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

**Fall 2004**
**DAY COURSE**

## Instructor: Boxin Tang

## Prerequisites:

STAT 350 (or MATH 372). Students with credit for MATH 404 may not take STAT 430 for further credit.

## Textbook:

*Design & Analysis of Experiments, 5th Edition* by D.C. Montgomery, published by Wiley.

## 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.

## Grading:

To be announced at the start of class

Revised April 2004