

King Fahd University of Petroleum and Minerals

DEPT OF MATHEMATICS AND STATISTICS, DHAHRAN, SAUDI ARABIA

MATH 560: APPLIED REGRESSION AND EXPERIMENTAL DESIGN SPRING/ SECOND SEMESTER (102): FEB TO JUN, 2011

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Consulting Hours: 1000-1150 (Sat and Mon) or by appointment

Text: Montgomery, D.C. (2007). Design and Analysis of Experiments. 7th edition, Wiley, New York.

Aim: Preparing students to design experiments, and to use statistical techniques therein that help make objective decisions in the face of uncertainty.

Week	Chapter	Topics	Activities	Weight
W1	2	Comparative Experiments	HW and Exam	25%
W2-W3	3	Single-Factor Experiments		
W4	4	RCBD and LSD		
W5	5	Factorial Designs	HW and Exam	25%
W6-W7	6	2^k Factorial Designs		
W8-W9	7	Confounding & Blocking in 2^k Factorial Designs	HW or Project	20%
W10	8	2-level Fractional Factorial Designs		
W11	9	3^k Factorial Design		
W12	12	Experiments with Random Factors	Final Exam	30%
W13	10	Simple Linear Regression		
W14	10	Diagnostics; Distribution theory		
W15	10	Multiple Linear Regression		