YORK UNIVERSITY
Faculty of Health, Department of Psychology

PSYC 2021 3.0 Section A: STATISTICAL METHODS I

Tuesdays & Thursdays, 11:30-14:30   Accolade West Room 206 (ACW206)

Instructor: Dr. Larissa Panetta   TA: Jaykishan Patel

Email: lpanetta@yorku.ca   Email: jay96@my.yorku.ca

Office Hours: by appointment   Office Hours: TBD

When sending emails to the teaching team, please include "PSYC2021A" in the subject line

Required Textbook: Gravetter, F. J., & Wallnau, L. G. (2017). *Statistics for the Behavioural Sciences* (10th Ed.). Belmont, CA: Wadsworth, Cengage Learning

Required Software: MindTap (included with text purchase)

Course Websites: eClass (eclass.yorku.ca) & **MindTap** (student.cengage.com/course-link/MTPNM9H322LN)

Course Schedule:

DATE	TOPIC	CHAPTER
Tues May 7	Introduction to Statistics	Chapter 1
Thurs May 9	Frequency Distributions	Chapter 2
Tues May 14	Central Tendency and Variability	Chapters 3 and 4
Thurs May 16	z-Scores and Standardized Distributions	Chapter 5
Tues May 21	Probability and the Distribution of Sample Means	Chapters 6 and 7
Thurs May 23	Introduction to Hypothesis Testing	Chapter 8
Tues May 28	*MIDTERM EXAM*	*Chapters 1-8*
Thurs May 30	t-Test for One Sample	Chapter 9
Tues June 4	t-Test for Two Independent Samples	Chapter 10
Thurs June 6	t-Test for Two Dependent/Related Samples	Chapter 11
Tues June 11	Correlation	Chapter 15
Thurs June 13	Chi-Square	Chapter 17
June 19/20/21	*FINAL EXAM*	*Chapters 9-11, 15, 17*

General Course Description: The fundamental concepts and application of descriptive statistics. An introduction to probability and inferential statistics, including hypothesis testing with the normal- and t-distributions. Prerequisite or corequisite: HH/PSYC 1010 6.00, GL/PSYC 2510 6.00 Course credit exclusions: HH/PSYC 2020 6.00, SC/BIOL 2060 3.00, HH/KINE 2050 3.00, SC/MATH 2500 3.00, SC/MATH 2560 3.00. Please refer to **York Courses Website** for a full list.

Program Learning Outcomes: Upon completion of this course, students should be able to…

- Compute descriptive statistics and inferential statistics.

- Interpret and report the results of descriptive statistics and inferential statistics.

- Distinguish between the role of descriptive statistics and inferential statistics.

Specific Learning Objectives:

- Differentiate descriptive and inferential statistics and define relevant key terms.
- Identify the scales of measurement used in various variables and research scenarios.
- Calculate descriptive statistics (i.e., measures of central tendency and variability).
- Generate research questions and statistical (i.e., null and alternative) hypotheses.
- Understand the logic underlying hypothesis testing and how researchers use hypothesis testing to answer questions about data.
- Conduct and interpret the results of various statistical tests (i.e., z-tests, t-tests, chi-square).
- Understand the need for, how to calculate, and how to interpret effect sizes corresponding to inferential statistics.

Course Pacing: The Summer 1 semester offers a condensed, 6-week version of this course. The term goes by very quickly! It is important to stay on top of course content as each lecture goes by because the content builds upon previous knowledge. A time commitment of _an average of 12 to 15 hours per week_ is typical for this course. This will include time spent reading the textbook, attending in-person classes, and completing assigned MindTap activities for that topic at home. Studying for tests may require additional time around their respective deadlines.

Course Resources:

- Lecture slides, grades, and important course announcements will be available on **eClass**.

- Shortcuts to e-book versions of the text, practice problems, and weekly Chapter Exams will be available on **MindTap**.
- Opportunities to ask questions and complete practice problems will occur during lecture. Time before and after lecture to ask questions will often be available.

Course Assessment and Evaluation:

DATE	LOCATION	DESCRIPTION	WEIGHTING
Tuesday May 28 at 11:30am	In class (ACW206)	Midterm Exam	40%
Exam Period: June 19/20/21	TBD	Final Exam	40%
Friday June 21 at 11:59pm*	Online (MindTap)	x13 MindTap Chapter Exams	20%

***completing MindTap Chapter Exams on a weekly basis is strongly recommended!**

Description of Course Assessments:

Midterm and Final Exams:

The Midterm Exam will be held during class on May 28. It will test your knowledge of:
1) textbook chapters 1 through 8, and 2) the first 6 lectures of class (May 7-May 23).

The Final Exam will be held during the exam period on June 19, 20, or 21. It will test your knowledge of: 1) textbook chapters 9, 10, 11, 15, and 17, and 2) the final 6 lectures of class (May 30-June 13). *While the final exam is "non-cumulative", please note that the course builds upon its own content each week. In this way, information learned in earlier chapters is necessary to understand and complete problems in later chapters.*

Both exams will consist of multiple choice questions and hand calculations where you are expected to show your work. You will be allowed to use a calculator (please bring your own). Formula sheets and relevant tables from Appendix B will be provided for you during the exam.

MindTap Chapter Exams:

MindTap is a required online learning component that compliments your textbook. Our access code for this course is MTPNM9H322LN. When you login to MindTap, you will see it is organized by textbook chapter. For each chapter, MindTap includes the following:

1) a shortcut to open the e-book version of that textbook chapter so you can read it

2) three *practice* activities to help you master the concepts taught in that chapter, including (a) Mastery Training (to learn key terms), (b) End of Chapter Problems (practice problems from the textbook), and (c) a Chapter Problem Set (additional practice problems)

3) one *graded* Chapter Exam which tests your knowledge. Each of these Chapter Exams have no time limit, and you have 2 attempts at each exam. There are 13 end of chapter exams in total.

Because of the tight timeline of the course, the due date for all 13 MindTap Chapter Exams is set for June 21 at 11:59PM. This allows you to complete them at your own pace. However, *it is strongly recommended you do these week-by-week* to help you prepare for your exams and understand where you need more support in learning the course content.

Weighting of Course Assessments: The Midterm and Final Exams are each worth 40% of your final grade. Your average MindTap Chapter Exam score is worth 20% of your final grade. Your lowest score will be dropped. Average MindTap Chapter Exam score is calculated by: 1) removing your lowest score, 2) adding the other 12 scores together, and 3) dividing by 12.

The MindTap Chapter Exams are meant to reward your participation and promote weekly learning. They are not meant to create stress or add to your heavy workload in this course, but to serve as a tool to help you pace yourself and understand your areas of need as you study. As a result, *if your average MindTap Chapter Exam score is **lower** than your Midterm and Final Exam marks, it will **NOT** be included in your final grade*. In that scenario, your Midterm and Final Exam would each become worth 50% of your final grade in the course. Your final grade will be

calculated with and without the inclusion of your average MindTap Chapter Exam score; whichever grade is higher will become your final grade in the course. My hope is that this will encourage you to *complete MindTap Chapter Exams ahead of time*, while you are still learning, instead of aiming for perfection on these and waiting too long to test your knowledge.

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 89, B+ = 75 to 79, etc.)

For a full description of York grading system see the York University Undergraduate Calendar: **Grading Scheme for 2023-2024**.

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 university encourages students with disabilities to register with **Student Accessibility Services (SAS)** to discuss their accommodation needs as early as possible in the term to establish the recommended academic accommodations that will be communicated to Course Directors as necessary.

Please let me know by email as early as possible in the term if you anticipate requiring academic accommodation so that we can discuss how to consider your accommodation needs within the context of this course.

Excerpt from Senate Policy on Academic Accommodation for Students with Disabilities

1. Pursuant to its commitment to sustaining an inclusive, equitable community in which all members are treated with respect and dignity, and consistent with applicable accessibility legislation, York University shall make reasonable and appropriate accommodations in order to promote the ability of students with disabilities to fulfill the academic requirements of their programs. This policy aims to eliminate systemic barriers to participation in academic activities by students with disabilities.

All students are expected to satisfy the essential learning outcomes of courses. Accommodations shall be consistent with, support and preserve the academic integrity of the curriculum and the academic standards of courses and programs. For further information please refer to **York University Academic Accommodation for Students with Disabilities Policy**.

Academic Integrity for Students

York University takes academic integrity very seriously; please familiarize yourself with **Information about the Senate Policy on Academic Honesty**.

It is recommended that you review Academic Integrity by completing the **Academic Integrity Tutorial** and the **Academic Honesty Test**.

Test Banks

The offering for sale of, buying of, and attempting to sell or buy test banks (banks of test questions and/or answers), or any course specific test questions/answers is not permitted in the Faculty of Health. Any student found to be doing this may be considered to have breached the Senate Policy on Academic Honesty. In particular, buying and attempting to sell banks of test questions and/or answers may be considered as "Cheating in an attempt to gain an improper advantage in an academic evaluation" (article 2.1.1 from the Senate Policy) and/or "encouraging, enabling or causing others" (article 2.1.10 from the Senate Policy) to cheat.

Course Materials Copyright Information

These course materials are designed for use as part of the PSYC2021A 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. See **Intellectual Property Rights Statement**.

Add and Drop Deadlines: A full list of dates is available at **Summer 2024 Important Dates**.

	SU TERM	S1 TERM	S2 TERM
Last date to add a course **without permission** of instructor (also see Financial Deadlines)	May 28	May 1	July 8
Last date to add a course **with permission** of instructor (also see Financial Deadlines)	June 11	May 21	July 15
Drop deadline: Last date to drop a course without receiving a grade (also see Financial Deadlines)	July 23	June 3	July 29
Course Withdrawal Period (withdraw from a course and receive a grade of "W" on transcript)	July 24 – Aug 13	June 4 – June 17	July 30 – Aug 13

Add and Drop Deadline Information:

There are deadlines for adding and dropping courses, both academic and financial. Since, for the most part, the dates are different, be sure to read the information carefully so that you understand the differences between the sessional dates below and the **Refund Tables**.

You are strongly advised to pay close attention to the "Last date to enrol without permission of course instructor" deadlines. These deadlines represent the last date students have unrestricted access to the registration and enrolment system. After that date, you must contact the professor/department offering the course to arrange permission.

You can drop courses using the registration and enrolment system up until the last date to drop a course without receiving a grade (drop deadline). You may choose **Course Withdrawal** using the registration and enrolment system. This can occur after the drop deadline until the last day of class for the term associated with the course. When you withdraw from a course, the course remains on your transcript without a grade and is notated as 'W'. The withdrawal will not affect your grade point average or count towards the credits required for your degree.

Missed Exams

If you miss the midterm or final exam, students MUST complete the following online form which will be received and reviewed in the Psychology undergraduate office: **HH PSYC: Missed Tests/Exams Form**. At this time, due to COVID-19 an Attending Physician's Statement (APS) is not required, however, a reason for missing an evaluated component in the course must be provided. Failure to complete the form within 48 hours of the exam start time will result in a grade of zero for the missed exam. quiz or late assignment.

Electronic Device Policy

This course will be delivered in lecture format with an online learning component for you to complete at home. Electronic devices (e.g., tablets, laptops) are permitted during class time for course-related purposes. No electronic devices are allowed during the Midterm or Final Exam except for a calculator that does not connect to wifi/data.