By Faculty of Health
Department of Psychology
PSYC 2022 3.0 M: STATISTICAL METHODS II
Friday/11:30am-2:30pm/ Online via Zoom
Winter/2021

IMPORTANT INFORMATION ABOUT COURSE DELIVERY:

- All lecture content will be pre-recorded and you will be expected to watch the videos before lecture. **You will have the opportunity to submit questions about the video content by 11:59pm on Thursday through eClass** so that we have time to organize questions into meaningful categories. You will be able to ask questions during the live zoom session as well.
- We will **meet live on Zoom every Friday at 11:30am for approximately 1h – 1h30mins** where the teaching team (i.e., instructor and TAs) will address the questions submitted and you will participate in some activities/demonstrations to aid in your understanding of the concepts covered in the lecture. I strongly encourage you to attend these sessions as students have found this time to be valuable in helping them understand course material. Please note this session should be treated like an official class and therefore you are expected to conduct yourself in a respectable manner (please see ***"Online Conduct"*** document on eClass).
- Please note that your quizzes will take place during the assigned class time 11:30am – 2:30pm and therefore **it is expected that you will be available during this time**. More information about your quizzes is provided below. All other assessments can be completed outside the assigned class time but will have specific due dates. **There will be no weekly live class activity on the day a quiz is scheduled**.

Instructor and T.A. Information

Instructor: Monique Herbert, PhD
Office Hours: By appointment only
Email: herbertm@yorku.ca (when sending an email please include PSYC2022M in the subject box and your full name and student number in the signature of the message)

T.A.	Alyssia Wilson	Theresa Flagler
Email	alyssiaw@yorku.ca	tflagler@yorku.ca
Office Hours	By appointment	By appointment

Please note that it may take the instructor and TAs up to 3 business days to respond to your emails. If you send us an email over the weekend please do not expect a response until the normal work week (Monday – Friday) unless otherwise stated by a member of the teaching team or it is an urgent matter.

Course Prerequisite(s): Course prerequisites are strictly enforced.

- HH/PSYC 2021 3.00 (Statistical Methods I)

Course Prerequisite or corequisite(s):

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

Course Credit Exclusions

Please refer to York Courses Website for a listing of any course credit exclusions.

Course website: eClass

All course materials will be available on the course eClass site, unless otherwise indicated by the instructor. The site will be your central access point for course materials. **Note: Please do not send the teaching team messages through the chat on eClass.**

Course Description

A continuation of the study of fundamental concepts and techniques of descriptive and inferential statistics. Topics include correlation, regression, analysis of variance, and non-parametric statistics.

Program Learning Outcomes

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

1. Compute inferential statistics for univariate linear models (ANOVA, regression).
2. Interpret and report the results of inferential statistics for univariate linear models.
3. Recognize the limits of inferential statistics.

Topics Covered

- Review of basic statistical concepts
- One-way Independent Groups ANOVA (with contrasts)
- Two-way Independent Groups ANOVA (with interaction and contrasts)
- One-way Repeated Measures ANOVA (with contrasts)
- Correlation (including partial correlation)
- Simple Regression
- Multiple Regression

**Effect size is included as part of all inferential statistics covered in this course.*

Specific Learning Objectives

- Demonstrate a deeper understanding of the statistical concepts reviewed and extended in this course.
- Identify and apply appropriate statistical analysis(es) to address specific research question(s) and/or hypotheses.
- Demonstrate the ability to compute univariate inferential statistics (where necessary for conceptual understanding)
- Interpret and report the results of statistical analyses from statistical software, in APA forma for various research situations.
- Identify limits of conlusions based on inferential statistics (e.g., statistical vs practical significance)

Required Text

There is no required text for this course. All materials and a list of resources to aid in your learning will be provided to you but see below for a list of recommended texts/resources you can consult.

Recommended text/resources
Gravetter, F. J., & Wallnau, L. B. *Statistics for the behavioral sciences* . Wadsworth Publishing, Cengage Learning. (8th -10th edition would be useful)

Howell, D. C. (2016). Fundamental statistics for the behavioral sciences (9th ed). Wadsworth Publishing, Cengage Learning.

https://open.umn.edu/opentextbooks/textbooks/an-introduction-to-psychological-statistics

APA resource:
https://owl.purdue.edu/owl/research_and_citation/apa_style/apa_formatting_and_style_guide/reference_list_books.html

Course Requirements and Assessment:

Assessment	Date of Evaluation (if known)	Weighting
Participation	Course activities, surveys & iClicker	5%
Stats Check 1	Feb 08	5%
Stats Check 2	Mar 15	5%
Stats Check 3	Mar 29	5%
Quiz 1	Feb 26	10%
Quiz 2	Apr 09	10%
Assignment 1	Feb 26	25%
Assignment 2	Apr 12	35%
Total		**100%**

Description of Assignments

Participation: You will have the opportunity to participate in various activities throughout the course such as completing feedback surveys related to course information (e.g., course outline), responding to iClicker questions during our weekly class meeting or outside of our weekly class meeting etc. More information about iClicker can be found in the ***"Class Participation"*** folder on eClass.

Stats Check: Students will complete an activity that covers key material taught throughout the course. This activity will be completed outside the normal class meeting time and students will be allowed to work individually or in groups of two only. The activity may take the form of a scenario where students will be asked to read some information and then respond to a question(s) – students will need to use course materials and other resources to respond. These activities will be made available in the ***"Stats Checks and Quizzes"*** folder in eClass on the assigned dates provided in the ***"Course Schedule"*** below and you will receive them in advance of the due date.

Quizzes: Quizzes will be non-cumulative and cover the material from lectures, readings, and class & stats check activites. The format of the quizzes may be a mix of multiple-choice and open-ended/short-answer questions (e.g., defining concepts or responses to analysis questions). Quizzes will take place during the assigned class time: 11:30am-2:30pm. More information about the content, format and length of the quiz will be provided prior to its administration and you can access a quiz in the ***"Stats Checks and Quizzes"*** folder in eClass.

Assignments: The purpose of an assignment is to further evaluate your conceptual understanding of the material covered in class, to demonstrate that you can perform the types of analysis covered in this course and that you can interpret/report the results. Assignments will be completed outside the normal class time and students are expected to complete their assignment individually. More information will be provided in the ***"Assignment Instruction and Submission"*** folder in eClass and you will receive each assignment in advance of the due date.

Class Format and Attendance Policy

Each week we will meet at 11:30am to discuss any questions you may have and engage in various activities (unless there is a quiz scheduled on that day). Students are strongly encouraged to attend the class sessions as the material covered in the course in a given week build on the previous week's material and enhances your overall learning experience. These sessions will also help you to stay on track with the course material.

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 2020-21

Missed Tests/Midterm Exams/Late Assignment:

For any missed or late class assessment students MUST complete the ***"Missed Assessment Form"*** under the ***"Communication"*** folder in eClass.

Failure to complete the form within 48 hours of the original deadline will result in a grade of zero for any missed or late assessment. **At this time, due to COVID-19 an Attending Physician's Statement (APS) is not required, however, a reason for a missed/late assessment in the course must be provided.**

Missed Quiz: Once you have notified us about your missed quiz, a member of the teaching team will be in contact with you to schedule a make-up. There is only one opportunity to write a make-up quiz; the makeup may be in a different form from the original test. If you do not contact us or complete the form within 48 hours you will be assigned a 0. **Please note that a stats check or an assignment cannot be used as a subsititute for a missed quiz.**

Late Stats Check/Assignment: Similar to your quizzes you must have a valid reason for missing the scheduled due date for your stats check or assignment. It is up to the course instructor to determine how much additional time, if any, will be allowed to complete and submit the stats check/assignment. **Please note that a quiz cannot be used as a subsititute for a stats check or assignment and a stats check cannot be used as a substitute for an assignment or vice versa.**

Add/Drop Deadlines

For a list of all important dates please refer to: Fall/Winter 2020-21 Important Dates

	Fall (F)	Year (Y)	Winter (W)
Last date to add a course **without permission** of instructor (also see Financial Deadlines)	Sept 22.	Sept 22.	Jan. 25
Last date to add a course **with permission** of instructor (also see Financial Deadlines)	Oct. 6	Oct. 27	Feb. 8
Drop deadline: Last date to drop a course without receiving a grade (also see Financial Deadlines)	Nov. 6	Feb. 5	March 12
Course Withdrawal Period (withdraw from a course and receive a grade of "W" on transcript – see note below)	Nov. 7-Dec. 8	Feb. 6 – April 12	March 13-April 12

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 withdraw from a course using the registration and enrolment system 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.

Information on Plagiarism Detection

Turnitin will be used to detect any evidence of plagiarism.

Electronic Device Policy

This course will be delivered in an online format and therefore electronic devices (e.g., tablets, laptops) are permitted during class time for course-related purposes. It is expected that you would complete quizzes in a manner that does not require consulting an unauthorised source during a quiz.

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 Academic Honesty Quiz

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.

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 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.**

https://accessibility.students.yorku.ca/

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.

Course Materials Copyright Information

These course materials are designed for use as part of the PSYC2022M 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

Week	*Date*	*Topic*	*Reminder*
1	Jan 15	*Course Overview*	
2	Jan 22	*Key statistical concepts* *Working with data*	
3	Jan 29	*Independent samples (between subjects) designs* *Independent samples t test*	
4	Feb 05	*One-Factor Analysis of Variance*	**Stats Check #1** **Due Monday, Feb 08**
5	Feb 12	*Two-Factor Analysis of Variance*	
	Feb 19	**NO CLASS – WINTER READING WEEK**	
6	Feb 26	**QUIZ 1 (10%) – COVERS WEEKS 3, 4, & 5** **ASSIGNMENT 1 DUE (25%)** **DROP-IN ZOOM SESSION**	
7	Mar 05	*Dependent samples (within subjects) designs* *Dependent samples t test* **Last date to drop course without receiving a grade**	
8	Mar 12	*Repeated-Measures Analysis of Variance*	**Stats Check #2** **Due Monday, Mar 15**
9	Mar 19	*Correlation*	
10	Mar 26	*Introduction to Regression*	**Stats Check #3** **Due Monday, Mar 29**
	Apr 02	**NO CLASS – GOOD FRIDAY**	
11	Apr 09	**QUIZ 2 (10%) - COVERS WEEKS 7, 8, 9, 10, 11** **DROP-IN ZOOM SESSION**	
12	Apr 12	**DROP-IN ZOOM SESSION** **ASSIGNMENT 2 DUE (35%)** **Last date to withdraw from course**	