STAT6304 Advanced Statistical Inference           Fall 2014

Lecture: Section 1:
Tu 2:00PM - 3:50PM at Sc S 205
Th 2:00PM - 3:50PM at Sc S 146

Section 2:
Tu 6:00PM - 7:50PM at Sc N 207
Th 6:00PM - 7:50PM at Sc S 146

Instructor: Dr. Shenghua (Kelly) Fan
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Office hours TuTh 12:20 pm – 1:50 pm
Class website  http://www.sci.csueastbay.edu/~sfan

PREREQUISITE
Integral calculus: specifically, course equivalent to MATH 1305 or MATH 1820.
Basic concepts of differential and integral calculus will be used during the course.

REQUIRED TEXTBOOK
Ott and Longnecker: An Introduction to Statistical Methods and Data Analysis, 6th edition,

COURSE GOALS/TOPICS TO BE COVERED
This course will cover Chapters 1-10 and several sections in Chapter 11. Lectures will
contain some topics not found in the text, including the use of software Minitab. Computer sessions will be held when necessary. A student is expected to master the
covered materials and to learn how to do a few procedures in Minitab. Explicitly, the
topics in this course are
• Descriptive statistics: graphical methods and numerical methods
• Basic probability concepts: sample space, event, probability, mutually exclusive,
independence, conditional probability
• Probability models: discrete models (binomial), continuous models (normal),
expectation and variability
• Sampling and sampling distributions: simple random sample, Central Limit Theorem
• Statistical inference: confidence intervals, statistical significance, hypothesis tests
• One-Way ANOVA and simple linear regression

SOFTWARE/HOMEWORK
Weekly assignment is posted on the class webpage but NO submission of homework
assignment is required. Students are required to master Minitab but are allowed to use
R to do their work.

This syllabus is available on BlackBoard.
PROJECT/EXAMS

Three midterm exams will be given in class on Oct 14, Nov 06 and Nov 25. You are expected to bring your Student I.D. for identification for exams. A group project will be given at the end of quarter.

Warning: Any student caught cheating during any exams will immediately get zero score for that exam. During exams, it is your obligation to keep your work out of the sight of others.

Important: You are expected to complete all work and take all exams according to announced schedules. There are no makeup exams and a zero score is given to the missed exams. If you must miss an exam due to documented illness or emergency and provide the necessary document in 3 days from the exam date, I might agree to make some arrangement.

GRADING

- 25% for each exam
- 25% for the final group project

I do not grade on the curve. The approximate total scores separating letter course grades are shown below:

A 90   B 80   C 70

The Statistics Department follows very carefully the rules as stated in the Catalog for giving W (weeks 4-7) and IN (8th week on) grades. In particular, you will not receive a W or IN grade if the only reason is poor academic performance.

CLASSROOM COURTESY

- Cell phones must always be turned off during class.
- No eating, drinking, reading newspapers, or surfing internet is permitted in classrooms and computer labs.
- Please arrive on time and remain for the full class.
- Conversations with other students are not allowed and please raise your hand when you have a question.

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**Emergency Information**

California State University, East Bay is committed to being a safe and caring community. Your appropriate response in the event of an emergency can help save lives. Information on what to do in an emergency situation (earthquake, electrical outage, fire, extreme heat, severe storm, hazardous materials, terrorist attack) may be found at:

http://www.aba.csueastbay.edu/EHS/emergency_mgnt.htm

Please be familiar with these procedures. Information on this page is updated as required. Please review the information on a regular basis.

**Policy on Academic Dishonesty:**

The University has a published policy on cheating and academic dishonesty. Students are expected to be familiar with the policy and to abide by it. Cheating will result in: 1) a zero score on the test and the loss of all grading options; and/or 2) an "F" grade for the course; and/or 3) referral to the Academic Vice President for expulsion from the University.

By enrolling in this class the student agrees to uphold the standards of academic integrity described in the catalog at [http://www20.csueastbay.edu/academic/academic-policies/academic-dishonesty.html](http://www20.csueastbay.edu/academic/academic-policies/academic-dishonesty.html).

**Accommodations for Students with Disabilities:**

If you have a documented disability and wish to discuss academic accommodations, or if you would need assistance in the event of an emergency evacuation, please contact me as soon as possible. Students with disabilities needing accommodation should speak with Accessibility Services.

[http://www20.csueastbay.edu/af/departments/as/](http://www20.csueastbay.edu/af/departments/as/)

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