

STA 6208 – Basic Design & Analysis of Experiments
Spring 2020 – Section 19305
MWF 2 @ Griffin/Floyd 100

Instructor: Dr. Larry Winner

Office: 228 Griffin/Floyd

E-mail: winner@stat.ufl.edu

Phone: (352) 273-2995

Office Hours: TBA

Web Page: www.stat.ufl.edu/~winner/

TA: Yiqiao Zhang, Office Hours: TBA E-mail: yiqiaozhang@ufl.edu Office: TBA

Textbook/Course Notes Information:

Course Note Package: Available at Target Copy Center (Do Not Print Out on Statistics Department Copiers)

Alternative Textbook (Do Not Print Out on Statistics Department Copiers)

Title: A FIRST COURSE IN DESIGN & ANALYSIS OF EXPERIMENTS

Author: OEHLERT

Edition: 1ST

<http://users.stat.umn.edu/~gary/Book.html>

Tentative Exam Dates/Times & Homework:

- Exam 1 - February 10, 7:30-9:20AM (25%)
- Exam 2 - March 13, 7:30-9:20AM (25%)
- Final Exam - April 20, 7:30-9:20AM (25%)
- Homework Projects – Approximately 8 (25%)

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.
- No early exams will be given.

- If due to medical or academic conference reasons, any make-up exams must be taken within 7 days of scheduled exam time.
- 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.
- Grades are not negotiable.

Tentative Course Topics:

Note: Matrix approach and Mixed Model Analyses will be used in some different forms than text covers.

- Introduction to Experimental Design (Oehlert Chapter 1)
- Inference Concerning 1 and 2 Means and Variances (Sections 1.10-1.13 Course Notes / Oehlert Chapter 2)
- Completely Randomized Design
 - Sums of Squares, ANOVA, Parameter Estimates, Power Considerations (Chapter 2 Course Notes / Oehlert Chapters 3, 7(Power))
 - Treatment Contrasts (Chapter 2 Course Notes / Oehlert Chapter 4)
 - Multiple Comparison Techniques (Chapter 3 Course Notes / Oehlert Chapter 5)
 - Model Diagnostics/Remedies (Course Notes Chapter 4 / Oehlert Chapter 6)
- Factorial Designs for Fixed Effects (Course Notes Chapter 5 / Oehlert Chapters 8 & 9)
- Random Effects Designs (Course Notes Chapter 6 / Oehlert Chapter 11)
- Mixed Effects Designs (Course Notes Chapter 7 / Oehlert Chapter 12)
- Models with Nested Factors (Course Notes Chapter 8 / Oehlert Chapter 12)
- Complete Blocks and Latin Squares (Course Notes Sections 9.1-9.6 / Oehlert Sections 13.1-13.3.5)
- Balanced Incomplete Block Designs (Course Notes Section 9.7/ Oehlert Section 14.1)
- Full and Fractional Two-Level factorials (Course Notes Sections 10.1-10.3 / Oehlert Sections 10.4,15.1,18.1-18.2)
- Response Surface and Mixture Designs (Course Notes Sections 10.4-10.5/ Oehlert Chapter 19)
- Analysis of Covariance (Oehlert Sections 17.1-17.2)
- Split-Plot Designs (Course Notes Chapter 11 / Oehlert Sections 16.1-16.3)
- Repeated Measures Designs (Course Notes Chapter 12 / Oehlert Section 16.6)

Course Grade Cut-offs:

A	A-	B+	B	B-	C+	C	C-	D	E
93	88	83	75	65	50				

Attendance/Exam/Assignment Policies: While attendance is not taken, students are expected to attend lectures and participate in class. Make-up exams will only be considered with documented medical event or conference attendance (graduate students). Early exams will be given under no circumstances. Assignments are to be handed in during class on the date the assignment is due in paper format. Electronic submission of assignments will not be accepted. Turn off cell phones during classes.

Academic Accommodations: If you have a documented disability and wish to discuss academic accommodations with me, please contact me as soon as possible.

University Grading Points:

A	A-	B+	B	B-	C+	C	C-	D	E
4	3.67	3.33	3	2.67	2.33	2	1.67	1	0

Online Course Evaluations: The University has an online course evaluation system. Late in each semester (after final withdrawal date), students can go to the GATORRATER portal and evaluate courses. The website is located at: <https://evaluations.ufl.edu/evals/Default.aspx>.

University Policies:

Academic Dishonesty: All members of the University Community share the responsibility to challenge and make known acts of apparent academic dishonesty. Acts of academic dishonesty will not be tolerated and will be referred to the Student Honor Council.

Campus Resources:

Counseling and Wellness Center: <http://www.counseling.ufl.edu/cwc/>

Academic Resources: <http://www.ufl.edu/academics/resources/>

Disability Resource Center: <https://www.dso.ufl.edu/drc/>

Student Health Care Center: <http://shcc.ufl.edu/>