

**Faculty of Health**  
**Department of Psychology**  
**PSYC 2020 6.0 Section E**  
**STATISTICAL METHODS I AND II**  
**Fall/Winter 2016-17**  
Fridays 11:30 - 14:20 FC 203

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**Instructor and T.A. Information**

Instructor: Heather Jenkin

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Office Hours: Friday 10:15- 11:15

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Please always put PSYC2020E in the subject header and include your full name and student number in the body of any email to either myself or the TA.

T.A. Yasmeenah Elzein

Email [ye11@yorku.ca](mailto:ye11@yorku.ca)

Office TBA

Office Hours In class and by appointment

**Course Prerequisite(s) or corequisite: Course prerequisites are strictly enforced.**

- HH/PSYC 1010 6.00 (Introduction to Psychology), with a minimum grade of C when used as a prerequisite.

**Course website:** [Moodle](#)

**Course Description**

This course should allow students to be able to identify and calculate both descriptive and inferential statistics. Knowledge of which test to use in a specific situation and how to communicate results to similarly familiar audiences. Students should have a reasonably good working knowledge of high school mathematics. It is expected that students will complete independent work on the course material equivalent to two or three times that spent in lecture. End of chapter questions should be completed and weekly homework is assigned. This homework is taken up during class and on occasion collected for marking. Students should always attempt the homework questions and raise problems they have with the homework so concepts can be further explained. Statistics is a course that requires “doing the math”, it is best not to hide from this.

**Learning Outcomes**

Upon completion of this course, students should be able to:

1. Describe, explain, and calculate descriptive statistics.
2. Distinguish between descriptive and inferential statistics.

3. Compute and interpret univariate inferential statistics.
4. Recognize limits of descriptive statistics.
5. Recognize limits of conclusions based on inferential statistics.

### Specific Learning Objectives

This course is designed to provide the student with the statistical skills necessary to analyze, understand and communicate 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  $\chi^2$  and tests of ordinal data.

### Required Texts

- Gravetter, F.J. & Wallnau, L. B. (2016) Statistics for the Behavioural Sciences. 10<sup>th</sup> Ed. Belmont CA: Thomson/Wadsworth
- Supplemental Chapter 20 from the 8<sup>th</sup> edition package required(see York Bookstore)

### Course Requirements and Assessment

Information on course requirements and assessments.

Assessment	Date of Evaluation (if known)	Weighting
Term Test 1	September 30 2016	14%
Term Test 2	November 4 2016	14%
Term Test 3	January 13 2017	14%
Term Test 4	March 3 2017	14%
Term Test 5	March 31 2017	14%
Cumulative final	In the April exam period	30%
Total		100%

### Description of Assignments

Term Tests are worth 14%, in class tests held on five occasions. Questions may be in true/false, multiple choice, paragraph and short answer calculation format. A formulae sheet will be given as will any required statistical tables needed.

The cumulative final has paragraph and short answer calculation formats covering the entire course content.

### Grading as per Senate Policy

The grading scheme for the course conforms to the 9-point grading system used in undergraduate programs at York (e.g., A+ = 9, A = 8, B+ = 7, C+ = 5, etc.). Assignments and

tests\* will bear either a letter grade designation or a corresponding number grade (e.g. A+ = 90 to 100, A = 80 to 90, B+ = 75 to 79, etc.)

(For a full description of York grading system see the York University Undergraduate Calendar - <http://calendars.students.yorku.ca/2016-2017/academic-and-financial-information/academic-services/grades-and-grading-schemes>)

### **Late Work/Missed Tests or Exams**

Students with a documented reason for missing a course test, such as illness, compassionate grounds, etc., which is confirmed by supporting documentation (Attending Physician Statement which can be found at: <http://registrar.yorku.ca/pdf/attending-physicians-statement.pdf>) may request accommodation from the Course Instructor. The APS is the ONLY form of medical documentation accepted. A Docotr's note is NOTE sufficient. If in doubt contact Dr Jenkin to be advised as other forms of documentation will be accepted. Further extensions or accommodation will require students to submit a formal petition to the Faculty.

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

A missed final will require documentation along with a Deferred Standing Agreement in order for course completion.

### **Add/Drop Deadlines**

For a list of all important dates please refer to: [Important Dates](#)

<b>Important dates</b>	<b>Fall (F)</b>	<b>Year (Y)</b>	<b>Winter (W)</b>
Last date to add a course <b>without</b> permission of instructor (also see Financial Deadlines)	Sept. 21	Sept. 21	Jan. 18
Last date to add a course <b>with permission</b> of instructor (also see Financial Deadlines)	Oct. 5	Oct. 19	Feb. 1
Last date to drop a course without receiving a grade (also see Financial Deadlines)	Nov. 11	Feb. 10	March 10
Course Withdrawal Period (withdraw from a course and receive a "W" on the transcript – see note below)	Nov. 12 - Dec. 5	Feb. 11 - Apr. 5	March 11 - Apr. 5

## **Information on Plagiarism Detection**

It is expected that students do not put forward another's work as their own. Work on all the course evaluations should be done independently. Do not show your work to anyone (or make it available to anyone). Do not look at others' work.

## **Electronic Device Policy**

No photography of slides or board work is allowed without the instructors permission

## **Attendance Policy**

Attendance will not be taken regularly but lecture attendance is expected so that problems with material can be discussed when homework questions are taken up in class. Both the instructor and TA are present in lecture time slot to help students who are having difficulties.

## **Academic Integrity for Students**

York University takes academic integrity very seriously, please visit [an overview of Academic Integrity at York University](#) from the Office of the Vice---President Academic.

The following links will assist you in gaining a better understanding of academic integrity and point you to resources at York that can help you improve your writing and research skills:

- [Information about the Senate Policy on Academic Honesty](#)
- [Online Tutorial on Academic Integrity](#)
- [Information for Students on Text-Matching Software: Turnitin.com](#)
- [Beware! Says who? A pamphlet on how to avoid plagiarism](#)
- [Resources for students to help improve their writing and research skill](#)

## **Test Banks:**

The use of test banks is not permitted in this course and may be considered a potential breach of academic honesty. This includes but is not limited too; buying or selling test banks.

## **Electronic Devices During a Test/Examination:**

Electronic mobile devices of any kind are not allowed during a test or examination. Students are required to turn off and secure any electronic mobile device in their bag which is to be placed under the chair while a test/exam is in progress. Any student observed with an electronic devise during a test/exam may be reported to the Undergraduate Office for a potential breach of Academic Honesty.

## **Academic Accommodation for Students with Disabilities:**

While all individuals are expected to satisfy the requirements of their program of study and to aspire to do so at a level of excellence, the university recognizes that persons with disabilities may require reasonable accommodation to enable them to do so. The [York University Accessibility Hub](#) is your online stop for accessibility on campus. The [Accessibility Hub](#) provides tools, assistance and resources. **Policy Statement**

**Policy:** York University shall make reasonable and appropriate accommodations and adaptations in order to promote the ability of students with disabilities to fulfill the academic requirements of their programs.

The nature and extent of accommodations shall be consistent with and supportive of the integrity of the curriculum and of the academic standards of programs or courses.

Provided that students have given sufficient notice about their accommodation needs, instructors shall take reasonable steps to accommodate these needs in a manner consistent with the guidelines established hereunder.

For Further Information please refer to: [York university academic accommodation for students with disabilities policy](#)

## **Course Materials Copyright Information:**

These course materials are designed for use as part of the PSYC 2020 6.0E course at York University and are the property of the instructor unless otherwise stated. Third party copyrighted materials (such as book chapters, journal articles, music, videos, etc.) have either been licensed for use in this course or fall under an exception or limitation in Canadian Copyright law.

Copying this material for distribution (e.g. uploading material to a commercial third-party website) may lead to a violation of Copyright law. [Intellectual Property Rights Statement](#)

## Course Schedule:

Date	Topic	Readings
Sept 9	Introduction, Frequency Distributions	Chapter 1, 2 Appendix A
Sept 16	Central Tendency	Chapter 3
Sept 23	Variability	Chapter 4
Sept 30	Test 1	Worth 14%
Oct 7	z-Scores	Chapter 5
Oct 14	Probability and samples	Chapters 6, 7
Oct 21	Introduction to hypothesis testing	Chapter 8
Oct 28	Fall co-curricular Days - no class	
Nov 4	Test 2	Worth 14%
Nov 11	Introduction to the t Statistic	Chapter 9
Nov 18	t Test for Two Independent Samples	Chapter 10
Nov 25	t Test for Two Dependent Samples	Chapter 11
Dec 2	Ordinals	Supplement Chapter 20
Jan 6	No lecture - Review Class	
Jan 13	Test 3	Worth 14%
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	Chapter 14
Feb 17	Ordinals	Supplement Chapter 20
Feb 24	Reading Week - no class	
Mar 3	Test 4	Worth 14%
Mar 10	Correlation	Chapter 15
Mar 17	Introduction to Regression	Chapter 16
Mar 24	The Chi-Square Statistic	Chapter 17
Mar 31	Test 5	Worth 14%
April 7 - 24	Cumulative final evaluation TBD in the exam period	Worth 30%