PSYC08 - Advanced Data Analysis in Psychology

Winter 2017

Instructor: Dr. Douglas A. Bors

Office Hours: Wednesdays 10:00 to 12:30 and by appointment**.**

****There are NO Tutorials during the first week of the course!**

Room: AA112

Textbook: Statistical Methods for Psychology by David Howell

Grading: Your final grade in the course will be based on quizzes and assignments (20%), a mid-term examination (40%), and a final examination (40%). There will be at least six quizzes or assignments during the term. Your best four performances will used for the quiz/assignment portion of you grade. The quizzes will be administered in tutorial without warning, so be prepared! The date for the mid-term will be posted and announced early in the term. The date for the final examination will be published by the registrar's office sometime during the term.

Make-Ups: Make-up quizzes are not given. Make-up mid-terms are never given without a legitimate reason. The student is required to present a medical certificate, if a test is missed due to illness. The certificate must state that, in the physician's opinion, you are unable to write the test. Do not phone or e-mail your instructor or TA concerning missed exams. Certificates are to be given to the invigilator at the time for the make. Make-up mid-terms will be given at 5:00 pm on the Tuesday of the week following the original date of the exam. On the date of the make-up, the location of the exam will be posted on this page and on the office door of Dr. Bors. If the make-up is also missed for legitimate reasons, a grade will be assigned on the basis of the student's relative performance on the final examination and quizzes. Make-ups for final examinations are entirely at the discretion of the registrar's office.

This link provides important information regarding academic integrity:

http://www.utsc.utoronto.ca/aacc/sites/utsc.utoronto.ca.aacc/files/tipsheets/Academic_Advising_Tipsheets/AIM%20-%20Tipsheet%20oct%202015.pdf

Missed Term Work due to Medical Illness or Emergency: *All students citing a documented reason for missed term work must bring their documentation to Course Coordinator, Ainsley Lawson as soon as possible upon return to campus (and within 3 business days from the date of term test or assignment due date). All documentation must be accompanied by the department* ***Request***

for Missed Term Work form*. In the case of missed term work due to illness,* ***only an original copy of the official UTSC Verification of Illness Form will be accepted.*** *Forms are to be* ***completed in full****, clearly indicating the start date, anticipated end date, and severity of illness. The physician's registration number and business stamp are required as is the course information. In the case of emergency, a record of visitation to a hospital emergency room or copy of a death certificate may be considered. Forms should be dropped off in SW427C between 9 AM - 4:30 PM, Monday through Friday. Upon receipt of the documentation, both you and your instructor will receive email notification within 2 business days, containing a stamped departmental document detailing the affected date(s), along with a copy of the original document(s). The stamped departmental form should be brought to the make-up exam or submitted with late assignments. The course instructor reserves the right to decide what accommodations (if any) will be made for the missed work.*

References from Academic Handbook:

Section V.1,

"Students who miss a term test for an acceptable reason should be offered a make - up test. For some courses it may be appropriate to allocate the value of the missed test to another test, or other piece(s) of term work, however, for A-level courses at UTSC, it is not permissible to transfer the value of a missed midterm to the final exam. Additionally, the practice of transferring the value of a missed midterm to the final exam in upper-level courses is discouraged."

Overview: This course is designed to provide the student with the advanced principles of data analysis for both parametric and non-parametric analyses. In terms of parametric statistics, our treatment will focus on Analysis of Variance (ANOVA). In addition to the material covered in PSYB07, a working knowledge of elementary algebra is assumed.

Tentative Course Outline:

Week	Topic	Chapters

1	Review of Descriptive Statistics and Graphs	1 through 7
2	Review of PSYB07 tests and an Introduction to ANOVA (testing homogeneity of variance)	11
3	One-Way between-subject designs	11
4	Power & Magnitude of Experimental Effect	8 & 11
5	Introduction to Multiple Comparisons	12
6	Introduction to Repeated Measures Designs	14
7	Multiple comparisons continued	14
8	Factorial Designs (between-subjects only)	13
9	Factorial Designs (Mixed designs)	13
10	Inroduction to Multiple Regression	15
11	Non-Parametric Approaches	18
12	Integration	All Covered