TEXTBOOK:


EVALUATION PROCEDURE:

Grades will be based on the outcome of two tests, worth 50% each. All tests consist of 50% multiple-choice questions and 50% problem questions. The midterm exam will take place on October 18; the date for the final exam will be scheduled by the Registrar’s Office during the final exam period, December 10 - 23. To help students monitor their progress, there will be weekly assignments. Detailed feedback on these assignments will be provided on a weekly basis. Assignments are strictly for practice and do not count towards the course grade.

PROCEDURES FOR MISSED MIDTERM EXAM:

Students who fail to write the exam at the scheduled time need to contact the instructor by e-mail within 48 hours. If they can document a valid reason for their absence they will be allowed to write a make-up exam at a time specified by the instructor. The date of the make-up will be the same for all students who missed the test. There will be no individual accommodation. For information on documentation consult the Department of Psychology website

GOAL OF THE COURSE:

The goal of this course is statistical literacy and competence in choosing and carrying out statistical analyses appropriate to different research questions. Students will gain a better understanding of the experimental findings to which they are exposed in other courses, and they will be able to interpret and critically evaluate research findings reported in the media. The course will also provide preparation for students who will continue with PSYC 2022, 3030, 4000 or 4170. It is advantageous for students to take this course as early as possible in their course of study.
PARTICULARITY OF A STATISTICS COURSE:

Statistics is an important course. Succeeding in it will open doors for you in your course of study, while failing to succeed will keep these doors shut. Understanding statistics will greatly help you to understand other subject matters, which is the reason why statistics is a mandatory course for psychology majors. Mastering Psych 2021 does not require a special aptitude for mathematics; what it does require is a fair amount of regular work. According to a questionnaire, successful students spend an average of five hours per week studying statistics in addition to class time. There is, however, a large range in the time required by different students.

Statistics differs from many other courses in that one thing builds on another. Students have to retain it all. The only way this can be achieved is by mastering each part to the point where it becomes automatic. Using statistics then becomes similar to speaking a language fluently without having to explicitly recall each rule. Lack of investing enough regular time and attention is the one prime reason for failure in this course.

Some students spend a lot of time wondering whether or not they will succeed. Henry Ford had the answer to their question when he said: “Whether you think you can or think you can’t, - either way you are right.” People tend to live up (or down) to their own expectation. However, positive expectations need to be combined with concrete strategies to move beyond wishful thinking.

STRATEGIES TO SUCCEED IN THIS COURSE:

Maximum efficiency can be achieved by:
(a) good resource management, i.e. keeping oneself in good operating conditions (i.e. staying healthy and functional) and setting aside weekly time periods for regular homework,
(b) using several smaller time periods rather than one big block,
(c) making friends with classmates and working with others (but NOT during exams),
(d) making use of the models provided by the assignments, and
(e) asking for help when encountering difficulties, i.e. essentially staying on top rather than letting things slide and hoping to catch up at some future point in time.
(f) understanding the material AND making its use automatic through practice

CORRESPONDENCE:

Please be aware that this is not a correspondence course. Attending lectures cannot be substituted by requesting information and explanation from the instructor or the TA via e-mail. Identify yourself clearly (first and last name, course number and section) when you need to communicate by e-mail or phone. State “2021” in the subject line of any e-mail. Please read your course outline carefully. It contains all the administrative information students tend to ask about.

IF YOU FEEL THAT YOU NEED EXTRA HELP:

(1) Consider whether you have made an honest effort to cope on your own. Some students simply assume that they cannot handle the material. Hiring a tutor fulfills their need to depend on somebody other than themselves. (2) Make use of the resources available. The instructor and the TAs have weekly office hours and are ready to help you out. (3) Form a study group. (4) If you really find that the available resources do not suffice, look for peer tutoring with UPSA at York University.
# COURSE SCHEDULE

**Sept. 13**  
Introduction to the course  
Introduction to statistics (Chapter 1)

**Sept. 20**  
Making sense out of data – graphic representation (Chapter 2)  
Measures of central tendencies and measures of dispersion (Chapter 3)

**Sept. 27**  
Introduction to standard scores (Chapter 3 cont’d)  
Standard scores and the normal curve (Chapter 4)

**Oct. 4**  
Pearson correlation and regression (Chapter 5)

**Oct. 11**  
Review Chapters 1 - 5

**Oct. 18**  
**MIDTERM EXAM (50%)** covering chapters 1 – 5

**Oct. 25**  
Probability (Chapter 6)  
Introduction to hypothesis testing (Chapter 7)

**Nov. 1**  
**FALL READING WEEK** aka co-curricular week  
NO CLASSES

**Nov. 8**  
Hypothesis testing: inferences about a single mean (Chapter 8)  
Elements of research design; the t-test for correlated samples (Chapter 9)

**Nov. 8**  
Last day to drop course without receiving a grade

**Nov. 15**  
Elements of research design  
t-test for correlated samples (Chapter 9)  
t-test for independent samples (Chapter 10)

**Nov. 22**  
t-test for independent samples (Chapter 10 cont’d)  
review of z- and t-tests  
The power of statistical tests and the problem of hypothesis testing (Chapter 11)  
The confounding effect of N in the outcome of hypothesis testing

**Nov. 29**  
The Chi square test, general principle and goodness of fit test  
Chi square test for homogeneity, i.e. correlation (Chapter 15)

**Dec. 6**  
Review chapters 6 – 11 and 15

**Final Exam Period**  
**FINAL EXAM (30%)** covering chapters 6 – 11 and 15.  
(Dec. 10 – 23)