

 **STATISTICS 430-3**
STATISTICAL DESIGN AND ANALYSIS OF EXPERIMENTS

Fall 2005
DAY COURSE

Students requiring accommodations as a result of disability, must contact the Centre for Students with Disabilities 604-291-3112 or csdo@sfu.ca

Prerequisites:

STAT 350 (or MATH 372).

Textbook:

Design of Experiments: Statistical Principles of Research Design and Analysis, 2nd Edition by Robert O. Kuehl, published by Duxbury.

Calendar Description:

An extension of the designs discussed in STAT 350 to include more than one blocking variable, incomplete block designs, fractional factorial designs, and response surface methods.

Outline:

1. Review of blocking and factorial designs.
 2. Two-way blocking and Latin Squares.
 3. Fractional factorials.
 4. More elaborate designs based on Latin squares and incomplete blocks.
 5. Response surface methods. Optimization under uncertainty. Parametrization of complex phenomena.
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Grading:

Assignments – 10%
Exam 1 – 20%
Exam 2 – 20%
Final Exam – 50%

Students should be aware that they have certain rights to confidentiality concerning the return of course papers and the posting of marks. Please pay careful attention to the options discussed in class at the beginning of the semester. Students are reminded that Academic Honesty is a cornerstone of the acquisition of knowledge. Scholarly integrity is required of all members of the University. Please consult the General Guidelines of the calendar for more details.

Revised May 2005