

**THE UNIVERSITY OF GUELPH**  
**DEPARTMENT OF MATHEMATICS AND STATISTICS**  
**STAT\*2050: Statistics II**  
**Course Outline in Brief**  
**Fall 2015**

INSTRUCTOR: Gary J. Umphrey

OFFICE: MacNaughton 551

OFFICE HOURS: Monday 1:30–3:30 & Thursday 10:00–12:00 (to end of classes)

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TEXT: We will not have a text that you are required to buy. Instead we will use chapters of books available online through the University of Guelph Library. The two key books and chapters are:

- (1) Regression Analysis by Example, 4<sup>th</sup> ed., by S. Chatterjee & A. S. Hadi (Wiley, 2006). We'll cover material (in whole or in part) in chapters 1–6, 11, and (time permitting) possibly 12.
- (2) Design and Analysis of Experiments in the Health Sciences, by G. Van Belle and K. Kerr (Wiley, 2012). We'll cover material in chapters 1–5.

In addition to the mentioned chapters, you may want to download the pdfs for the front and back materials. Indeed you might want to download the entire book contents.

NOTES: You need to attend classes in order to make notes; this is not a distance education course! If you are going to miss a class make sure you find a classmate that will loan you the notes.

WEBSITE: Go to <http://courselink.uoguelph.ca> and follow the links to STAT\*2050. We will have a conferencing site for discussion of topics related to STAT\*2050.

CLASSES: MWF 8:30–9:20 am in MacKinnon 117.

LABS: We will not have closed labs this semester. However, we have excellent TAs available to assist you on a drop-in basis at two locations. At least some TAs in the Mathematics and Statistics Learning Centre (MSLC) on the third floor of the library will be able to provide substantial assistance with general Stat\*2050 material. New this semester we will also have a drop-in lab available for those seeking some help with R for their statistics assignments in any 2000-level statistics course. TAs will be available starting Monday September 14, the lab is held in SSC 1305 for two hours each weekday, 12:30–2:30 p.m. with one exception: on September 24, the lab time will be 9:30–11:30 a.m. The R labs are held in SSC 1305.

ASSIGNMENTS: There will be a combination of ungraded and graded assignments this semester. Solutions or at least answers will be provided for at least some of the ungraded assignments. There will be three graded assignments, with due dates set out below. Each graded assignment will be posted at least one week prior to the due date.

EVALUATION: The three graded assignments will be equally weighted and contribute to 20% of your final grade.

The three tests are worth 15% each, and the final exam is worth 35% of your final grade.

If you cannot make a test and have a valid reason with proper documentation, the weight of the missed test will be transferred to the final exam.

KEY DATES: Graded Assignment #1 due Monday September 21  
Test 1: Tuesday September 29, 2015 at 5:30–6:45 pm (location T.B.A).  
Graded Assignment #2 due Monday October 19  
Test 2: Tuesday October 27, 2015 at 5:30–6:45 pm.  
Graded Assignment #3 due Monday November 9  
Test 3: Tuesday November 17, 2015 at 5:30–6:45 pm.  
Final exam: Monday December 7, 2015 at 7:00–9:00 pm; rooms T.B.A. by the Registrar on Web Advisor.

MORE ON  
CONTENT:

This course builds on concepts introduced in Stat\*2040 to give a student a broader and more thorough knowledge of key statistical methodologies (in particular regression analysis and experimental design) applicable in almost any area that generates data. A key objective is to make you more capable of dealing with quantitative data in whatever area you find of interest.

The methods in this course can be computationally intensive, making hand calculations impractical. R has been chosen as the course software in this course, but in the future you should be able to adapt readily to using various other statistical software packages.

CALCULATOR: A good calculator with regression and correlation functions is essential. Bring this to your test and exam. It's a very good idea to have a backup calculator available during tests that you know how to use.