YORK UNIVERSITY
Faculty of Health, Department of Psychology

Course: HH/SC PSYC 2020 6.0 C Statistical Methods I & II **Term:** Fall 2013 Winter 2014
Time: Lecture Monday 11:30 - 14:30 **Location:** RS203

Course Instructor: Heather Jenkin, Ph. D.
Office: 254 BS **Office Hours:** *TR 1:15 - 2:15 and by appointment*
Tel: 416 736 2100 x22542 **Email contact:** hjenkin@yorku.ca
Email etiquette: Always put PSYC2020 C in Subject header, include your full name and student number in the body of the message.

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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 page 38 of the Department of Psychology handbook 2013-14.

Text: Gravetter, F.J. & Wallnau, L. B. (2012) Statistics for the Behavioral Sciences. 9th Ed. Belmont CA: Thomson/Wadsworth
Additional readings: May be provided

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 65% of your grade. Tests will begin at 11:30 on the Test day - I will go over the test immediately after. You are also able to see your test with the TA 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) There are 8 assignments that are done over the year worth 6% in total. We will count your best 6 of the eight assignments. 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.You can hand them in to me in my office hours, or drop it off with Ms. Barb Thurston in 283 BS.

(3) The last 29% 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 42%, two tests would result in a final worth 55%. 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

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 7th 2013 worth 13%
Part 2	z-score; Probability; Sampling and Distributiions; Hypotheisis Testing and Power
Readings	Chapters 5, 6, 7, and 8
TEST 2	November 18th 2013 worth 13%
Part 3	Single sample t-tests; Independent measures t-tests; Dependent measures t-tests: Confidence intervals (supplement)
Readings	Chapters 9, 10, and 11, (supplement)
TEST 3	Jan 13th 2014 worth 13%
Part 4	ANOVA; Repeated measures ANOVA; Factorial ANOVA; Ordinal tests (Appendix E)
Readings	Chapters 12, 13, 14, Supplement
TEST 4	March 4th 2014 worth 13%
Part 5	Correlation and Regression Analysis; Chi-Square tests; Ordinals (supplement)
Readings	Chapters 15, 16, 17 and 19
TEST 5	March 31st 2014 worth 13%
CUMULATIVE FINAL	Scheduled in the Winter Exam period (TBA) Cumulative worth 29%

Important dates

September 9th	First lecture of PSYC2020 C
September 22nd	Last date to add a course without permission of instructor
Oct 14th	Thanksgiving - no lecture
October 25th	Last date to add a course with permission of instructor
Oct 3oth - Nov 3	Fall Co-curricular Days

Dec 10th - Dec 22nd	Fall examinations
Feb 14th	Last date to drop courses without receiving a grade
Feb 17th - 21st	Winter Reading Week
March 31st	Last lecture in PSYC 2020C
April 8th - April 22nd	Winter Examinations

Date	Topic	Readings
Sept 9	Introduction, Frequency Distributions	Chapter 1,2 Appendix A
Sept 16	Central Tendancy	Chapter 3
Sept 23	Variability	Chapter 4
Sept 30	z-Scores	Chapter 5
Oct 7	Test 1	Worth 13%
Oct 14	Thanksgiving - no class	
Oct 21	Probability	Chapter 6
Oct 28	Probability and Samples	Chapter 7
Nov 4	Introduction to hypothesis testing	Chapter 8
Nov 11	Introduction to hypothesis testing	Chapter 8
Nov 18	Test 2	Worth 13%
Nov 25	Introduction to the t Statistic	Chapter 9
Dec 2	t Test for Two Independent Samples	Chapter 10
Jan 6	t Test for Two Dependent Samples	Chapter 11
Jan 13	Test 3	Worth 13%
Jan 20	Introduction to Analysis of Variance	Chapter 12
Jan 27	Introduction to Analysis of Variance	Chapter 12
Feb 3	Repeated-Measures Analysis of Variance	Chapter 13
Feb 10	Two-Factor Analysis of Variance (Independent measures)	Chapter 14
Feb 17	Family Day - no class	
Feb 24	Ordinals	Supplement
Mar 3	Test 4	Worth 13%
Mar 10	Correlation	Chapter 15
Mar 17	Introduction to Regression	Chapter 16
Mar 24	The Chi-Squre Statistic When to use what test	Chapter 17 Chapter 19
Mar 31	Test 5	Worth 13%
April 8 - 22	Cumulative final evaluation	Worth 29%