

Fall 2019
Department of Statistical and Actuarial Sciences

Statistical Science 4846A/9846A

Experimental Design

Instructor:	Wenqing He
Office:	WSC213
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E-mail:	whe@stats.uwo.ca
Lecture:	MWF 9:30-10:30 am in WSC 248
Office Hours:	Thu. 2:30-3:30pm, or by appointment
Prerequisites:	A minimum mark of 60% in SS3843A/B or SS2858A/B and SS3859A/B
Antirequisites:	The former Statistical Sciences 3846A/B.
Pre, Co-requisites Warning:	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.
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.
Course Objectives:	To become familiar with the use of different statistical experimental designs, and to be able to perform detailed statistical analyses in connection with standard designed experiments.
Textbook:	<i>Design and Analysis of Experiments</i> , by D. C. Montgomery, John Wiley & Sons
Reference Book	<i>Statistics for Experimenters, Design, Innovation and Discovery</i> , 2nd edition, (Wiley) by George E. P. Box, J. Stuart Hunter and William G. Hunter.
Methods of Evaluation:	20% Assignments + 15% Quizzes + 35% Tests + 30 % Project
	Four Assignments Due in Class: Sep. 25 Oct. 18 Nov. 13 Dec. 2
	Two In-class Quizzes (10:00-10:20am at WSC248): Sep. 27

Nov. 1

Two In-class Tests (9:30-10:20am at WSC248):

Oct. 11

Nov. 29

Project due: Dec. 18, 11:59pm: submit through email

Note: There will be no make up tests. No late assignment is allowed. You are allowed to discuss your assignments, but everyone has to write the assignment himself/herself. No copy is allowed. Final project is a group project. At most three students in each group. In the project report, each of you has to report your role in the project

Calculators: Non-programmable calculators are allowed for the tests.

Aid Sheet: One double sided letter size aid sheet is allowed for each test.

Accommodation and Accessibility: If you are unable to meet a course requirement due to illness or other serious circumstances, you must provide valid medical or supporting documentation to the Academic Counselling Office of your home faculty as soon as possible. If you are a Science student, the Academic Counselling Office of the Faculty of Science is located in WSC 140, and can be contacted at scibmsac@uwo.ca. For further information, please consult the universitys medical illness policy at http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_medical.pdf. If you miss the Final Exam, please contact your facultys Academic Counselling Office as soon as you are able to do so. They will assess your eligibility to write the Special Exam (the name given by the university to a makeup Final Exam). You may also be eligible to write the Special Exam if you are in a Multiple Exam Situation (see http://www.registrar.uwo.ca/examinations/exam_schedule.html).

Academic Policies: The website for Registrarial Services is <http://www.registrar.uwo.ca>. In accordance with policy, <http://www.uwo.ca/its/identity/activatenonstudent.html>, the centrally administered e-mail account provided to students will be considered the individuals official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at his/her official university address is attended to in a timely manner. Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at these websites: undergraduates: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf, and graduates: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_grad.pdf.

**Support
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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. The policy on Accommodation for Students with Disabilities can be found here: www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_disabilities.pdf. The policy on Accommodation for Religious Holidays can be found here: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_religious.pdf. Learning-skills counsellors at the Student Development Centre (<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 yearround through individual counselling. Students who are in emotional/mental distress should refer to Mental Health@Western (http://www.health.uwo.ca/mental_health) for a complete list of options about how to obtain help. Additional student-run support services are offered by the USC, <http://westernusc.ca/services>.