

King Saud University

# IE 431 Design and Analysis of Experiments

Semester 1 (2008/09)

**Learning Objective:** To provide students with understanding of the principles of statistical design of experiments and their analysis supported with real-life industrial applications.

## Course Outline

1. Introduction \*
2. Simple Comparative Experiments \*
3. Experiments with a Single Factor: The Analysis of Variance \*
4. Randomized Blocks, Latin Squares and Related Designs \*
5. Introduction to Factorial Designs \*
6. The  $2^k$  Factorial Designs \*
7. Introduction to SPSS version 16

\* From “Design and Analysis of Experiments” book by Douglas C. Montgomery (6<sup>th</sup> edition)

## Grades Distribution:

40% Midterms

10% Project

40% Final

10% Performance (homeworks, quizzes, attendance, participation in discussions)

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