

## PSYCHOLOGY DEPARTMENT

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

**Course Webpage:** This course uses Moodle

**Term:** Summer Term 2016

**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 & TA's**

**Instructor:** Ed Haltrecht haltrech@yorku.ca Office hours, Phone number, Office location to be announced

**TA's:** Caroline Barnes p25ceb@yorku.ca for students with surnames A-K  
Sheila Konanur skonanur@yorku.ca for students with surnames L-Z

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

### **Time and Location**

Lectures Mon/Weds 7-10pm  
TA's By appointment

### **Course Description**

This is a course on the fundamental concepts and application of descriptive statistics. It will provide an introduction to probability and inferential statistics, including hypothesis testing with the normal- and t-distributions. The following outline details each of the elements that are covered in the course.

### **Organization of the Course**

Classes are lecture style working on the board with limited visual aids. TA's are available by appointment. 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.

While the content, and order of presentation is fixed, exact coverage on a class by class basis may be adjusted based upon progress and student feedback- check regularly with course instructor.

|        |  |
|--------|--|
| May 9  | Introduction to course<br>Broad overview - Descriptive Statistics- mode, median, mean  |
| May 11 | Broad overview continued – range, variance, standard deviation, rules of thumb, percentiles  |
| May 16 | **Section numbers refer to text - 10 <sup>th</sup> edition of textbook**<br>1.1 Populations and samples<br>1.3 Variable and measurement, discrete and continuous variables<br>1.4 Statistical notation<br>2.1 – 2.3 Frequency distributions – tables<br>2.4 Percentiles, percentile ranks<br>3.1 – 3.6 Central tendency<br>4.1 Range<br>4.2 – 4.6 Standard deviation, variance |
| May 18 | 5.1 – 5.6 z-scores<br>6.1 – 6.3 Probability  |
| May 25 | 7.1 – 7.4 The distribution of sample means   |

|                   |   |   |
|-------------------|---|---|
| <b>May 30</b>     | <b>Exam 1 (2 ¾ hours) worth 50% of final course grade – covering Chapters 1- 7</b>  |   |
|                   | <b>75% multiple choice (75 items)</b>   |   |
|                   | <b>25% show your work problems (likely 5 items, 5 marks each – no choices)</b>  |   |
| June 1            | 8.1 – 8.6   | Hypothesis testing                            |
| June 6            | 9.1 – 9.4   | t-statistic                                   |
|                   | 10.1 – 10.5   | Hypothesis tests with two independent samples |
| June 8            | 11.1 – 11.5   | Hypothesis tests with related samples         |
|                   |   | Estimation                                    |
| June 13           | 15.1 – 15.4   | Correlation                                   |
| June 15           | 17.1 – 17.4   | Chi-Square statistic                          |
| June 20           | Exam Review   |   |
| <b>June 22-24</b> | <b>Exam 2 (3 hours) worth 50% of final course grade – covering all material since Exam 1.</b>                               |   |
|                   | <b>Same format as Exam 1</b>  |   |
|                   | Check for new class room for exam location. Exact date during the final exam period to be determined by Registrar's Office. |   |

### **Four Course Text Options (PICK ONLY 1 OPTION).**

- Gravetter, F.J. & Wallnau, L. (2016). *Statistics for the Behavioral Sciences*, 10th Edition + Mindtap Belmont, CA: Wadsworth. *Printed Access Code – 1305918541*
- Loose-leaf *Statistics for the Behavioral Sciences*, 10<sup>th</sup> Edition + *MindTap Printed Access Code – 1337128996*
- MindTap Instant Access Code - 1305647319* (the bookstore can generate and sell a code on the spot for students that only want digital access – MindTap houses an eBook and all study tools)
- Use the 8<sup>th</sup> or 9<sup>th</sup> edition. If you plan on taking Psyc 2022 (the next stats course) this summer or next fall/winter, you might want to see what edition of the text they are planning on using. Any of the 8, 9, or 10<sup>th</sup> edition will work fine. We will have answers to all of the end of chapter questions available for the 9<sup>th</sup> and 10<sup>th</sup> editions. The text only gives the answers for half of the questions.

### **Course Enrolment**

Last date to enrol without permission of course instructor – May 13

Last date to enrol with permission of course instructor – May 20

Last date to drop courses without receiving a grade – June 3

**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.

### **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.

All students are expected to familiarize themselves with the following information, available on the Senate Committee on Academic Standards, Curriculum & Pedagogy webpage (see Reports, Initiatives, Documents) - <http://www.yorku.ca/secretariat/senate/committees/ascp/index-ascp.html>

- Senate Policy on Academic Honesty and the 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