

**YORK UNIVERSITY
FACULTY OF HEALTH
DEPARTMENT OF PSYCHOLOGY**

Course: *HH/SC PSYC 2021 3.0 A – Statistical Methods I*

Term: *Summer S1 2011*

Course Webpage: moodle.yorku.ca

Time and Location *Lectures Tuesday and Thursday 9 - 12 ACE 001*

Course Instructor

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Office hours: Tuesday and Thursday 12-1 or by appointment

Teaching Assistant

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Secretary can be found in 283 BS

Prerequisite / Co-requisite: *Prerequisite or co-requisite: AK/AS/HH/SC/PSYC 1010 6.00 (with a minimum grade of C when used as a prerequisite).*

Course credit exclusions: *AK/AS/HH/SC/PSYC 2020 6.0, AK/PSYC 2510 3.0, GL/PSYC 2530 3.0, BIOL 2060 3.0, AS/ECON 2500 3.0, AS/ECON 3470 3.0, AS/SC/KINE 2050 3.0, AS/SC/MATH 1131 3.0, AS/SC/AK/MATH 2500 3.0, AS/SC/AK/MATH 2560 3.0, AS/POLS 3300 6.0, AS/SOCI 3030 6.0*

Note: All of the course credit exclusions are also course substitutions (that is, they may be substituted for AK/AS/SC/PSYC 2021 3.0) except for AS/SC/MATH 2500 3.0, AS/POLS 3300 6.0 and AS/SOCI 3030 6.0 which are CCE only.

Course Learning Objectives

This course is designed to provide the student with the statistical skills necessary to describe and understand the data from psychological research. It is a course in the study of fundamental concepts and techniques of descriptive and inferential statistics. Topics covered will include: frequency distributions, measures of central tendency and variability, z-scores and probability, hypothesis tests using z scores and single sample t-tests; estimation, correlation and the Chi-Square non parametric test.

Organization of the Course -

The course involves formal lectures by the instructor on topics outlined below in the reading schedule. The required readings are central to the course. Class time will also include tutorial time that will serve to enrich, clarify, and illustrate assigned topics with the completion of weekly problems in class. This is important as they provide useful experience with statistical tasks. Suggested problems will be posted on moodle. It is advisable that students complete these problems and then difficulties can be discussed on the appropriate day

Course logistics

- *Lectures will begin at 9.*
- *Questions and Answers will be the last 45 minutes and will involve problem take-up time. Completion of weekly problems is important as they provide useful experience with tasks.*
- *Lecture information will be on Moodle. Make sure that you sign up for a Moodle account as soon as possible. <http://moodle.yorku.ca>*

Course Text / Readings

The following text is required for the course: Gravetter, F.J. & Wallnau, L. B. (2009) *Statistics for the Behavioral Sciences*. 8th Ed. Belmont CA: Thomson/Wadsworth.

Evaluation

The final grade for the course* will be based on the following items weighted as indicated:

Problem Sets	15%	in class as specified
Midterm	35%	in class May 19th
Final Examination:	50%	Scheduled in the exam period (June 15-17)

The Midterm will cover material from lectures and readings preceding the test date. The final examination will be cumulative, covering all course material.

*Final course grades may be adjusted to conform to Program or Faculty grades distribution profiles.

Missed Problem Sets: The percentage will be added to the next Midterm (or Final). For example if a Problem Set is late/not handed in before the Midterm date then the Midterm is re weighted.

Missed Tests: Students with a documented reason for missing a course test, such as illness, compassionate grounds, etc., which is confirmed by supporting documentation (Attending Physician's Statement) may request accommodation from the Course Instructor.

Accommodations may be permission to write a make-up test, re-weighting of course evaluations. Further extensions or accommodation will require students to submit a formal petition to the Faculty.

ADDITIONAL TEST INFORMATION

- For tests you must bring York sessional and photo ID, writing tools, and a **very basic** calculator (+, -, x, ÷, and $\sqrt{\quad}$ only).
- a 3 inch by 5 inch "cheat sheet" with handwritten notes (one side only for midterm, both sides allowed for final)
- Statistical tables will be provided as needed.

IMPORTANT COURSE INFORMATION FOR STUDENTS

All students are expected to familiarise themselves with the following information, available on the Senate Committee on Curriculum & Academic Standards webpage (see Reports, Initiatives, Documents) -

http://www.yorku.ca/secretariat/senate_cte_main_pages/ccas.htm

- York's Academic Honesty Policy and Procedures/Academic Integrity Website
- Ethics Review Process for research involving human participants
- Course requirement accommodation for students with disabilities, including physical, medical, systemic, learning and psychiatric disabilities
- Student Conduct Standards
- Religious Observance Accommodation

Comprehensive website on Academic Integrity for students can be found at

<http://www.yorku.ca/academicintegrity/students/index.htm>

Date	Topic	Readings
May 3	Basic concepts and Frequency Distribution	Ch 1, 2, Appendix A
May 5	Central Tendency	Ch 3
May 6	<i>Last date to enroll without instructor's permission</i>	
May 10	Variability	Ch 4
May 12	z-scores and Probability	Ch 5, 6
May 13	<i>Last date to enroll with instructor's permission</i>	
May 17	Probability and samples	Ch 6, 7
May 19	<i>Midterm</i>	35%
May 24	Introduction to hypothesis testing, power	Ch 8
May 26	Introduction to the t statistic	Ch 9
May 27	<i>Last date to drop without receiving a grade</i>	
May 31	concepts of t tests for two samples	Ch 10, 11
June 2	Estimation	Ch 12
June 7	Correlation	Ch 16
June 9	Chi-Square	Ch 18
June 15-17	<i>Final cumulative examination - 180 minutes worth 50%</i>	