

YORK UNIVERSITY
Faculty of Health, Department of Psychology

Course: HH/SC PSYC 2020 6.0 E Statistical Methods I & II
Time: Lecture Friday 11:30 - 14:30

Term: Fall 2011 Winter 2012
Location: ACE003

Course Instructor: Heather Jenkin, Ph. D.

Office: 254 BS

Tel: 416 736 2100 x22542

Email etiquette: Always put PSY1010 H in Subject header, include your full name and student number in the body of the message.

Office Hours: M 14:30 -13:30 and by appointment

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Course Description: This course is designed to provide the student with the statistical skills necessary to analyze and understand the data from psychological research. Topics covered will include basic concepts of measurement, measures of central tendency, variability and relationship. As well, selected inferential statistics will be covered (for example t-tests, ANOVAs, correlation and regression), there will also be non-parametric test such as χ^2 and tests of ordinal data. Students should have a reasonably good working knowledge of high school mathematics.

Course Learning Objectives: The purpose of this course is to introduce students to the field of psychology statistical analysis. In addition it is hoped that students will develop appropriate study habits and critical thinking skills.

Pre-requisite or co-requisite: PSYC 1010 6.0 (with a minimum grade of C, when used as a pre-requisite)

Course Credit Exclusion: For exclusions see page 34 of the Department of Psychology handbook 2011-12.

Text: Gravetter, F.J. & Wallnau, L. B. (2009) Statistics for the Behavioral Sciences. 8th Ed. Belmont CA: Thomson/Wadsworth

OPTIONAL: APLIA Software (this is a trial additional statistical support software that may help students)

Website: Make sure that you sign up for a moodle account as soon as possible. Online go to moodle.yorku.ca and follow the instructions, you need to logon using your *yorku id* and *password*, once registered with moodle you can then find all moodle websites associated with the courses you are registered in.

Evaluation: There are three parts to how your grade is generated:

- (1) Four term tests non-cumulative term tests (multiple choice questions, short answers and calculations). These tests sum to 60% of your grade.
- (2) There are 8 assignments that are done over the year worth 12% in total. We will count your best 6 of the 8, the assignments and due dates will be posted on moodle. Assignments are due in class at 11:30 on the assigned date. No late assignments will be accepted, no electronic submissions are allowed. Early submissions will be accepted if date and time stamped.
- (3) The last 28% is a cumulative final (multiple choice questions, short answers and calculations).

Missed Test: If you miss a term test you will score a zero.

Documentation for a missed test due to illness: York University Attending Physician's Statement form must be completed by your healthcare provider (available on the course moodle site). This is the ONLY form of medical documentation acceptable in this course. A "doctor's note" is NOT sufficient.

There are **no make-ups** for missed tests. With appropriate documentation you can request a re-weighting onto the cumulative final. If more than one term test is missed then be aware that you may not have a true understanding of your performance in the course before the drop deadline.

IMPORTANT COURSE INFORMATION FOR STUDENTS

All students are expected to familiarize themselves with the following information, available on the Senate Committee on Curriculum & Academic Standards webpage (see Policies, Procedures and Regulations; Major Documents and Publications) - http://www.yorku.ca/secretariat/senate_cte_main_pages/ccas.htm

- 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

Information on cheating and Plagiarism is available

- At a comprehensive website on Academic Integrity for students
<http://www.yorku.ca/academicintegrity/students/index.htm>
- In the Psychology Supplemental Calendar
- At the Senate Policy on Academic Honesty website
<http://www.yorku.ca/secretariat/policies/document.php?document=69>

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| Part 1 | Introduction and Mathematical Review; Frequency distribution and Graphing; Central Tendency, Variability; z-scores |
| Readings | Chapters 1, 2, 3, 4, 5 (and Appendix A) |
| TEST 1 | October 21st 2011 worth 15% |
| Part 2 | Probability; Sampling and Distributions; Hypothesis Testing and Power; Single sample t-tests; Independent measures t-tests |
| Readings | Chapters 6, 7, 8, 9 and 10 |
| TEST 2 | TBA in the Fall exam period worth 15% |
| Part 3 | Dependent measures t-tests; ANOVA; Repeated ANOVA and 2-factor ANOVA |
| Readings | Chapters 11, 12, 13, 14 and 15 |
| TEST 3 | February 17th 2012 worth 15% |
| Part 4 | Correlation; Regression Analysis; Chi-Square tests, Ordinal tests |
| Readings | 16, 17, 18 and 20 |
| TEST 4 | March 30th 2012 worth 15% |
| FINAL | Scheduled in the Winter Exam period worth 28% |

Important dates

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| September 7th | First day of classes |
| September 20th | Last date to add a course without permission of instructor |
| October 14th | No class Fall Co-curricular Week |
| October 25th | Last date to add a course with permission of instructor |
| February 10th | Last date to drop courses without receiving a grade |
| February 24th | No class Winter Reading Week |
| April 2nd | Last day of classes |