HH/SC PSYC 3031 3.0 M: Intermediate Statistics Laboratory (WINTER 2014) YORK UNIVERSITY

DEPARTMENT OF PSYCHOLOGY

FRIDAY 8:30-11:30, COMPUTER LAB: HNES B02

<u>Course Instructor:</u> <u>Teaching assistant</u>

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Note: Please send emails from a York email account and use PSYC3031 in the subject line; otherwise, emails will be will be deleted unread.

SECRETARY: Agnes Levstik, 281 BSB

Telephone: (416) 736-5125

REQUIRED TEXT: Field, A. (2013). *Discovering statistics using IBM SPSS Statistics*. 4th Edition.

Sage: Thousand Oaks, CA

Course pre- or co-requisite: HH/AK/AS/SC PSYC 1010 6.0 (with a minimum of C) or AK/PSYC 2410 6.0 (with a minimum of C) and HH/AK/AS/SC PSYC 2020 6.0 or substitute

COURSE DESCRIPTION AND GOALS

This course is designed to provide students with a greater understanding of the mechanics and underlying rationale of the statistical procedures used by researchers in the behavioral sciences. Students will also acquire a familiarity with appropriate uses and interpretations of statistical results. In order to facilitate this goal, students will learn a statistical software package (e.g., SPSS). Students will learn all stages involved in analyzing and reporting data, ranging from preparing the data for analysis, checking the underlying statistical assumptions of the statistical test, conducting the statistical analysis, to writing up the results. Topics to be covered include correlation and regression, one-way and two-way analysis of variance (ANOVA), multiple comparison procedures (post-hoc analysis), repeated measures ANOVA,

COURSE LAYOUT

This course will consist of lectures as well as a lab component. Lectures will be approximately 2 hours in length, and will combine discussions and analyses of conceptual material with concrete examples. The lab component is aimed at providing students with practical, hands-on experience conducting computer statistical analyses using the Statistical Package for the Social Sciences (SPSS). The capacity to use a statistical analysis software package to analyze data and to interpret output is a critical skill to be acquired in this course.

COURSE REQUIREMENTS

Grades will be determined by your performance on exams and assignments. There will be 2 exams, weighted equally (35% each of your total grade—70% overall); and assignments will be worth 30% (15% each).

Assignments will be distributed in class and will be due at 8:30apm sharp on the stated due date. A student who will be absent from class on the day an assignment is due must arrange to turn in his/her assignment in 101 BSB prior to the class (please make sure to have the assignment time- and date- stamped by the receptionist). Electronic submission of assignments will NOT be accepted under any circumstances. Students are responsible for keeping a copy (electronic or photocopy) of all the submitted work.

Late Penalty

If your assignment is late you will lose 5% of the mark/day for that assignment for the first 24 hours. For every day after that, you lose 20% of the total mark (weekends excluded). Assignments will not be considered for marking after 1 week of the official assignment due date.

SOFTWARE & COMPUTER ACCOUNTS: Access to SPSS is required for the completion of the assignments. There are three ways to access the software

- 1. You may use the computer lab associated with this course when the lab is free after creating an File Access Service (FAS) account go to Computing for Students at http://www.yorku.ca/computing/students/accounts/index.html and follow the links to "Manage my services".
- 2. To access the computer lab remotely using the internet you must activate a WebFAS account. You can activate this service once you have completed step 1. Information about setting up a WEB ACADLABS account can be found at http://computing.yorku.ca/students/computer-labs/connecting-from-home-webfas/
- **3.** Finally to use SPSS at home without the internet, you may purchase a student copy of SPSS from University Information Technology. See http://computing.yorku.ca/students/software/discounted-software/ and follow the links for "Student SPSS" found under group license.

POLICY ON MISSED TESTS AND EXAMS

Students are expected to write each test on the dates specified. Make-up exams will be granted ONLY under EXCEPTIONAL DOCUMENTED CIRCUMSTANCES, such as **serious** illness, or death in the immediate family. If you miss a mandatory piece of course work for no documented reasons, you will receive a grade of zero. Please note that I am extremely strict about the conditions that will allow you to write a make-up examination.

It is the student's responsibility to contact the teaching assistant (or instructor) in person, by telephone, or by email, within 48 hours of the missed exam. 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 - - so please make every effort to make

this date. A conflict in another course during the time of the make-up is not an acceptable reason for missing the make-up (unless there is an examination in the other course at that time). No individualized testing is available unless arranged formally through one of the offices at the University (e.g., Counselling and Disability Services).

The TA will arrange a date and time for the make-up exam. 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.

Documentation when missing an exam/test

A. Tests or examinations missed on the grounds of *medical circumstances* must be supported by an <u>Attending Physician's Statement</u> from the Office of the Registrar. (NO other forms will be accepted). The Attending Physician's Statement can be downloaded from:

http://www.registrar.yorku.ca/pdf/attend_physician_statement.pdf

NOTE: the physician's office may be contacted to verify that the forms were completed by the physician.

B. Tests or examinations missed on grounds of *non-medical circumstances* must be supported by appropriate documentation, i.e., death certificates, obituary notice, automobile accident reports, airline/train/bus tickets/receipt for emergency travel, etc. Airline/train/bus ticket/receipts for emergency travel must indicate destination, departure, and return dates.

Missing an exam for a vacation etc. is not an acceptable reason for a make-up exam. Having to work at the time of a test is not considered a valid excuse for missing the test.

If you are ill or facing extreme personal circumstances and are unable to get the required documentation, I highly recommend that you consider dropping the course.

OTHER INFORMATION:

Regular class attendance is strongly recommended. Reading the textbook and listening in class are essential for successful performance in this course. If you miss a lecture, it is your own responsibility to find out what you have missed (e.g. by asking a fellow classmate for their notes); the **instructor and teaching assistant do not provide lecture notes for students**.

Students are responsible for understanding the nature and avoiding the occurrence of plagiarism and other academic offences. Students are encouraged to read carefully the Faculty of Arts Policy on Academic Dishonesty

(http://www.yorku.ca/health/psyc/policies/academic_honesty.htm)

TENTATIVE COURSE SCHEDULE

| DATE | LECTURE TOPIC | CHAPTER |
|---------------------------|--|---------|
| Jan. 10 | Introduction | |
| Jan. 17 | Review from Intro to Statistics: Sampling distributions, Hypothesis testing, Statistical Models, Power | 1 & 2 |
| Jan. 24 | Introduction to SPSS | 3 |
| Jan. 31 | Examining Data Visually | 4 |
| Feb. 7 | Underlying Assumptions, Data Cleaning | 5 |
| Feb. 14 Assignment 1 due | Tutorial – Exam Review & Catch-Up (if necessary) | |
| Feb. 21 | READING WEEK – NO CLASS | |
| Feb. 28 | Mid-term Test | |
| March 7 *** | Correlational Data | 7 |
| March 14 | Regression, evaluating assumptions | 7 |
| March 21 Assignment 2 due | Comparing Two Means | 9 |
| March 28 | Comparing Several Means: One-way Analysis of Variance (ANOVA), Post hoc tests | 11 |
| April 4 | Repeated Measures Designs | 14 |
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Any Changes to the Syllabus will be announced in class. Other Important Dates: March 7 - Last Date to Drop a Course without receiving a final grade.