

California State University, Long Beach, Dept. of Math and Stat

STAT530, Experimental Design and Analysis Spring 2011

Instructor: Prof. Sung Kim, FO3 206, e-mail skim43@csulb.edu, phone 54320,
Office hours TTh 1-3pm .

Any office hour may be canceled due to illness or necessary appointments, and students should not therefore depend on the faculty being in his office for a particular office hour. Students thus should secure any necessary signatures or other requirements well in advance of any deadline.

Lecture: TTh 5:30-6:45pm, LA5-243, course web <http://www.csulb.edu/~skim43/stat530/stat530.htm>

Goal: We discuss Analysis of Variance (ANOVA) in both theoretical and practical aspects. However, most of problems in homework, exams, and project are practical. During this semester we will study single-factor and two-factor ANOVA, random, fixed, and mixed effects model, some standard experimental designs, and repeated measures. This course will include computation and statistical programming in SAS. Short handouts about the SAS codes will be given whenever necessary. Note that detailed instructions using SAS other than those handouts will NOT be given.

Textbooks: Required: D. Montgomery, Design and Analysis of Experiments, 7th edition, Wiley (ISBN 978-0-470-12866-4)

We will cover Chapters 1 ~ 8, 13, and 14. You are responsible for all material in the lectures and readings unless told otherwise.

Homework assignments: One set of HW problems for each chapter (small chapters may be combined). The due dates will be announced during class. Try to start doing homework earlier and ask question during class-I will give you hints if asked. You may work with other students on the homework assignments, but you must write up and hand in your own solutions.

Exams: We will have two in-class exams and the final project. Tentative schedule for the exams is TBA

Project: The final project is very important part of the course. This is a team project with two or three members in a team. You are allowed to work alone but no extra credit will be given. Two written interim project reports are required (one for planning and data and another for designing) along with a final written project report. Due dates for each item will be announced in class. More details about the project will be given in class.

Grading:

- 30% homework
- 20% Exam I
- 20% Exam II
- 30% final project

The distribution of the grades will follow a curve.