

# Psychology 3XE3: Inferential Statistics

**Instructor:** Dr. Brett Beston ([bestonbr@mcmaster.ca](mailto:bestonbr@mcmaster.ca))  
**Classes** Tuesday's and Thursday's. Please note - Tests will take place during Monday's scheduled class time.  
**Tutorials** Thursday  
**Office Hours:** Will be posted on AtL

## Textbook and Software:

Howell, D. C.: Fundamental Statistics for the Behavioral Sciences (Just about any edition will do. Any problems that I recommend are based on the 7th edition/).

### Companion website for the textbook:

<http://www.uvm.edu/~dhowell/fundamentals/index.html>

There are important links on this web site, including links to detailed explanations of practice questions from the textbook.

### Required access to university technology centres:

Lab assignments require PASW (or SPSS), which is installed in the computer labs. Register for Technology Centre services by getting a MAC ID via MUGSI ([http://www.mcmaster.ca/uts/mugsi\\_reg.htm](http://www.mcmaster.ca/uts/mugsi_reg.htm)) if you have not already done so. Registering gives you full access to the labs, an email account, and web space among other services. Student Consultants are available for general help in using the Technology Centres. For more information, visit the Student Frequently Asked Questions page (<http://www.mcmaster.ca/uts/students/faqs.htm>).

## Course Evaluation:

Evaluation breakdown		
<b>Term tests</b>	Test 1 (May 23rd)	25%
	Test 2 (June 4th)	25%
<b>Assignments</b>	Weekly assignments	10% (lowest assignment dropped)
<b>Final examination</b>	June 13th	40%

There will be weekly assignments for this course. **The lowest assignment grade will be dropped.** Some will require PASW (SPSS) analysis and output as well as step by step work with a calculator. You will receive an assignment every week and will be required to electronically submit your assignment on Avenue to Learn (AtL) by the end of that week (no later than Friday at 11:30pm). Each student will receive an individual data set and you will be required to upload your data set with each assignment. **Submissions MUST include your data set and will not be graded if it is not included. Late submissions will not be accepted, and will receive a grade of zero.** Since the lowest grade will be dropped, missed assignments due to medical illness will still receive a grade of zero.

There will be **two mid-terms** and **one exam**. There are no make-up exams. If any exam does not take place on the scheduled date due to weather, facilities, or other unforeseen circumstance, it will take place at the beginning of the next scheduled class. **Please see the table above for test dates.** The tests will cover lecture material and assigned textbook material equally, and will cover material from throughout the course (cumulative), though the final exam will have an emphasis on material covered since the midterm. The format of the exams will be discussed in class. You may bring only an approved calculator, pencils and erasers suitable for multiple-choice scan sheets, and your McMaster student ID card to the exams. An approved calculator is any calculator whose name starts with Casio fx991. Sheets with formulae and statistical tables will be supplied for you.

## Course Policies:

Details of the course requirements may change. If it becomes necessary to make changes to some part of the course during the term, reasonable notice and communication will be provided between the students and lecturer. Updates will be discussed in class and will be posted on the class web page.

The instructor reserves the right to scale the final marks up or down depending on an individual's overall performance based on special circumstances.

## Scaling:

A+ = 90-100	B+ = 77-79	C+ = 67-69	D+ = 57-59	F = 0-49
A = 85-89	B = 73-76	C = 63-66	D = 53-56	
A- = 80-84	B- = 70-72	C- = 60-62	D- = 50-52	

\*Final marks may be adjusted up or down on an individual basis, in light of special circumstances and or the student's overall performance in the course.

## e-mail Policy:

- **e-mails must originate** from your designated **McMaster** e-mail account.
- **Please include** the course code "**3XE3**" in the **subject heading**.
- If we (your professor or TA) need to contact you, we will send the e-mail to your mcmaster.ca account. You should monitor this account regularly.
- e-mails sent from third-party providers (yahoo, hotmail, cogeco, sympatico, etc.) are likely to be missed. We have this policy for three reasons: (1) to reduce the amount of incoming spam to our accounts; (2) to ensure that we know with whom we are communicating; and (3) to teach the professional use of e-mail. Remember: E-mails to your professors are professional communications.
- Please do your best to use correct spelling and punctuation, be polite, and to the point.

## Academic Integrity

You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity.

Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behaviour can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension or expulsion from the university.

It is your responsibility to understand what constitutes academic dishonesty. For information on the various types of academic dishonesty please refer to the Academic Integrity Policy, located at <http://www.mcmaster.ca/academicintegrity>

## Schedule of Tentative Topics and Test Dates

Topics	Lecture Topic	Chapters
1	Review	
2	Dependent samples t-tests Independent samples t-tests	13, 14
3	Review of T-tests and working with Power	15
4	ANOVA, one-way	16
5	ANOVA, a priori and post-hoc comparisons	16
6	Factorial ANOVA	17
7	Repeated-Measures ANOVA	18
8	Chi-Squared	19
9	Non-Parametric tests	20
10	Choosing the appropriate Analysis	21
11	Research Design	Extra