



DESIGN AND ANALYSIS OF EXPERIMENTS

Math 261 B – Fall 2012

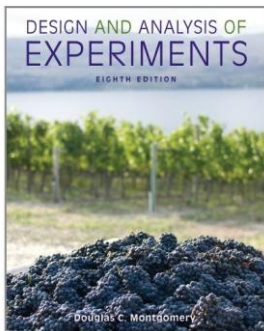
Instructor Information: Olga Kovaleva, Department of Mathematics
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course website*: www.sjsu.edu/people/olga.kovaleva

Time and Classroom: Monday & Wednesday, 4:00 – 5:15 pm, MH 320

Text book: Design and Analysis of experiments, by Douglas C. Montgomery, the 8th ed.,
Wiley, 2012, ISBN: 978-1118146927

Course Description:

Design of experiments is a discipline that has very broad application across all the natural and social sciences. The primary goal of design of experiments is the efficient allocation of resources to maximize the amount of information obtained with a minimum possible expenditure of time and effort. This course covers the principles of experimental design, the analysis of variance method, the difference between mixed and random effects and between nested and crossed effects. The designs covered include Completely Randomized, Randomized Complete Block, Latin squares, factorial, Nested, Split-plot, Crossover and



Repeated Measures. Replication, randomization, sampling, and model development will be emphasized, in presentations of both theory and practical applications, with computation.

Powerful statistical software SAS will be used to perform statistical analysis of data. Knowledge of SAS is an asset in many job markets. For example, SAS is widely used throughout the FDA regulated industry.

Prerequisites: Math 261A or Math 161B

* The information regarding the course will be posted on the website one week before the beginning of the semester.