ISE 225 Engineering Statistics I
Fall Semester 2013
M,W 2:00 - 3:20 pm
Room: KAP 147
Web Site: blackboard.usc.edu

Kurt Palmer
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Prerequisite: ISE 220 Probability Concepts in Engineering

Objective: In this course, you will develop the skills necessary to gather data that is representative of the phenomenon that you intend to study, to describe the uncertainty in scientific results, and to draw valid conclusions in the face of uncertainty.

Text: Montgomery, Runger, and Hubele, Engineering Statistics, 5th edition

Course Material: Chapters 1-7 of the text, plus topics discussed in lecture by the instructor

Grading Policies:

Points Breakdown -

Homework		120
Project		120
Exam #1		130
Exam #2		130 .
	Subtotal	500
Final Exam		150

Course GRADES will be determined by the distribution of point totals for the class. "Natural groupings" will be used to assign letter grades. The highest scoring group will receive A's, the next group is the B's, and so on. A single point will not be the difference between any two letter grades.
A "gap" must exist to create a grade boundary.

HOMEWORK assignments will be due on the following Wednesdays:

September 4, 11, 18; October 9, 16, 30; November 6, 13

Late homework will be accepted until noon on the Thursday following the original due date. Homework will be graded on an "all or nothing" basis. If a paper shows an answer to each assigned exercise that uses approximately the correct method, the grade for the assignment is 15 points. If any exercise is unacceptable, the paper will be returned with no points awarded. Completions of returned assignments will be accepted for full credit until noon on the Thursday after the assignment is returned to the class.

A PROJECT will be due on the following date:

Wednesday, October 23

The project will involve data collection and analysis to investigate a scientific claim. For this project, you will work with an assigned partner. The project assignment will be distributed about two or three weeks in advance of the due date.

An EXAM will be given on each of the following dates:

Wednesday, September 25 and Wednesday, November 20

Each exam will cover the material presented up to and including the preceding homework assignment. Points will be assigned to each section of the exam. Partial credit will be awarded according to work shown. No re-takes will be allowed. No make-up exam will be given. If you miss an exam, you must take the final exam.

The FINAL EXAM is scheduled for **Friday, December 13, at 2:00-4:00**. It will be comprehensive and will be graded similarly to the other exams. A student may elect to omit the final exam, if both exams and the project have been completed.

Reading Assignments:

Week	Topic	Text Sections
1	Survey Sampling techniques, Descriptive Statistics	1-2 and Handout, 2-1, 2-2, 2-3, 2-4, 2-5
2	Point Estimation	4-1, 4-2, and Handout
3	Confidence Intervals	4-4.5 and 4-4.6
4	Hypothesis Testing	4-3 and 4-4
5	Inference for a Mean with Variance Unknown	4-5
6	Inference for a Variance, Goodness of Fit, Probability Plots	4-6 and 4-10, 3-6
7	Two-Sample Problems	5-1, 5-2, 5-3, 5-4
8	Single-Factor ANOVA	5-5, 5-8.1, and Handout
9	Blocking	5-8.2
10	Two-Factor Experiments	7-1, 7-2, 7-7
11	Simple Linear Regression	6-1 and 6-2
12	Multiple Regression	6-3
13	Multiple Regression (cont.)	6-4
14	Inference for a Proportion	4-7
15	Inference for Several Proportions	5-6 and Handout

Academic Integrity:

The Department of Industrial and Systems Engineering adheres to the University's policies and procedures governing academic integrity as described in SCampus. Students are expected to be aware of and to observe the academic integrity standards described in SCampus. Students should expect those standards to be enforced in this course.

Accomodations for Disabilities:

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to the instructor as early in the semester as possible. DSP is located in STU 301 and is open 8:30 am - 5:00 pm, Monday through Friday. The phone number for DSP is (213)740-0776.