



Experimental Design 2018/2019

[Statistical Sciences 4846A/9846A](#)

Course Outline

Instructor Information

Instructor	Serge Provost
Office	WSC 280
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Office Hours	TBA

Course Information

Course Description Completely randomized designs, randomized complete and incomplete block designs, factorial and fractional factorial designs, latin square designs, hierarchical designs, random and fixed effect models, quadratic forms and related concepts.

Prerequisites [SS3843A/B](#) or [SS2858A/B](#) and [SS3859A/B](#)

Antirequisites The former Statistical Sciences 3846A/B.

Pre,Co-requisites Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course which will be deleted from your record. According to regulations, you could be deregistered at any time. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

Warning

Lecture Hours Monday, Wednesday, Friday: 9:30 -10:20 a.m., WSC 248

Book Information

Text Book(s)

Design and Analysis of Experiments by D.C. Montgomery (Wiley). Recommended

Reference Books

Statistics for Experimenters, Design, Innovation and Discovery, 2nd edition, (Wiley)
by George E. P. Box, J. Stuart Hunter and William G. Hunter.

Not required

Library Reserved Books

The recommended textbook as well as the reference textbook are available at the Taylor Library's service desk.

Course Objectives

To make use of appropriate designs when analyzing various types of experimental data, and then to be able to test relevant hypotheses and interpret the results.



Assessment

Presentation

No assignments but students will be required to give an oral presentation - worth 25% of the course mark

Tests

Two in-class tests, each worth 25%, the first one to take place on Wednesday October 17th and the second one, on November 21st. In the event that one misses a test and provides the required supporting documentation, the other test will be worth 35%, the oral presentation 35% and the final project 30%. If one legitimately misses the first test, the presentation must take place by October 24th.

Final Project

No final exam but a final project worth 25%

Course Website Information

fisher.stats.uwo.ca/courses/SS4846
(without www)

Computing and/or Calculator Requirement

A non-programmable calculator will be needed for the tests.

Class Notes and Notifications

Please refer regularly to the course website for accessing the class notes and notifications.

Department Policy on Missed Course Requirements and Student Health and Wellness

If you are unable to meet a course requirement due to illness or other serious circumstances, you must provide valid medical or other supporting documentation to your Dean's office as soon as possible, and contact your instructor immediately. If accommodation is approved by your Dean's office, your instructor will be notified, then it is your responsibility to make alternative arrangements with your instructor. In the event of a missed final exam, a "Recommendation of Special Examination" form must be obtained from the Dean's Office immediately. For further information please see: http://www.stats.uwo.ca/accommodation_medical.pdf. A student requiring academic accommodation due to illness, should use the Student Medical Certificate when visiting an off-campus medical facility. The form can be found at: <http://www.stats.uwo.ca/medicalform.pdf>. Or, request a Record's Release Form (located in the Dean's Office) for visits to Student Health Services.

Missed Midterm or Test: The policy of the department of Statistical and Actuarial Sciences is that there will be no make-up exams for a missed midterm. For those that do legitimately - that is, with a valid reason - miss a midterm and provide the required supporting documentation, the standard practice will be that the weight of the midterm will be reassigned to the final exam.

Student Health and Wellness: As part of a successful student experience at Western, we encourage students to make their health and wellness a priority. Western provides several on campus health-related services to help you achieve optimum health and engage in healthy living while pursuing your degree.



For example, to support physical activity, all students, as part of their registration, receive membership in Western's Campus Recreation Centre. Numerous cultural events are offered throughout the year. Please check out the Faculty of Music web page <http://www.music.uwo.ca/>, and our own McIntosh Gallery <http://www.mcintoshgallery.ca>. Information regarding health- and wellness-related services available to students may be found at <http://www.health.uwo.ca/>.

Students seeking help regarding mental health concerns are advised to speak to someone they feel comfortable confiding in, such as their faculty supervisor, their program director (graduate chair), or other relevant administrators in their unit. Campus mental health resources may be found at http://www.health.uwo.ca/mental_health/resources.html.

To help you learn more about mental health, Western has developed an interactive mental health learning module, found here: http://www.health.uwo.ca/mental_health/module.html. This module is 30 minutes in length and provides participants with a basic understanding of mental health issues and of available campus and community resources. Topics include stress, anxiety, depression, suicide and eating disorders. After successful completion of the module, participants receive a certificate confirming their participation.

Accessibility: Please contact the course instructor if you require lecture or printed material in an alternate format or if any other arrangements can make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 661-2111 ext. 82147 if you have questions regarding accommodation.

Support Services: Learning-skills counsellors at the Student Development Centre (SDC) (<http://www.sdc.uwo.ca>) are ready to help you improve your learning skills. They offer presentations on strategies for improving time management, multiple-choice exam preparation/writing, textbook reading, and more. Individual support is offered throughout the Fall/Winter terms in the drop-in Learning Help Centre, and year-round through individual counselling.

Additional student-run support services are offered by the USC, <http://westernusc.ca/services>.

The website for Registrarial Services is <http://www.registrar.uwo.ca>.

Email Communication

You are welcome to communicate with your instructor by email, but email communication should only be used to provide them with information or to ask a question that requires a brief response. For more lengthy discussions and for discussions on lectures/course material please see your instructor during their scheduled office hours or by appointment. If you do email them, please use your UWO account, as these are often the only emails read (as emails sent from other addresses often get spammed).

Attendance

Classroom attendance is viewed as an important part of the learning process. Students are advised that excessive absenteeism may result in the student being disbarred from the final exam (see Western Academic Calendar).

Classroom Environment

The Department has adopted a "Mutual Expectations" policy governing the classroom environment and all work submitted by students. The full text of the policy can be found at: <https://www.uwo.ca/stats/undergraduate/mutual-expectations.html> In summary, the policy was developed under the premise that all interactions between students and faculty should be governed by the principles of courtesy, respect and honesty.