Course Description: Statistical Methods I is an introductory course focusing on descriptive statistics, numerical and graphical summaries of research data, and inferential statistics, the drawing of reasonable and valid conclusions from such data. The principal goal of the course is to introduce students to the fundamentals of statistical reasoning and to the role of statistical methods in psychological research. By the end of the course, students should be able to:

- Summarize and observe patterns in statistical data and refer to them with proper notation
- Understand how data are generated according to observational and experimental research designs
- Understand the basis for statistical inference and be able to make appropriate conclusions about the populations from which the data was drawn
- Have some idea about how to conduct such analyses using SPSS

Learning Objectives: Students are expected to become familiar with the use of a range of statistical techniques that are commonly used in psychological research. They should be able to select an appropriate statistical test, given a particular dataset, accurately compute the relevant statistical tests, and clearly and correctly interpret the test’s results in ordinary language. Emphasis will be placed on theoretical understanding (rather than number crunching) and graphical methods.

Course prerequisite or co-requisite: PSYC 1010 6.0 or PSYC 2410 6.0, with a minimum grade of C.


Required Online Supplement: By enrolling in this course, you are required to create a www.Aplia.com account, which is an online accompaniment to the textbook. As outlined below, 25% of your grade will pertain to your performance on the assignments found on this website. When you register with Aplia, make sure to use the following key to access the course materials:

Aplia Access Key: AJJ4-6L6W-8WWZ

*** FAILURE TO DO SO WILL RESULT IN YOUR ASSIGNMENTS NOT BEING GRADED! ***
Midterm and Final Exam: While a calculator is required for each exam, please note that graphing calculators and cellphones are not acceptable and, if they are used, will be confiscated for the duration of the exam. Both exams will consist of multiple-choice, as well as short answer/analysis based questions. Presentation of a York University student ID is required for participation in either exam.

Aplia Quizzes: As previously mentioned, there will be a quiz/assignment accessed via Aplia after each lecture. Only elements on Aplia marked as “graded” count toward the 25%. The graded quizzes will be available until the following Monday at 12:00pm. Students will be given up to three attempts for each section of each assignment and the average of those attempts will be used to calculate their score for the quiz. Please be sure to give yourself enough time to complete each quiz! If a quiz is not completed by the given due date, it will receive a mark of zero.

Grading: The final grading scheme for the course conforms to the 9-point system used in undergraduate programs at York University (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.

Tentative Schedule and Important Dates:

<table>
<thead>
<tr>
<th>January</th>
<th>7th</th>
<th>Course Introduction, Using Aplia, Chapter 1: Descriptive Statistics</th>
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<tbody>
<tr>
<td>14th</td>
<td></td>
<td>Chapter 2: Frequency Distributions</td>
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<tr>
<td>21st</td>
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<td>Chapter 3 &amp; 4: Central Tendency &amp; Variability</td>
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<tr>
<td>28th</td>
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<td>Chapter 5 &amp; 6: Standardized Distribution &amp; Probability</td>
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<td>February</td>
<td>4th</td>
<td>Chapter 7 &amp; 8: Probability cont’d &amp; Hypothesis Testing</td>
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<td>11th</td>
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<td>Chapter 8: Hypothesis Testing cont’d, Review Class</td>
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<td>18th – 22nd</td>
<td></td>
<td>READING WEEK – NO CLASS</td>
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<td>25th</td>
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<td>MIDTERM (35%)</td>
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<tr>
<td>March</td>
<td>4th</td>
<td>Chapter 9: One-Sample t-Test</td>
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<td>15th</td>
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<td>Chapter 10: t-Test for Two Independent Samples</td>
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<tr>
<td>18th</td>
<td></td>
<td>DROP DATE FOR COURSE</td>
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<tr>
<td>25th</td>
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<td>Chapter 11: t-Test for Dependent Samples</td>
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<td>April</td>
<td>1st</td>
<td>Chapter 15 &amp; 16: Correlation and Regression</td>
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<td>10th – 26th</td>
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<td>FINAL EXAM (40%) – DATE TO BE ANNOUNCED</td>
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Supplementary Texts (NOT necessary for the course but good resources):


**POLICY ON MISSED EXAMS**

1. Students are expected to write each test on the dates specified. **If you miss a test for no documented reason(s), you will receive a grade of zero.**

2. If you have a legitimate reason (e.g., death in the family, severe illness, etc.) for being excused from a test/exam, and have documentation to verify your absence, you may take a make-up test/exam in lieu of the missed test/exam. Please note that we are extremely strict about the conditions that will allow you to write a make-up examination (missing an exam for a vacation is not an acceptable reason!).
3. **Within 48 hours of the missed exam, students must contact the course instructor and the TAs via email.** 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. Be sure to note your course section and your full name and student number in the subject of your email.

4. There will be **one set date for the make-up test/exam.** For the first exam, students who are unable to attend at the make-up time due to further or continued **documented** illness or significant personal hardship may be excused from the test, and their final course grade will be pro-rated to reflect this. For the final examination, relevant university policies will be followed.

5. If you miss a test, regardless of your reason, you have waived the right to have a specific percentage of graded feedback available to you prior to the drop date.

6. Note that deferred final exams are held on a single common date determined by the Department of Psychology. No individualized testing is available unless arranged formally through one of the offices at the University (e.g., Counseling and Disability Services).

7. Once you have contacted the course instructor and your TA, you will need to submit an attending physician’s statement ([http://www.registrar.yorku.ca/exams/deferred/](http://www.registrar.yorku.ca/exams/deferred/)). This should be brought to your TA’s mailbox or faxed to (416) 736-5814, addressed to Matthew Sigal. **It is your responsibility to find out when the make up exam is from your TA!**

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**Academic Integrity:** All students are expected to abide by the university’s policies on academic integrity. The relevant documents can be found here: [http://www.yorku.ca/academicintegrity/students/index.htm](http://www.yorku.ca/academicintegrity/students/index.htm). Although not limited to the following four, any student found (1) looking at another student’s examination (2) communicating with another student during the examination, (3) in possession of unauthorized documents (e.g., notes) in the examination, or (4) receiving unauthorized communications from outside the examination room will be considered to be in violation of one or more of the university’s academic integrity policies and appropriate disciplinary steps will be taken.

**Disability Accommodation.** Appropriate accommodation will be made in accordance with the policies of the university ([http://www.yorku.ca/secretariat/policies/document.php?document=68](http://www.yorku.ca/secretariat/policies/document.php?document=68)). Students should consult with the university’s accommodations office for relevant documentation.

**Religious Accommodation.** Appropriate accommodation will be made in accordance with the policies of the university. Please see the instructor at your earliest opportunity if you discover issues relating to your religious practices and the expectations of the course.

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**Other Important Information:**

Code of Student Rights and Responsibilities

York University Secretariat Home:

Policy on Accommodation for students with Disabilities:

Policy on plagiarism and academic honesty:
[http://www.yorku.ca/academicintegrity/students/index.htm](http://www.yorku.ca/academicintegrity/students/index.htm)