

Statistical Computing (Statistics 4864A/9864A)

1. General Course Information

Statistics 4864A/9864A, Statistical Computing
Lectures: MWF 10:30-11:30 PM, WSC 248

Prerequisite Requirements

Enrolled in the graduate program in Statistics at Western and have taken a first course in mathematical statistics using calculus and linear algebra. Good understanding of linear equations and basic mathematics including algebra and geometry. A previous course in computing. Eagerness to learn R/RStudio including markdown/latex for document preparation as well as some other computing topics.

2. Instructor Information

Professor A. I. McLeod, PhD (1978).

WSC Room 235. Email: aimcleod@uwo.ca.

Students must use their Western (@uwo.ca) email addresses when contacting me about administrative matters. Discussions and questions should be posed either in class, immediately after class, in the tutorial or during afternoon office hours, 3-4pm.

3. Course Description: Statistical Computing with R. Topics from three textbooks will be discussed. These textbooks are freely available online in HTML or PDF.

(i) R for Data Science by Wickham and Grolemund, <http://r4ds.had.co.nz/>

(ii) Text Mining with R, Silge & Robinson, <https://www.tidytextmining.com/>

(iii) Introduction to Data Technologies, Murrell, <https://www.stat.auckland.ac.nz/~paul/ItDT/>

4. Course Materials

Laptop or personal computer with R/RStudio installed is highly recommended. Computers are also available in the Statistics Department Computing Lab (WSC 258).

Students should check OWL (<http://owl.uwo.ca>) on a regular basis for news and updates.

5. Methods of Evaluation

The overall course grade will be calculated as listed below:

Project 1	(due 26-10-2018)	50%
Project 2	(due 24-12-2018)	50%

Projects must be prepared using RStudio markdown (latex PDF). Project should use tidyverse and other methods discussed in class. Must uploaded to 4864 OWL both PDF and RMD files required.

Summary of Grading Rubric for Project

- 25% for choice of interesting dataset
- 25% correctness and substance
- 25% organization and correct English
- 25% originality and insight

6. 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 university's 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 faculty's 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).

7. 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 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.

No electronic devices are permitted on quizzes or the final exam.

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.

8. 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

The policy on Accommodation for Religious Holidays can be found here: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_religious.pdf

This course is supported by the Science Student Donation Fund. If you are a BSc or BSc student registered in the Faculty of Science or Schulich School of Medicine and Dentistry, you pay the Science Student Donation Fee. This fee contributes to the Science Student Donation Fund, which is administered by the Science Students' Council (SSC). One or more grants from the Fund have allowed for the purchase of equipment integral to teaching this course. You may opt out of the Fee by the end of September of each academic year by completing paperwork in the Faculty of Science's Academic Counselling Office. For further information on the process of awarding grants from the Fund or how these grants have benefitted undergraduate education in this course, consult the chair of the department or email the Science Students' Council at ssc@uwo.ca.