

SYLLABUS
Design of Experiments
Statistics 590, Section 01
Fall 2018
Monday 6:40–9:30
Science & Engineering Resource Center 210

Steve Buyske (Buyske rhymes with “nice key”)
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Room 559 Hill Center
Office Hours: Monday 5:00–6:00,
Wednesday 4:30–5:30 (but not Oct 17),
and by arrangement

Text: *First Course in Design and Analysis of Experiments*
by Gary Oehlert, available under the Creative Commons license at
<http://www.stat.umn.edu/~gary/Book.html>
A physical copy is on reserve in the Mathematical Sciences Library, Hill Center.
Sakai Site: <https://sakai.rutgers.edu/x/Q13WKp>

We will cover most of the material in Chapters 1–3, 10, 17–19 and parts of Chapters 14–17.

Simple SAS programming will be included, but there is no expectation of prior SAS experience. You can obtain a free version of SAS at https://www.sas.com/en_us/software/university-edition.html).

Class lecture notes will not be posted, but there will be an audio recording of each lecture posted to Sakai. Of course technology does not always cooperate and the recording of all or part of a lecture may be unavailable.

Weather-related cancellation: Class will be canceled due to weather only when classes are officially closed (see <http://emergencymanagement.rutgers.edu/Weather.php>). However, no one should feel they must attend class if they personally feel travel conditions are, or may become, unsafe.

Note that Columbus Day is not observed at Rutgers; we will have class that day.

<i>Final Grade Based on the Following</i>	
2 Take-Home Quizzes	30%
Mid-Term on October 22	30%
Design Project (details TBA)	10%
Final on December 17, 8–11 pm	30%

The Rutgers University Academic Integrity Policy applies to this course
<http://academicintegrity.rutgers.edu/academic-integrity-policy/>

The following is a rough guide to weekly coverage, but we will adapt it as circumstances require.

Week 1	Introduction
Week 2	Balanced Completely Randomized Designs and ANOVA
Week 3	More on Balanced Completely Randomized Designs and ANOVA
Week 4	After ANOVA: Contrasts, Multiple Comparisons
Week 5	Factorial Designs and Analysis
Week 6	More on Factorials
Week 7	Midterm
Week 8	Random Effects
Week 9	Nested Designs; Mixed Effects
Week 10	Blocking
Week 11	Balanced Incomplete Block Designs and Split Plot Designs
Week 12	More on Split Plot Designs; Covariates; Power
Week 13	Small Topics and Catch Up
Week 14	Small Topics and Catch Up

Student-Wellness Services:

Counseling, ADAP & Psychiatric Services (CAPS)

(848) 932-7884

17 Senior Street, New Brunswick, NJ 08901

<http://health.rutgers.edu/medical-counseling-services/counseling/>

Counseling services are offered through Counseling, Alcohol & Other Drug Assistance Program and Psychiatric Services (CAPS), the University mental health support service. They develop an individualized action plan for each student based on the student's unique needs and the range of resources available at CAPS, within the University, and in the surrounding community. Services include crisis intervention, individual therapy, group therapy, a variety of workshops, alcohol and other drug assistance programs, and psychiatric care (medication management).

Violence Prevention & Victim Assistance (VPVA)

(848) 932-1181

3 Bartlett Street, New Brunswick, NJ 08901

<http://www.vpva.rutgers.edu>

The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling and advocacy for victims of sexual and relationship violence and stalking to students, staff and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932-1181.

Disability Services

(848) 445-6800

Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854

<https://ods.rutgers.edu/>

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation: <https://ods.rutgers.edu/students/documentation-guidelines>. If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at: <https://ods.rutgers.edu/students/registration-form>.