

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

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**Spring 2001**  
**DAY COURSE**

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**Instructor: Dr. R. SITTER**

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**Prerequisite:**

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

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**Textbook:**

*Design of Experiments, 4th Edition* by D.C. Montgomery, published by Wiley.

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**Calendar Description:**

An extension of the designs discussed in STAT 330 to include more than one blocking variable, incomplete block designs, fractional factorial designs, and response surface methods.

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**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 - 30%  
Midterm(s) - 30%  
Final Exam - 40%

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*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.*

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