

## **PSYCHOLOGY DEPARTMENT**

**Course:** AK/AS/SC PSYC 2022 3.0B – Statistical Methods II

**Course Webpage:** [moodle.yorku.ca](https://moodle.yorku.ca)

**Term:** Fall 2015

**Prerequisite:** One of AK/AS/HH/SC/PSYC 2021 3.00, AK/HH/PSYC 2510 3.00, AS/ECON 2500 3.00, AS/HH/SC/KINE 2050 3.00, AK/AS/SC/MATH 2560 3.00.

**Prerequisite or 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 3110 3.00 (prior to Summer 2002), AK/ECON 3480 3.00, AS/ECON 3500 3.00, AS/HH/SC/KINE 3150 3.00, AK/AS/SC/MATH 2570 3.00, AS/POLS 3300 6.00, AS/SOCI 3030 6.00.

Note: SC/BIOL 2060 3.00, SC/BIOL 3090 3.00, or AS/SC/MATH 2500 3.00 may not be substituted for AK/AS/SCPSYC 2022 3.00 for major or minor credit in psychology..

### **Course Instructor & TA's**

**Instructor:** Ed Haltrecht [haltrech@yorku.ca](mailto:haltrech@yorku.ca) Office hours, Phone number, Office location to be announced

Sheila Konanur, [skonanur@yorku.ca](mailto:skonanur@yorku.ca) Students with last names beginning with: A - L

Jeannine Holmes, [j9holmes@yorku.ca](mailto:j9holmes@yorku.ca) Students with last names beginning with: M - Z

Secretary: Terri Cawley 416-736-2100 ext. 66178 BSB 101

### **Time and Location**

Lectures Weds 2:30 – 5:30pm CLH A

TA's by appointment

### **Course Description**

This course builds on material presented in Statistical Methods I. Students will gain a greater understanding of the statistical procedures used by researchers in the behavioural sciences, in addition to the appropriate use and interpretation of statistical results. Topics that will be covered include: hypothesis tests using t-tests (for independent and related measures); Analysis of variance (ANOVA) for repeated measures, independent measures and two factors; multiple comparison procedures (post-hoc analysis), correlation and prediction, and non-parametric techniques. Students should be able to identify the correct statistical test to use. Mathematical competency gained from PSYC2021 is expected- see Appendix A in the text for a Basic Mathematics Review.

## **Organization of the Course**

Classes are lecture style working on the board with limited visual aids. The text receives very positive reviews by students and contains many practice problems. An accompanying text sponsored WEB site provides many more practice problems with automatic correction facilities. Copies of the lecture notes are not available. TA's are available by appointment.

DATE	TOPIC	TEXT
Sept 16	Intro to course; review of hypothesis testing, z-test, effect size, power, single sample t-test	8, 9
Sept 23	t-test for Two Independent Samples; t-test for Two Related Samples	10, 11
Sept 30	ANOVA - introduction and Single Factor Independent Measure Design	12
Oct 7	ANOVA - Repeated Measures	13
Oct 14	Correlation (Pearson and Spearman)	15
Oct 21	Test 1 (2½ hours) worth 50% of final course grade - covering Chapters 8-13,15 70% multiple choice (70 items); 30% problems where student must show work. (likely 6 items worth about 5 marks each) (No choices).	
Oct 28	ANOVA – Two-Factor (Independent Measures)	14
Nov 4	Regression – Equations and Analysis of Regression (16.3 and 16.4 not covered)	16.1, 16.2
Nov 11	Non-parametric tests (Mann-Whitney; Wilcoxon)	Appendix E1,2,3
Nov 18	Choosing the right statistics	19
Nov 25	Review of Chapters 14, 16, E1,2,3	14,16, App E1,2,3
Dec 2	Review of choosing the right statistics	19
Dec 9 - 23	Exam 2 (3 hours) Worth 50% of final course grade- covering all material covered since Test 1. Same format as Test 1. <b>Check for new class room - Exact date during the final examination period to be determined by Registrar's Office.</b>	

**Course Text** Gravetter, F.J. & Wallnau, L. (2013). *Statistics for the Behavioral Sciences*, 9th

Edition, Belmont, CA: Wadsworth.

**Aplia Course Key:** TBA

## **Course Enrolment**

Last date to enrol without permission of course instructor – Sept 24

Last date to enrol with permission of course instructor – Oct 8

Last date to drop courses without receiving a grade – Nov 9

**The course instructor and TA's do not get involved in enrolment issues- see department administration.**

## **Evaluation**

Two exams each worth 50%. See above schedule for dates.

### **ADDITIONAL TEST INFORMATION**

- For tests you must bring York sessional and photo ID.
- You may bring writing tools, and a basic calculator (incl. Square roots, Memory). Any calculator more sophisticated will be confiscated until the test is over. Your cell phone may NOT be used as a calculator.
- An equation sheet will be provided- also available on Moodle. No personal cheat sheet will be allowed.
- Statistical tables will be provided as needed.

## **Missed Classes and other matters**

We do not take attendance, nor do we cover material in writing or by e-mail for missed classes. Students may wish to tag a fellow student for notes in case of absence. Please contact your TA for appointments in case you are having any difficulties in understanding the material.

## **Grading and Missed Tests**

**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.). 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.)

**Missed Tests:** Students are expected to write each test on the dates specified. There will be **no make-up tests**, except under extraordinary documented circumstances. **If you miss a test for no documented reasons, you will receive a grade of zero.**

If you have a legitimate reason (e.g., death in the family, severe illness, etc.) for being excused from a test/exam, and have documentation to verify your absence (please see below), you may take a make-up test/exam in lieu of the missed test/exam. Please note that we are extremely strict about the conditions that will allow you to write a make-up examination – nonetheless, you should contact your TA regardless of your reason if you have or will miss an examination. You must contact your course TA, **at least one day in advance of the exam/test** and provide documentation in order to be permitted to take a make-up exam/test. In the case of an emergency, **contact your course TA, as soon as possible. In this email, please (a) outline the reason for your absence, and (b) confirm that you have medical or other relevant documentation to support this reason. Again, be sure to note your course section and your full name and student number in the subject header of your email.**

Please note that there will be *one* set date for the make-up test/exam. **If both exams are missed, students will have to retake the course unless they successfully petition.** Please also note that if you miss a test, regardless of your reason, you have waived the right to have a specific percentage of graded feedback available to you prior to the drop date.

Note also that deferred final exams are held on a single common date determined by the Department of Psychology. No individualized testing is available unless arranged formally through one of the offices at the University (e.g., Counselling and Disability Services (CDS)).

## **Documentation when missing an exam/test**

If you produce a valid medical document, signed by a physician, **stating that you were medically unable to take the exam/test for a specific time period**, you will be able to take a makeup exam/test. If you miss an exam/test for non-medical reasons, you still must produce supporting documentation (e.g., death certificate, obituary notice, automobile accident report, airline ticket for emergency travel, etc.). Missing an exam/test for a vacation, etc., is not an acceptable reason. If you are ill or facing extreme personal circumstances and are unable to get the required documentation, we highly recommend that you consider dropping the course.

Once you have contacted your TA, you will need to have completed the attending physician's statement found at <http://www.registrar.yorku.ca/exams/deferred/>. This should be brought to your TA's mailbox or faxed to the psychology department (with Attention *Ed Haltrecht*) at 416-736-5814. You will need to receive confirmation of the make-up examination date from your TA; you should be back in touch within a few days with your TA if you have not heard back. It is your responsibility to find out the information about when the make up test/exam is and ensure that you are set to write the make-up test/exam.

## **ADDITIONAL CONSIDERATIONS**

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>

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>

Religious Observance Accommodation:

<https://w2prod.sis.yorku.ca/Apps/WebObjects/cdm.woa/wa/regobs>