Faculty of Health
Department of Psychology
HH/PSYC 2021 3.0 Section C
STATISTICAL METHODS I
Fall 2016
Thursday 8:30am – 11:30am

Instructor and T.A. Information

Instructor: Rob Cribbie
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T.A.	**Heather Davidson**	**Ashley Weinberg**
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Office Hours	Thursday 2:30 – 3:30 or by appointment	Tuesday 1:00 – 2:00 or by appointment

Class Location:

Curtis Lecture Hall (CLH) - E

Course Prerequisite(s) or corequisite: Course prerequisites are strictly enforced.
- HH/PSYC 1010 6.00 (Introduction to Psychology), with a minimum grade of C when used as a prerequisite.

Required Text

Navarro, D. (2015). Learning statistics with R: A tutorial for psychology students and other beginners (version 0.5). https://health.adelaide.edu.au/psychology/ccs/teaching/lsr/

* Note that the text can either be downloaded as a pdf or purchased on the text website

Course Description

This is the first course in statistics that most psychology (and other) majors take in university. This class will introduce you to the basic principles underlying statistical analysis in psychology and prepare you for future classes in statistics which will focus on more advanced techniques. More specifically, this course will introduce you to the type of variables utilized in psychology, statistical and graphical methods for summarizing variable information, two-variable correlation and simple regression, and comparing two independent or paired-sample means. Null hypothesis significance testing will be introduced, however the focus will be on estimating relationships among variables. Data analysis using statistical software will be carried out with *R*.

Learning Outcomes

Upon completion of this course, students should be able to:

1. Describe, explain, and calculate descriptive statistics.
2. Distinguish between descriptive and inferential statistics.
3. Recognize limits of descriptive statistics.

Organization of the Course

There are two components to this course:

1) Lectures will cover the computational and conceptual aspects of data analysis (i.e., understanding different research designs, how to analyze these designs, and how to interpret the results). Lectures may also cover material that is not presented in the textbook.

2) Labs will cover the practical aspects of data analysis using the *R* software package (i.e., conducting the same procedures/analyses from the lectures with statistical software, and learning how to interpret the output from these programs). The lab portion of the course will be in the last hour or so of the class. If you have a laptop that you can bring to class you might find that helpful, but it is not necessary. In other words, instruction will be provided on how to run analyses in *R* during the class, and if you have a laptop you can run the analyses during class; however, it is not necessary as you can run the example analyses and exercises on your own time using what you learned in the class.

Method of Evaluation

Final grades will be comprised of marks earned on:

1)   Class Tests (Test 1: 30%; Test 2: 20%; Test 3: 20%)

Each class test will include questions from the text and lecture notes, including both theory questions and questions which require you to interpret *R* input/output (you will not need to write out *R* code on tests).

Test 1 (October 13, 2016): Intro to Statistics, Research Design, Descriptive Statistics, Correlation, Graphing Data, Probability, Sampling

Test 2 (November 10, 2016): Hypothesis Testing, Categorical Data Analysis

Test 3 (December 1, 2016): Comparing Means

If you miss an exam, a make-up exam will only be scheduled if you have proper documentation. You must email the TA a copy of your documentation in order to schedule a make-up test. The format of the make-up test may be different from the original test.

2)   Assignments (2 X 15%)

There will be two assignments for the course that will require you to analyze data using R and write up the results of the studies. You will be given the assignments one class before they are due.

Assignment Due Dates:

Assignment #1: October 27, 2016
Assignment #2: November 24, 2016

You will be deducted 10% (of the 15% allotted to each assignment; i.e., 1.5% of your final grade) for each day (not including weekends) that your assignment is late.

Final Grading System

Precent	Letter Grade	Percent	Letter
90 – 100	A+	55 – 59	D+
80 – 89	A	50 – 54	D
75 – 79	B+	40 – 49	E
70 – 74	B	0 – 39	F
60 – 64	C		

Grading as per Senate Policy

The grading scheme for the course conforms to the 9-point grading system used in undergraduate programs at York (e.g., A+ = 9, A = 8, B+ - 7, C+ = 5, etc.). Assignments and tests* will bear either a letter grade designation or a corresponding number grade (e.g. A+ = 90 to 100, A = 80 to 90, B+ = 75 to 79, etc.)

(For a full description of York grading system see the York University Undergraduate Calendar - calendars.students.yorku.ca/2016-2017/academic-and-financial-information/academic-services/grades-and-grading-schemes

Late Work/Missed Tests or Exams

Students with a documented reason for missing a course test, such as illness, compassionate grounds, etc., which is confirmed by supporting documentation (Attending Physician Statement which can be found at: http://registrar.yorku.ca/pdf/attending-physicians-statement.pdf) may request accommodation from the Course Instructor. Further extensions or accommodation will require students to submit a formal petition to the Faculty.

Add/Drop Deadlines

For a list of all important dates please refer to: Important Dates

Important dates	Fall (F)	Year (Y)	Winter (W)
Last date to add a course **without** permission of instructor (also see Financial Deadlines)	Sept. 21	Sept. 21	Jan. 18
Last date to add a course **with permission** of instructor (also see Financial Deadlines)	Oct. 5	Oct. 19	Feb. 1
Last date to drop a course without receiving a grade (also see Financial Deadlines)	Nov. 11	Feb. 10	March 10
Course Withdrawal Period (withdraw from a course and receive a "W" on the transcript – see note below)	Nov. 12 - Dec. 5	Feb. 11 - Apr. 5	March 11 - Apr. 5

Academic Integrity for Students

York university takes academic integrity very seriously, please visit an overview of Academic Integrity at York University from the Office of the Vice-President Academic.

The following links will assist you in gaining a better understanding of academic integrity and point you to resources at York that can help you improve your writing and research skills:

- Information about the Senate Policy on Academic Honesty
- Online Tutorial on Academic Integrity
- Information for Students on Text-Matching Software: Turnitin.com
- Beware! Says who? A pamphlet on how to avoid plagiarism
- Resources for students to help improve their writing and research skill

Test Banks:

The use of test banks is not permitted in this course and may be considered a potential breach of academic honesty. This includes but is not limited too; buying or selling test banks.

Electronic Devices During a Test/Examination:

Electronic mobile devices of any kind are not allowed during a test or examination. Students are required to turn off and secure any electronic mobile device in their bag which is to be placed under the chair while a test/exam is in progress. Any student observed with an electronic devise during a test/exam may be reported to the Undergraduate Office for a potential breach of Academic Honesty.

Academic Accommodation for Students with Disabilities:

While all individuals are expected to satisfy the requirements of their program of study and to aspire to do so at a level of excellence, the university recognizes that persons with disabilities may require reasonable accommodation to enable them to do so. The York University Accessibility Hub is your online stop for accessibility on campus. The Accessibility Hub provides tools, assistance and resources. Policy Statement

Policy: York University shall make reasonable and appropriate accommodations and adaptations in order to promote the ability of students with disabilities to fulfill the academic requirements of their programs.

The nature and extent of accommodations shall be consistent with and supportive of the integrity of the curriculum and of the academic standards of programs or courses.
Provided that students have given sufficient notice about their accommodation needs, instructors shall take reasonable steps to accommodate these needs in a manner consistent with the guidelines established hereunder.

For Further Information please refer to: York university academic accommodation for students with disabilities policy

Course Materials Copyright Information:

These course materials are designed for use as part of the PSYC 2021 3.0C course at York University and are the property of the instructor unless otherwise stated. Third party copyrighted materials (such as book chapters, journal articles, music, videos, etc.) have either been licensed for use in this course or fall under an exception or limitation in Canadian Copyright law.

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Course Schedule:

Rough Schedule of Topics (i.e., modifications may need to be made based on the rate at which we are able to cover the material).

Day	Topic	Readings	Notes
Sep. 8	Introduction	LSR - Ch. 1	Welcome!
Sep. 15	Research Design/Intro R	LSR - Ch. 2/3	
Sep. 22	Descriptive Statistics/ Correlation	LSR - Ch. 4/5	
Sep. 29	Graphing Data	LSR – Ch. 6/7/8.1	
Oct. 6	Probability/Sampling	LSR – Ch. 9/10	
Oct. 13	**Test 1**	**LSR – Ch. 1-7,9-10**	Assignment 1 Handed Out
Oct. 20	Hypothesis Testing	LSR – Ch. 11	**Assignment 1 Due**
Oct. 27	Reading Week!!		
Nov. 3	Categorical Data Analysis	LSR – Ch. 12	
Nov. 10	**Test 2**	**LSR – Ch. 11-12**	
Nov. 17	Comparing Two Means	LSR – Ch. 13	Assignment 2 Handed Out
Nov. 24	Comparing Two or More Means	LSR – Ch. 14	**Assignment 2 Due**
Dec. 1	**Test 3**	**LSR – Ch. 13-14**	