YORK UNIVERSITY
FACULTY OF HEALTH
DEPARTMENT OF PSYCHOLOGY

Course: HH/PSYC 2021 3.0 Section B: Statistical Methods I

Course Webpage: https://moodle.yorku.ca/

Term: Summer Term, 2014

Prerequisite / Co-requisite: AK/AS/HH/SC/PSYC 1010 6.00 or AK/HH/PSYC 2410 6.00, GL/PSYC 2510 6.00,with a minimum grade of C when used as a prerequisite. Course credit exclusions: AK/AS/HH/SC/PSYC 2020 6.00, AK/PSYC 2510 3.00 (prior to Summer 2002), SC/BIOL 2060 3.00, SC/BIOL 3090 3.00 (prior to Summer 2000), AS/ECON 2500 3.00, AK/ECON 3470 3.00, AS/HH/SC/KINE 2050 3.00, AK/AS/SC/MATH 2500 3.00, AK/AS/SC/MATH 2560 3.00, AS/POLS 3300 6.00, AS/SOCI 3030 6.00, GL/PSYC 2530 3.00.

Course Instructor

Xin(Reno) Zheng, PhD
Phone: 289-407-6467 (emergency only)
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Office: Calumet 313 Office hour: 17:00 – 18:00 (Tuesday & Thursday) or by appointment

Teaching Assistants

Marwan Daar (marwan.daar@gmail.com) Students with last names beginning with: A – L
Office: Lassonde Building Room 002E Office hour: to be announced

Matthias Berkes (mberkes@yorku.ca) Students with last names beginning with: M - Z
Office: TEL 5030H Office hour: to be announced

Secretary

Agnes Levstik, 416-736-5125 (voicemail), BSB 281, alevstik@yorku.ca

Time and Location of Lectures: Tuesday and Thursday 14:00 - 17:00, at CLH A

Course Description

Statistics are concepts and procedures for collecting, describing, analyzing, and reporting quantitative data. The primary objective of this course is to provide students with some basic statistical notions and techniques necessary to conduct quantitative data analysis. Some of the topics covered in this course include descriptive statistics (e.g., frequency distributions, measures of central tendency and variability, normal distribution), probability, and hypothesis testing using t-tests, correlation and the Chi-square test. This course is extremely cumulative and regular lecture attendance is imperative.

Organization of the Course

The course has two components. For the lecture component (approximately 2 hours), we will discuss each of the topics listed in the course schedule. Then, following each lecture, there

will be a tutorial component (approximately 1 hour) held in the same classroom. The purpose of having tutorials is to provide you with more practice for solving statistical problems and to clarify any difficulty that you may have about a particular topic. For each lecture, I will also post some suggested problems on Moodle. Some of these problems will be taken up in the next tutorial led by a TA. To benefit from the tutorials, ***it is strongly recommended that you attempt these suggested questions prior to a tutorial.***

Course Text

Gravetter, F.J. & Wallnau, L. (2013). Statistics for the Behavioral Sciences, 9th Edition, Belmont, CA: Wadsworth.

Evaluation

In-class midterm test (40%): May 22
Final exam (60%): June 18 – 20, scheduled by the Registrar's Office

Further information on the midterm test and final exam

- Closed book
- Include calculations, short answer and multiple choice questions
- Bring a calculator (any calculator will do as long as it has a square root function)
- You can bring a 3 inch by 5 inch "cheat sheet" with handwritten notes
- The midterm test and the final exam will include all the material covered to date. However, tests will focus on the material covered since the last test, but may require the use of previously learned knowledge, because statistics knowledge is cumulative.

Grading: 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.)

Conversion Table

From Percentage	To Letter Grade
90-100	A+
80- 89	A
75- 79	B+
70- 74	B
65- 69	C+
60- 64	C
55- 59	D+
50- 54	D
(Marginally below 50%) Marginally failing	E
(Below 50%) Failing	F

Missed Tests: Make-up tests will be permitted ***only in cases of personal/medical emergencies*** (e.g., illness, compassionate grounds, etc) that need to be confirmed by supporting documentation (e.g., attending physician's statement, death certificate, automobile accident report). Attending Physician's Statement form can be found at http://psyc.info.yorku.ca/forms/. If you miss a test for personal/medical emergencies, please contact the course instructor ***within 24 hours*** to schedule a make-up test. Please note that there will be one set date for the make-up test, so please make every effort to make this

date. For the deferred final exam, they are scheduled on a single common date determined by the psychology department.

Last date to drop courses without receiving a grade: May 30, 2014

ADDITIONAL INFORMATION

All students are expected to familiarize themselves with the following information.

- Senate Policy on Academic Honesty: http://www.yorku.ca/secretariat/policies/document.php?document=69
- Academic Accommodation for students with disabilities http://www.yorku.ca/secretariat/policies/document.php?document=68
- Code of Student Rights and Responsibilities: http://www.yorku.ca/secretariat/policies/document.php?document=202
- Senate Policy on Research Involving Human Participants http://www.yorku.ca/secretariat/policies/document.php?document=94
- Senate Policy on Religious Observance https://w2prod.sis.yorku.ca/Apps/WebObjects/cdm.woa/wa/regobs

Course Schedule

Date	***Lecture Topic***
May 6	Introduction to the course Introduction to statistics (Chapter 1)
May 8	Frequency distributions (Chapter 2.1 – 2.5)
May 13	Central tendency (Chapter 3) Variability (Chapter 4)
May 15	z scores and standardized distributions (Chapter 5.1 – 5.5) Probability and the normal distribution (Chapter 6.1 – 6.3)
May 20	Probability and the distribution of sample means (Chapter 7.1 – 7.4)
May 22	***In-class midterm***
May 27	Introduction to hypothesis testing (Chapter 8)
May 29	Introduction to the t statistics (Chapter 9)
May 30	***Last date to drop courses without receiving a grade***
June 3	t test for two independent samples (Chapter 10) t test for two related samples (Chapter 11)
June 5	Correlation (Chapter 15.1 – 15.4)
June 10	Chi-square statistic (Chapter 17.1 – 17.5)
June 12	Review
June 18 – 20	***Final exam, scheduled by Registrar's Office***

April 25, 2014