

YORK UNIVERSITY**Faculty of Health, Department of Psychology****Course:** HH / PSYC 2022 3.0 A Statistical Methods II**Term:** Fall 2015**Time:** Mon 7:00-10:00 pm**Location:** CLH A**Course Instructor:** Holly Clayton, MA**Office:** FARQ 117**Office Hours:** M 5:30-6:30 & by appointment**Phone:** 416-736-2100 x. 30029**E-mail:** hollis@yorku.ca**E-mail Etiquette:** Always put PSYC 2022 A in the subject header. Include your full name and student number in the body of the message.**Teaching Assistant:**

Jennifer Ruttle, B.A

Office: FARQ 122**E-mail:** jeruttle@my.yorku.ca**Office Hours:** M 5:30-6:30 & by appointment

Course Description: This course is designed to provide students with the statistical skills necessary to analyze and understand data from psychological research. It is a course that builds on knowledge acquired in Statistical Methods I (the study of fundamental concepts and techniques of descriptive and inferential statistics). Some topics covered will include: Hypothesis tests using t-tests (independent and repeated measures), ANOVA (independent, repeated and factorial designs), non-parametric tests, correlation, regression and chi-square. Students should be able to identify the correct statistical test to use, and use the test appropriately on simple datasets by the end of the course. Mathematical competency gained from PSYC 2021 is expected.

Organization: The course involves formal lectures by the instructor on topics outlined below in the reading schedule. The required readings are central to the course. Class time will also include practical time that will serve to clarify and illustrate assigned topics, with the completion of weekly homework problems, which are modelled next class. This is important as they provide useful experience with statistical tasks. Suggested problems will be posted on Moodle. It is advisable that students complete these problems ahead of time. Optional In-Class Labs will serve as enrichment activities, as well as supervised practice with the teaching team. They will also give insight into how important statistics is for your degree, and research in general.

Course Text:

1. The following text is required for the course: Gravetter, F.J. & Wallnau, L.B. (2013) Statistics for the Behavioural Sciences, 9th Ed. Belmont CA: Thomson/Wadsworth.
2. **Supplemental package required (Chapter 20 AND access to MindTap)**
** Items may be purchased separately or in packaged form**

It is **recommended** you buy your own copy from the York Bookstore, as you will need access to MindTap, the book's online resource which contains assignments that count towards your final grade, in addition to a wide variety of learning tools (even the e-book!). Instructions for registering your MindTap key are on Moodle. If you only need MindTap, email our Nelson Textbook Rep, Breken Finnie (breken.finnie@nelson.com).

Prerequisite: One of AK/AS/HH/SC/PSYC 2021 3.00, AK/HH/PSYC 2510 3.00, AS/ECON 2500 3.00, AS/HH/SC/KINE 2050 3.00, AK/AS/SC/MATH 2560 3.00.

Prerequisite or co-requisite: AK/AS/HH/SC/PSYC 1010 6.00 or AK/HH/PSYC 2410 6.00, GL/PSYC 2510 6.00, with a minimum grade of C when used as a prerequisite.

Course credit exclusions: AK/AS/HH/SC/PSYC 2020 6.00, AK/PSYC 3110 3.00 (prior to Summer 2002), AK/ECON 3480 3.00, AS/ECON 3500 3.00, AS/HH/SC/KINE 3150 3.00, AK/AS/SC/MATH 2570 3.00, AS/POLS 3300 6.00, AS/SOCI 3030 6.00.

Note: SC/BIOL 2060 3.00, SC/BIOL 3090 3.00, or AS/SC/MATH 2500 3.00 may not be substituted for AK/AS/SCPSYC 2022 3.00 for major or minor credit in psychology.

Website: Make sure that you sign up for a Moodle account as soon as possible. Go to <http://moodle.yorku.ca> and follow the instructions. You need to log-on using your Passport York ID and password. Once registered, you can see all Moodle websites associated with the courses you are registered in.

Evaluation:

The final grade for the course will be based on the following weighted items:

<i>MindTap Assignments</i>	20%	Through-out the term; Best 5 of 7 count
<i>Term Test 1</i>	15%	In class, 120 minutes, October 19th
<i>Term Test 2</i>	25%	In class, 120 minutes, November 23rd
<i>Cumulative Final Exam</i>	40%	In the exam period, 3 hours, December 9-23

The in-class tests will cover material from lectures and readings preceding the test date. The final examination will be **cumulative**, covering **all course material**.

Missed Evaluations: Students must e-mail the **instructor within 24 hours** of a missed evaluation (assignment, test or exam). Any student with a documented reason for missing any of the above evaluations, such as illness, compassionate grounds, etc., which is confirmed by supporting documentation (Attending Physician's Statement) may request accommodation from the Course Instructor. The Attending Physician's Statement form can be found on the Moodle website. Accommodations **may** include permission to write a make-up test, an extension on an assignment, or a re-weighting of the course evaluations. Further extensions or accommodation will require students to submit a formal petition to the Faculty. No extensions or exemptions because of technical difficulties.

ADDITIONAL TEST INFORMATION

- For tests (and the final!), you must bring your York sessional and photo ID, writing tools, and a **very basic** calculator (+, -, x, ÷, and $\sqrt{\quad}$ only).
- A 3 x 5 inch “cheat sheet” with handwritten notes (***one side*** for term tests. **Two sides** allowed for the final ☺).
- Statistical tables will be provided as needed.

Date	Topic	Chapter
Sept. 14	Introduction and Review of Hypothesis Testing	9
Sept. 21	The T-Test for 2 Independent Samples & Mann-Whitney	10 & 20
Sept. 28*	The T-Test for 2 Related Samples & Wilcoxon	11 & 20
Oct. 5*	The Chi-Square Statistic	17.1-17.5
Oct. 12	No Class - Thanksgiving	
Oct. 19*	Term Test 1 - 120 minutes worth 15%	
Oct. 26	Introduction to ANOVA	12.1-12.5
Nov. 2	Post-hoc Testing & Kruskal-Wallis	12.6-12.7 & 20
Nov. 9*	Repeated Measures ANOVA & Friedman (<i>drop deadline</i>)	13 & 20
Nov. 16*	Two-Factor ANOVA	14
Nov. 23*	Term Test 2 – 120 minutes worth 25%	
Nov. 30	Correlation (Pearson & Spearman; not Point Biserial or Phi)	15
Dec. 7*	Regression	16.1-16.2

* Online assignment due today at 5pm

*Assignments: Complete the problem sets on MindTap for the following chapters: 10, 11, 17, 12, 13, 14 & 15. **There are additional problem sets for the non-parametric tests from chapter 20, which are due at the same time as their parametric counterparts (Chapters 10-13).** No late marks or extensions given for technical difficulties.*

Optional Activities: There are practice multiple choice questions on MindTap for each chapter, and additional un-assigned online problem sets.

There will be a review session scheduled by the TA before each term test, as well as a cumulative review in December before our final. Please stay posted for these dates/times. ☺

IMPORTANT COURSE INFORMATION FOR STUDENTS

Academic Honesty and Integrity

York students are required to maintain the highest standards of academic honesty and they are subject to the Senate Policy on Academic Honesty (<http://www.yorku.ca/secretariat/policies/document.php?document=69>). The policy affirms the responsibility of faculty members to foster acceptable standards of academic conduct and of the student to abide by such standards. Students are expected to review the materials on the Academic Integrity website (<http://www.yorku.ca/academicintegrity>)

Access/Disability

York University is committed to principles of respect, inclusion and equality of all persons with disabilities across campus. The University provides services for students with disabilities (including physical, medical, learning and mental health disabilities) needing accommodation related to teaching and evaluation methods/materials. These services are made available to students in all Faculties and programs at York University.

Students in need of these services are asked to register with disability services as early as possible to ensure that appropriate accommodation can be provided with advance notice. You are encouraged to schedule a time early in the term to meet with the Course Instructor to discuss your accommodation needs. Please note that registering with disability services and discussing your needs with your professors is necessary to avoid any impediment to receiving the necessary academic accommodations to meet your needs. We are committed to maintaining a “disability friendly” classroom. Please let us know how we can best meet your individual needs; we are always available to listen 😊

Additional information is available at the following websites:

Counselling & Disability Services – <http://www.yorku.ca/disabilityservices>
Counselling & Disability Services Glendon – <http://www.glendon.yorku.ca/counselling>
York Accessibility Hub – <http://www.yorku.ca/accessibilityhub/index.htm>

Holly is a peer-mentor at Mental Health Counselling & Disability Services. If you have accommodations, you are encouraged to schedule a private meeting with her to discuss your needs. Please ask her about accommodations if you think you may require them. Feel free to discuss mental health issues in confidence with your TA & instructor.

Religious Observance Accommodation

York University is committed to respecting the religious beliefs and practices of all members of the community, and making accommodations for observances of special

significance to adherents. Should any of the dates specified in this syllabus for an in-class test or examination pose such a conflict for you, contact the Course Director within the first three weeks of class. Similarly, should an assignment to be completed at home, scheduled later in the term pose such a conflict, contact the Course Director immediately. Please note that to arrange an alternative date or time for an examination scheduled in the formal examination period in December, students must complete an Examination Accommodation Form, which can be obtained from Student Client Services, Student Services Centre, or online at http://www.registrar.yorku.ca/pdf/exam_accommodation.pdf

Student Conduct in Academic Situations

Students and instructors are expected to maintain a professional relationship characterized by courtesy and mutual respect. Moreover, it is the responsibility of the instructor to maintain an appropriate academic atmosphere in the classroom and other academic settings, and the responsibility of the student to cooperate in the endeavour. Further, the instructor is the best person to decide, in the first instance, whether such an atmosphere is present in the class. The policy and procedures governing disruptive and/or harassing behaviour by students in academic situations is available at <http://www.yorku.ca/secretariat/policies/document.php?document=82>

York University Grading Scheme

Grade	Grade Point	Per Cent Range	Description
A+	9	90-100	Exceptional
A	8	80-89	Excellent
B+	7	75-79	Very Good
B	6	70-74	Good
C+	5	65-69	Competent
C	4	60-64	Fairly Competent
D+	3	55-59	Passing
D	2	50-54	Marginally Passing
E	1	(marginally below 50%)	Marginally Failing
F	0	(below 50%)	Failing