

**STATISTICAL METHODS I & II PSYC 2020 6.0 B (FALL/WINTER 2013-2014)**  
**YORK UNIVERSITY**  
**DEPARTMENT OF PSYCHOLOGY**  
**MONDAYS & WEDNESDAY 8:30-10:30, VH 1152A**

COURSE INSTRUCTOR:

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Office Hour: By Appointment

TEACHING ASSISTANT

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Office Hour: Wednesday 1:00-2:00pm

**Note: Please send emails from a York email account and use PSYC2020 in the subject line; otherwise, emails will be will be deleted unread.**

COURSE WEBSITE: [stats2020.yolasite.com](http://stats2020.yolasite.com)

SECRETARY: Agnes Levstik, 281 BSB  
Telephone: (416) 736-5125

**REQUIRED TEXT:** Gravetter, F.J. and Wallnau, L.B. (2013). Statistics for the Behavioral Sciences, 9th ed. St. Paul: Thompson.

Course pre- or co-requisite: You must either have already taken or currently be registered in PSY 1010 6.0. Please note: You cannot take this course for credit if you have taken another Statistics course, in any department or faculty. See page 34-35 of the Psychology Undergraduate Supplementary calendar for the full list of course credit exclusions.

COURSE DESCRIPTION AND GOALS

This course is designed to provide the student with the statistical skills necessary to describe and understand the data from psychological research. Fundamental concepts and techniques of descriptive and inferential statistics will be discussed. Students will gain a greater understanding of the mechanics and underlying rationale of the statistical procedures used by researchers in the behavioral sciences, in addition to the appropriate use and interpretation of statistical results. Topics covered will include: frequency distributions, measures of central tendency and variability, z-scores and probability, hypothesis tests using z scores and single sample t-tests; estimation, one-way and two-way analysis of variance (ANOVA), multiple comparison procedures (post-hoc analysis), repeated measures ANOVA, correlation and prediction, and non-parametric techniques.

COURSE REQUIREMENTS

Grades will be determined by your performance on exams and assignments. There will be 4 exams, weighted equally (20% each of your total grade—80% overall); and assignments will be worth 20% (5% each).

The final exam will be cumulative. It will include new material and concepts from the rest of the course. Exams might include a combination of definitions, multiple choice, true/false, matching, basic calculations, interpretation of data sets, and/or short essay questions.

**In addition to your calculator, writing tools, sessional card, and photo ID, you will be allowed to bring one 3 inch x 5 inch index card on which you may put anything you consider useful (e.g., formulas, definitions, etc.). For the first two exams, you will be allowed to use ONE side of the index card and for the exams 3, and 4 you will be allowed to use BOTH sides of the card. It is important that you show up for all exams on time, as no late students will be allowed to write the exam following any student's departure from the exam room.**

**Assignments** will be distributed in class and will be due at **8:30pm sharp** on the stated due date. A student who will be absent from class on the day an assignment is due must arrange to turn in his/her assignment in 101 BSB prior to the class (please make sure to have the assignment time- and date- stamped by the receptionist). **Assignments not submitted on time will NOT be accepted, and you will receive a grade of zero on that assignment.** Electronic submission of assignments will NOT be accepted under any circumstances. Students are responsible for keeping a copy (electronic or photocopy) of all the submitted work.

You may feel free to discuss the assignments with other students; however the actual work must be done independently. For all assignments, do not simply report the final answer for a problem. Show the computations that produced that answer. If it turns out that your final answer is incorrect, it may still be possible for you to earn partial credit for the problem if some parts of it are done correctly.

**Rounding: Do not round numbers you are computing until the final answer.** Rounding numbers at each step in calculating results in answers that may be significantly different than the keyed answers for both exams and homework. Therefore, **round only your final answer (to two decimal places) only after all calculations have been performed.**

#### POLICY ON MISSED TESTS AND EXAMS

Students are expected to write each test on the dates specified. Make-up exams will be granted **ONLY** under **EXCEPTIONAL DOCUMENTED CIRCUMSTANCES**, such as **serious** illness, or death in the immediate family. If you miss a mandatory piece of course work for no documented reasons, you will receive a grade of zero. Please note that I am extremely strict about the conditions that will allow you to write a make-up examination.

**It is the student's responsibility to contact the teaching assistant (or instructor) in person, by telephone, or by email, within 48 hours of the missed exam. In this email, please (a) outline the reason for your absence, and (b) confirm that you have medical or other relevant documentation to support this reason. Again, be sure to note your course section and your full name and student number in the subject header of your email.** Please note that there will be one set date for the make-up test/exam - - so please make every effort to make this date. A conflict in another course during the time of the make-up is not an acceptable reason for missing the make-up (unless there is an examination in the other course at that time). No

individualized testing is available unless arranged formally through one of the offices at the University (e.g., Counselling and Disability Services (CDS)).

The TA will arrange a date and time for the make-up exam. You will need to receive confirmation of the make-up examination date from your TA; you should be back in touch within a few days with your TA if you have not heard back. It is your responsibility to find out the information about when the make up test/exam is and ensure that you are set to write the make-up test/exam.

### **Documentation when missing an exam/test**

- A. Tests or examinations missed on the grounds of *medical circumstances* must be supported by an Attending Physician's Statement from the Office of the Registrar. (NO other forms will be accepted). The Attending Physician's Statement can be downloaded from:

[http://www.registrar.yorku.ca/pdf/attend\\_physician\\_statement.pdf](http://www.registrar.yorku.ca/pdf/attend_physician_statement.pdf)

NOTE: the physician's office may be contacted to verify that the forms were completed by the physician.

- B. Tests or examinations missed on grounds of *non-medical circumstances* must be supported by appropriate documentation, i.e., death certificates, obituary notice, automobile accident reports, airline/train/bus tickets/receipt for emergency travel, etc. Airline/train/bus ticket/receipts for emergency travel must indicate destination, departure, and return dates.

Missing an exam for a vacation etc. is not an acceptable reason for a make-up exam. Having to work at the time of a test is not considered a valid excuse for missing the test.

If you are ill or facing extreme personal circumstances and are unable to get the required documentation, I highly recommend that you consider dropping the course.

### OTHER INFORMATION:

Regular class attendance is strongly recommended. Reading the textbook and listening in class are essential for successful performance in this course. If you miss a lecture, it is your own responsibility to find out what you have missed (e.g. by asking a fellow classmate for their notes); the **instructor and teaching assistant do not provide lecture notes for students.**

Students are responsible for understanding the nature and avoiding the occurrence of plagiarism and other academic offences. Students are encouraged to read carefully the Faculty of Arts Policy on Academic Dishonesty

([http://www.yorku.ca/health/psyc/policies/academic\\_honesty.htm](http://www.yorku.ca/health/psyc/policies/academic_honesty.htm))

TENTATIVE COURSE SCHEDULE

DATE	LECTURE TOPIC	CHAPTER
Sept 9	Orientation	
Sept. 11	Introduction & Math Review	1 & Appendix A
Sept. 16	Frequency Distributions	2
Sept. 18	Tutorial	
Sept. 23	Central Tendency & Variability	3 & 4
Sept. 25	Tutorial	
Sept. 30	Standardized Distributions	5
Oct. 2	Tutorial	
Oct. 7	<b>Assignment #1 due &amp; Test #1 Review</b>	
Oct. 9	<b>Test #1 (20%)</b>	
Oct. 14	<b>THANKSGIVING – NO CLASS</b>	
Oct. 16	Normal distribution & Probability	6
Oct. 21	Tutorial	7
Oct. 23	Sampling Distributions	8
Oct. 28	Tutorial	
Oct. 30	<b>Co-Curricular Day -- NO CLASS</b>	
Nov. 4	Hypothesis Testing	8
Nov. 6	Tutorial	
Nov. 11	Hypothesis Testing	8
Nov. 13	Tutorial	
Nov. 18	Power and Effect Size	8
Nov. 20	Tutorial	
Nov. 25	Intro to the t-test	9
Nov. 27	<b>Assignment 2 due &amp; Exam Review</b> Tutorial	
Dec. 2	STUDY DAY	
Dec. 4	<b>Test #2</b>	

DATE	LECTURE TOPIC	CHAPTER
Jan.6	Tutorial	
Jan. 8	Inference with independent samples	10
Jan. 13	Tutorial	
Jan. 15	Inference with related samples	11
Jan. 20	Tutorial	
Jan. 22	Analysis of variance	12
Jan. 27	Tutorial	
Jan. 29	Analysis of variance	12
Feb. 3	Tutorial	
Feb. 5	Repeated measures ANOVA	13
Feb. 10	<b>Assignment #3 due</b> , Exam Review & Tutorial	
Feb. 12	<b>TEST #3</b>	
Feb. 17	NO CLASS - READING WEEK	
Feb. 19	NO CLASS - READING WEEK	
Feb. 24	Tutorial	
Feb. 26	Two-factor ANOVA	14
March 3	Tutorial	
March 5	Correlation	15 (omit 15.5)
March 10	Tutorial	
March 12	Regression and Inferences about frequencies	16 (16.1 & 16.2 only) & 17 (omit 17.6)
March 17	Tutorial	
March 19	Inferences about frequencies	17 (omit 17.6)
March 24	Tutorial	
March 26	Techniques for ordinal data	15.5, Appendix E
March 31	<b>Assignment #4 due</b> & Tutorial	
April 2	<b>Test #4</b>	

Any Changes to the Syllabus will be announced in class. Students are responsible for obtaining information on any changes. \*\*\* **Last Date to Drop a Course without receiving a final grade is Feb. 14, 2014.**