

# ISE 407/507 Spring 2004

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**Prereq:** ISE 517  
**Text:** Design and Analysis of Experiments, Montgomery, 5<sup>th</sup> Ed., Wiley

## Course objective:

Design and analysis of engineering experiments approached from linear statistical model point of view. Blocking designs, full and fractional factorial designs, analysis of variance, and introduction to response surface methodology.

## Grade distribution:

Midterm 1 (Wednesday, April 21)	30.0%
Midterm 2 (Monday, May 10)	30.0%
Final Exam (Wednesday, June 9 @ 8:00 AM)	40.0%

## Inclement weather policy:

No one will be required to travel to and from class when safety is an issue.

## Scholastic dishonesty policy:

At the discretion of the instructor, a grade of 'F' will be awarded for the first offense. In addition, at the discretion of the instructor, the case will be referred to the Judiciary Office.

## Make up exam policy:

Only if university excused.

## Attendance policy:

Attendance is not required but it is encouraged. Prior notification is also encouraged.

## Course topics:

- Simple comparative experiments (Chp. 2)
- Single factor experiments (Chp. 3)
- Randomized blocks, Latin squares, and related designs (Chp. 4)
- Introduction to factorial designs (Chp. 5)
- The 2k factorial design (Chp. 6)
- Blocking and confounding in the 2k designs (Chp. 7)
- Two level fractional factorials (Chp. 8)
- Three level factorial designs (Chp. 9)
- Fitting regression models (Chp. 10)
- Response surfaces (Chp. 11)