



*Department of Statistical and Actuarial Sciences,*  
The University of Western Ontario

**Introduction to Study Design**  
**Statistical Sciences 3843A**  
2019

**Instructor Information**

Instructor: Serge Provost, Professor, Ph.D., A.S.A.  
Office: WSC 280  
E-mail: [sp@uwo.ca](mailto:sp@uwo.ca)  
Phone: 519 661-3624

**General Course Information**

Lecture hours: Mon,Wed,Fri 8:30 AM-9:20 AM, UCC Room 37

**Prerequisite Requirements**

A minimum mark of 60% in Statistical Sciences 2858A/B.

Unless you have either the prerequisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record.

**Course Description**

After a review of basic concepts in statistical inference, various types of experimental designs will be described with a view to determining the appropriate techniques for analyzing data collected in various fields of scientific investigation and drawing appropriate conclusions. As well, several sample survey techniques will be discussed.

This course aims at introducing the theory and practice of experimental design and survey sampling.

## Course Materials

There is no assigned textbook for the course.

The core lecture notes will be available on the course website:

[fisher.stats.uwo.ca/courses/SS3843](http://fisher.stats.uwo.ca/courses/SS3843)

which should be consulted on regular basis for announcements, course notes and updates. This is the primary method by which information will be disseminated to all students in the class.

The following textbook will be put on reserve in the Taylor Library:

The Design and Analysis of Experiments by Douglas C. Montgomery, Wiley

## Methods of Evaluation

The overall course grade will be calculated as follows:

*Three assignments* (every three weeks or so), each worth 7.5%

*Two in-class tests*, each worth 30%, the first one to take place on Wednesday October 16 and the second one on Wednesday November 20. In the event that one legitimately misses a test and provides the required supporting documentation, the other test will be worth 50%, each assignment, 10%, and the final project, 20%.

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

*A final project* worth 17.5%

## Academic Policies

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](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. Or, request a Record's Release Form (located in the Dean's Office) for visits to Student Health Services.

The department adopted a policy whereby there will be no make-up exams for missed tests. For those who legitimately miss an exam and provide the required supporting documentation, the standard practice consists in reassigning the weight of this exam to other evaluation components.

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

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at this website: [http://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/scholastic\\_discipline\\_undergrad.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf) .

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 [http://www.stats.uwo.ca/mutual\\_expectations.pdf](http://www.stats.uwo.ca/mutual_expectations.pdf) . 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.

## **Support Services**

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](http://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](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_religious.pdf)