

THE UNIVERSITY OF WESTERN ONTARIO  
LONDON CANADA

School of Health Studies

Health Sciences 3801b  
Research Methods and Analysis in the Health Sciences

1.0 CALENDAR DESCRIPTION

An introduction to measurement and analysis in health sciences research, covering topics such as validity, reliability, standard errors, confidence intervals, tests of means, correlation, and linear regression.

**Prerequisites:** Health Sciences 2801a/b or equivalent

**Antirequisites:** All other University-level statistics courses at the 2000 level or above

2.0 COURSE INFORMATION

Instructor: Dr. Andrew Johnson  
Elborn College, Room 2531  
[ajohnson@uwo.ca](mailto:ajohnson@uwo.ca)  
Office Hours: Thursdays, 10:30am to 1:30pm  
Course Website: <https://owluwo.ca>

Times and Location of Lectures:

Thursdays 12:30pm to 2:30pm Natural Sciences, Room 1

3.1 TEXTBOOKS

There are no required textbooks for this course. Where appropriate, practice questions and data will be posted on the web.

3.2 CALCULATOR

You will need a calculator with a "stats mode" for this course. You should choose a calculator that is easy to use, rather than one that has a lot of functions not needed for this course. A calculator sufficient for this course cost approximately \$15 to \$35. If you currently have a calculator, and are unsure if it is adequate, you may show it to me after a lecture, or during office hours. Bring your calculator to all lectures, labs, and tests. Some calculators are complex. It is a good idea to hang onto the instruction manual until you are sure that you know how to use it.

4.0 COURSE OBJECTIVES

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Exam #1: The first exam for this course will cover course material presented (either in class, or through WebCT) between 2011.01.06 and 2011.02.17 (inclusive). The test will consist solely of multiple choice questions, and will be closed book.

6.0 LECTURE / LAB SCHEDULE

	Lecture Topics
2011.01.06	Course Introduction
2011.01.13	Summarizing Data
2011.01.20	Introduction to Hypothesis Testing
2011.01.27	Single Sample Inference
2011.02.03	Correlation and Regression
2011.02.10	Analysis of Count Data I
2011.02.17	Analysis of Count Data II
2011.03.03	Midterm Examination
2011.03.10	Two Sample Inference I

## 7.2 POLICY REGARDING ILLNESS

The University recognizes that a student's ability to meet his/her academic responsibilities may, on occasion, be impaired by medical illness. Illness may be acute (short term), may be chronic (long term), or chronic with acute episodes. The University further recognizes that medical situations are deeply personal and respects the need for privacy and confidentiality in these matters. However, in order to ensure fairness and consistency for all students, academic accommodation shall be granted only in those cases where there is documentation indicating that the student was seriously affected by illness and could not reasonably be expected to meet his/her academic responsibilities. Documentation shall be submitted, as soon as possible, to the appropriate academic counsellor (the Office of the Dean of the student's Faculty of registration/home Faculty) together with a request for relief specifying the nature of the accommodation requested. For this course, you are to contact the academic counselors in the main office of the School of Health Studies. Documents submitted in this fashion will be retained in your file, and will be held in confidence in accordance with the University's Official Student Record Information Privacy Policy [<http://www.uwo.ca/univsec/handbook/general/privacy.pdf>].

Once the petition and supporting documents have been received and assessed, appropriate academic accommodation shall be determined by the Dean's Office (Academic Counsellor) in consultation with the instructor. Academic accommodation may