 7	Regression	7
8	Oct. 14	EXAM #2	
9	Oct. 21	Sampling, Sampling distribution	8
10	Oct. 28	Probability and Estimation	8
11	Nov. 4	Hypothesis testing I: theory	9
12	Nov. 11	EXAM #3	
14	Nov. 18	Hypothesis testing II: Comparisons between group means	10
15	Nov. 25	Hypothesis testing III: One-way analysis of variance	14
16	Nov. 27	Hypothesis testing IV: Nonparametric Techniques	16
17	Dec. 2	Research Design	12
18	Dec. 9	Topics in Probability	13
19	Dec. 16	EXAM #4	