YORK UNIVERSITY
Faculty of Health, Department of Psychology

Course: HH/SC PSYC 2020 6.0 C Statistical Methods I & II   **Term:** Fall 2015 Winter 2016
Time: Lecture Monday
Section C 11:30 - 14:30   **Location:** FC106
Section B 14:30 - 17:30   **Location:** VH1152A

Course Instructor: Heather Jenkin, Ph. D.
Office: 254 BS   **Office Hours:** W *12:30 - 12:30 and by appointment*
Tel: 416 736 2100 x22542   **Email contact:** hjenkin@yorku.ca
Email etiquette: Always put PSYC2020 and the section in Subject header, include your full name and student number in the body of the message.

Teaching Assistant: Information will be on moodle

Secretary: Ms. Barbara Thurston   **Email contact:** bthurst@yorku.ca
Office: 283 BS

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 the Department of Psychology handbook 2015-16.

Text: Gravetter, F.J. & Wallnau, L. B. (2012) Statistics for the Behavioural Sciences. 9th Ed. Belmont CA: Thomson/Wadsworth
Additional readings: Supplemental Chapter 20 package required(see York Bookstore)

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) Five term tests non-cumulative term tests (multiple choice questions, short answers and calculations). These tests sum to 70% of your grade. Tests will begin at the beginning of class on the Test day - I will go over the test immediately after. **You are also able to see your test with the TA up until the next Term test date.** You are encouraged to go over each test before the next test to make sure you understand where you may improve, statistics is a course that builds on knowledge from earlier in the course. Do not ignore material you do not understand - it will appear again!

(2) The last 30% is a **cumulative final** (short answers and calculations covering the entire course content).

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. Note that when one term test is missed the final is then weighted 44%, two tests

would result in a final worth 58%. If your health is so severely compromised that you miss more than one test you should consider dropping as you will probably be missing too much lecture time to do well in the course. 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/index.html
    • 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

Important dates

September 14th	First lecture of PSYC2020 B and C
September 24th	Last date to add a course without permission of instructor
Oct 12th	Thanksgiving - no lecture
October 22nd	Last date to add a course with permission of instructor
Oct 29th - Nov 1st	Fall Co-curricular Days
Dec 9th - Dec 23rd	Fall examinations
Feb 5th	Last date to drop courses without receiving a grade
Feb 18th - 19th	Winter Reading Week
March 28th	Last lecture in PSYC 2020 B and C
April 6th - April 20th	Winter Examinations

Part 1	Introduction and Mathematical Review; Frequency distribution and Graphing; Central Tendancy; Variability
Readings	Chapters 1, 2, 3, 4 and Appendix A
TEST 1	October 5th 2015 worth 14%
Part 2	z-score; Probability; Sampling and Distributiions; Hypotheisis Testing and Power
Readings	Chapters 5, 6, 7, and 8
TEST 2	November 9th 2015 worth 14%
Part 3	Single sample t-tests; Independent measures t-tests; Dependent measures t-tests; Confidence intervals; Ordinal tests
Readings	Chapters 9, 10, 11 and Supplemental chapter
TEST 3	Jan 11th 2016 worth 14%
Part 4	ANOVA; Repeated measures ANOVA; Factorial ANOVA;
Readings	Chapters 12, 13, and 14
TEST 4	February 22nd 2016 worth 14%
Part 5	Correlation and Regression Analysis; Chi-Square tests; Which test to use
Readings	Chapters 15, 16, 17 and 19
TEST 5	March 28th 2016 worth 14%
CUMULATIVE FINAL	Scheduled in the Winter Exam period (TBA) Cumulative worth 30%

Date	Topic	Readings
Sept 14	Introduction, Frequency Distributions	Chapter 1,2 Appendix A
Sept 21	Central Tendancy	Chapter 3
Sept 28	Variability	Chapter 4
Oct 5	Test 1	Worth 14%
Oct 12	Thanksgiving - no class	
Oct 19	z-Scores	Chapter 5
Oct 26	Probability and samples	Chapter 6 7
Nov 2	Introduction to hypothesis testing	Chapter 8
Nov 9	Test 2	Worth 14%
Nov 16	Introduction to the t Statistic	Chapter 9
Nov 23	t Test for Two Independent Samples	Chapter 10
Nov 30	t Test for Two Dependent Samples	Chapter 11
Dec 7	No lecture - Review class	
Jan 4	Ordinals	Supplement
Jan 11	Test 3	Worth 14%
Jan 18	Introduction to Analysis of Variance	Chapter 12
Jan 25	Introduction to Analysis of Variance	Chapter 12
Feb 1	Repeated-Measures Analysis of Variance	Chapter 13
Feb 8	Two-Factor Analysis of Variance (Independent measures)	Chapter 14
Feb 15	Family Day - no class	
Feb 22	Test 4	Worth 13%
Feb 29	Correlation	Chapter 15
Mar 7	Introduction to Regression	Chapter 16
Mar 14	The Chi-Squre Statistic	Chapter 17
Mar 21	When to use what test	Chapter 19
Mar 28	Test 5	Worth 13%
April 6 - 20	Cumulative final evaluation	Worth 29%