STATISTICAL METHODS II PSYC 2022 3.0 w (WINTER 2013) YORK UNIVERSITY DEPARTMENT OF PSYCHOLOGY WEDNESDAYS 4-7, VH C

COURSE INSTRUCTOR:

Lisa Fiksenbaum Office: 403 BSB Telephone: (416) 736-5125 E-Mail: <u>lisafix@yorku.ca</u> Office Hour: By Appointment TEACHING ASSISTANT

Students with Surnames A-K Timothy Leonard Office: 374 BSB Telephone: (416) 736-5125 Email: tsk@yorku.ca Office Hour: Wednesday 2:30-3:30pm

Students with Surnames L-Z

James Roseborough Office: 329 BSB Office Hours: Wednesday 3:00-4:00. Telephone: (416) 736-5125 Email: jamesroseborough55@hotmail.com

Note: Please send emails from a York email account and use PSYC2022 in the subject line; otherwise, emails will be deleted unread.

<u>SECRETARY</u>: Agnes Levstik, 285 BSB Telephone: (416) 736-5125 E-Mail: <u>alevstik@yorku.ca</u>

REQUIRED TEXT: Gravetter, F.J. and Wallnau, L.B. (2013). Statistics for the Behavioral Sciences, 9th ed. St. Paul: Thompson.

Prerequisite(s): PSYC 2021 3.0 or equivalent

COURSE DESCRIPTION AND GOALS

This course will build on material presented in Statistical Methods I. Students will gain a greater understanding of the mechanics and underlying rationale of the statistical procedures used by researchers in the behavioral sciences, in addition to the appropriate use and interpretation of statistical results. Topics that will be covered include: one-way and two-way analysis of variance (ANOVA), multiple comparison procedures (post-hoc analysis), repeated measures ANOVA, correlation and prediction, and non-parametric techniques.

COURSE REQUIREMENTS

Grades will be determined by your performance on exams and assignments. There will be 2 exams, weighted equally (40% each of your total grade—80% overall); and assignments will be worth 20% (10% each).

The first exam (Feb. 13) will cover only the information for that particular unit. The final (TBA) will be cumulative. It will include new material covered after first Exam, and concepts from the rest of the course. Exams might include a combination of definitions, multiple choice, true/false,

matching, basic calculations, interpretation of data sets, and/or short essay questions. In addition to your calculator, writing tools, sessional card, and photo ID, you will be allowed to bring <u>one</u> 3 inch x 5 inch index card on which you may put anything you consider useful (e.g., formulas, definitions, etc.). For the first exam, you will be allowed to use one side of the index card and for the final exam you will be allowed to use both sides of the card. It is important that you show up for all exams on time, as no late students will be allowed to write the exam following any student's departure from the exam room.

Assignments will be distributed in class (they will not be posted) and will be due at **4pm 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 to Agnes 285 BSB prior to the class (please make sure to have the assignment time- and date- stamped). Assignments not submitted on time will NOT be accepted, and you will receive a grade of zero on that assignment. Electronic submission of assignments will NOT be accepted under any circumstances. You may feel free to discuss the assignments, do not simply report the final answer for a problem. Show the computations that produced that answer. If it turns out that your final answer is incorrect, it may still be possible for you to earn partial credit for the problem if some parts of it are done correctly.

Rounding: Do not round numbers you are computing until the final answer. Rounding numbers at each step in calculating results in answers that may be significantly different than the keyed answers for both exams and homework. Therefore, **round only your final answer (to two decimal places) only after all calculations have been performed.**

POLICY ON MISSED TESTS AND EXAMS

Make-up exams will be granted ONLY under EXCEPTIONAL circumstances, such as **serious** illness, or death in the immediate family. It is the student's responsibility to contact the instructor or TA in person, by telephone, or by email, <u>within 48 hours</u> of the missed exam. In the case of a missed exam that is appropriately documented (see below), the student must be prepared to write the make-up within 1 week following the missed exam. The format of the make up exam is at the discretion of the instructor. Failure to provide appropriate documentation will result in a grade of <u>F</u> on the missed exam. 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). NOTE: Only extremely unusual circumstances would warrant a second chance at a make-up.

Appropriate documentation verifying the circumstances for a missed exam must be provided to the teaching assistant prior to the make up exam.

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.

The Attending Physician's Statement must include: (i) the full name, mailing address, and telephone number of the Physician, (ii) state the nature of the illness and its duration and (iii) an indication of whether the illness and/or medication prescribed would have **SERIOUSLY** affected the student's ability to study and perform over the period in question.

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.

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).

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)

| DATE | LECTURE TOPIC | CHAPTER |
|------------------------|------------------------------------|---------------------------|
| Jan 9 | Introduction | |
| | | |
| Jan 16 | T-Tests for Independent | Ch. 10 |
| | Samples | |
| Jan. 23 | T-Tests for Related Samples | Ch. 11 |
| Jan 30 | | Ch 12 |
| Jan 50 | ANOVA | Cii. 12 |
| Feb. 6 | Repeated Measures ANOVA | Ch. 13 |
| Assignment #1 DUE | 1 | |
| Feb. 13 | EXAM | Ch. 10-13 |
| | | |
| Feb. 20 | Reading Week | |
| F.1. 05 | | |
| Feb. 27 | Two-Factor ANOVA | Ch. 14 |
| March 6 | Correlation | Ch. 15 (omit 15.5) |
| | Conclation | Ch. 15 (0hht 15.5) |
| March 13 | Regression | Ch. 16 (16.1 & 16.2 only) |
| | C | |
| March 20 | Categorical Data and χ^2 Test | Ch. 17 (omit 17.6) |
| Assignment #2 DUE | | |
| March 27 | Non-parametric Approaches to | Ch. 15.5, Appendix E |
| | Data | |
| April 3 | Review class | |
| | | |
| April 10-26 Final Exam | Scheduled by the Office of | |
| (cumulative) | the Registrar | |

TENTATIVE COURSE SCHEDULE

Any Changes to the Syllabus will be announced in class. Students are responsible for obtaining information on any changes.

Other Important Dates: March 15 - Last Date to Drop a Course without receiving a final grade.