

**STA 6208 - Basic Design & Analysis of Experiments**  
**Spring 2015 - Section 0015**  
**IVIWF 2 @ Griffin/Floyd 100**

**Instructor:** Dr. Larry Winner

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**Textbook Information:**

Title: Design of Experiments: Stat Prin etc ISBN: 9780534368340 Type: Book Author: Kuehl Edition: 2nd Copyright: 2000  
Publisher: Cengage Learning

**Tentative Exam Dates/Times & Homework (Pending 6327 and 2023 exams):**

- Exam 1 - February 13, 7:30-9:20AM (25%)
- Exam 2 - March 20, 7:30-9:20AM (25%)
- Final Exam - April 20, 7:30-9:20AM (30%)
- Homework Projects - Approximately 8 (20%)

**Course Policies:**

- Prerequisite: STA 6207.
- Turn off cell-phones and all electronic devices (except calculators) during class and exams.
- Exams are closed-book/notes. Any relevant tables will be supplied.
- E-mail is a terribly inefficient way to teach statistics. If you'd like to see a particular problem worked out in class, send a request in advance. Do not expect a typed detailed response. E-mail is not a substitute for attending instructor and TA office hours.
- Note: Some course topics listed below were covered in STA 6207 and will be assumed without full "treatment".
- Most Computing will be done using SAS or R. When feasible, many examples will be done in spreadsheet format for illustration of principles.
- All grades are final and not negotiable.

## **Tentative Course Topics:**

- Introduction to Experimental Design (Chapter 1)
- Randomization and Design (Chapter 1)
- Completely Randomized Design (Chapter 2)
- Treatment Comparisons (Chapter 3)
- Checking Model Assumptions\* (Chapter 4)
- Random Effects Designs (Chapter 5)
- Factorial Designs (Chapter 6)
- Random, Mixed, and Nested Effects Designs (Chapter 7)
- Complete Blocks and Latin Squares (Chapter 8)
- Balanced Incomplete Block Designs (Sections 9.1-9.4)
- Full and Fractional Two-Level factorials (Sections 11.1-11.4,12.1-12.5)
- Analysis of Covariance (Sections 17.1-17.2)
- Split-Plot Designs (Sections 14.1-14.5)
- Repeated Measures Designs (Section 15.1-15.5)
- Crossover Designs (Sections 16.1-16.3)