

THE UNIVERSITY OF WINNIPEG
WINNIPEG MANITOBA
Department of Psychology

Psychology PSYC-2101 – Fall 2017
An Introduction to Data Analysis

Calendar description

(3 hrs Lecture | 3 hrs Lab) This lab course introduces basic data analytic techniques appropriate to experimental and non-experimental research designs. Topics include frequency distributions, descriptive statistics (e.g., mean, standard deviations), and inferential statistics (e.g., estimation and hypothesis testing for means, correlation and count data). The lab component provides an opportunity to develop computational and basic computer skills relevant to data analysis. This course is required for Majors and Honours students in Psychology. Restrictions: Students may not hold credit for this course and STAT-1201, STAT-1301, STAT-1401, STAT-1501. Requisite Courses: PSYC-1000 [prerequisite(s)]; PSYC-2101L (lab) (must be taken concurrently).

Course Information

Dr. P. M. Pearson
4L04B, 786-9853, p.pearson@uwinnipeg.ca
Office Hours: Drop-in (anytime) or by appointment(Call or e-mail to schedule)
Time & Location of Lectures: Tuesdays & Thursdays 8:30-9:45 in 1L11

Required Materials

1. Text - Pagano, R. R. (2013). Understanding statistics in the behavioral sciences (10th ed.). CA: Wadsworth.
2. Apla Access Card

Learning Outcomes

Upon the successful completion of this course, the student is expected to be able determine and calculate the appropriate statistical analysis given a research question and information about the data collected.

Evaluation

Grades will be based upon assignments in the laboratory, weekly Apla assignments, a midterm test and a final exam. The term test and the final examination will have a mixture of multiple choice and/or short answer format. The final exam will be held during the final examination period and it will cover the entire course, although more emphasis will be placed on topics covered since the term test. Students are permitted to use calculators in tests and exams but all work must be shown. Students may be asked to provide identification at tests/exams.

The weighting in determining your final mark will be as follows:

- Term test 35%
- Final exam 45%
- Apla Assignments 10%
- Lab 10% (see outline for lab for more details) **Labs start Sept 5, 2017**

Policy Regarding Missed Tests/Illness

A grade of 0 will be given for any test that a student fails to write. Students are entitled to a rescheduling of exams or an extension of deadlines for legitimate medical or compassionate reasons (illness, physical disability, domestic affliction, or religious holidays). However, it is the student's responsibility to inform the instructor prior to the date of the examination, when possible, to arrange a timely makeup, and, if requested, to provide acceptable documentation to support a medical or compassionate claim. In the event of an emergency that the student could not inform the instructor of prior to the date of the examination, the student should contact the instructor as soon as possible. In the case of a final examination, the procedure is outlined in the Academic Regulations and Policies in section VII of the General Calendar. Students should familiarize themselves with these regulations and policies. Students should be aware the make-up tests may be of a different format than those administered in class.

If you feel that you have a medical or personal problem that is interfering with your work, you should contact your instructor and a counselor at Student Services as soon as possible. Problems may then be documented and possible arrangements to assist you can be discussed at the time of occurrence. In general, retroactive requests for grade revisions on medical or compassionate grounds will not be considered.

Policy on Cheating and Academic Misconduct

Students are responsible for understanding the nature of and avoiding the occurrence of plagiarism, cheating and other academic offenses. Students are encouraged to read the section on Academic Misconduct in the General Calendar. If you are in doubt about whether what you are doing is inappropriate, consult your instructor.

<http://uwinnipeg.ca/academics/calendar/docs/regulationsandpolicies.pdf>

Grade Distribution/Cutoffs

A+ at the instructor's discretion

A 85+

A- 80-84

B+ 75-79

B 70-74

C+ 65-69

C 60-64

D 50-59

F less than 50

These cutoffs are tentative and may be changed in either direction by i) the instructor, ii) the Departmental review Committee, or iii) the Senate, when circumstances warrant.

Procedures for Appealing Academic Evaluations

In the first instance, all appeals of a grade must be made to the course instructor (informal consultation) within seven working days after notification of the grade. If the student is not satisfied with the decision of the course instructor, the student may wish to consider making a written appeal to the Chair of the Departmental Review Committee. Please consult the Academic Regulations and Policies Section of the General Calendar for information about appeals.

<http://uwinnipeg.ca/academics/calendar/docs/regulationsandpolicies.pdf> A guide to appeals is available from Student Services and the UWSA Office.

Services for Students with Disabilities

Students with documented disabilities, temporary or chronic medical conditions, requiring academic accommodations for tests/exams (e.g., private space) or during lectures/laboratories (e.g., note-takers) are encouraged to contact Accessibility Services (AS) at 786-9771 or accessibilityservices@uwinnipeg.ca to discuss appropriate options. All information about a student's disability or medical condition remains confidential

<http://www.uwinnipeg.ca/accessibility> .

Additional University Policies

We ask that you please be respectful of the needs of classmates and instructors/professors by avoiding the use of unnecessary scented products while attending lectures. Exposure to scented products can trigger serious health reactions in persons with asthma, allergies, migraines or chemical sensitivities. Please consider using unscented necessary products and avoiding unnecessary products that are scented (e.g. perfume).

Undergraduate students who plan to conduct minimal-risk research interviews, focus groups, surveys, or any other method of collecting data from any person, even a family member, must obtain the approval of the Departmental Ethics Committee before commencing data collection. (For greater-than-minimal-risk or Graduate student studies, approval of the UHREB is also required.) Exceptions are research activities in class as a learning exercise. See <http://uwinnipeg.ca/research/human-ethics.html> for submission requirements and deadlines."

All students, faculty and staff have the right to participate, learn and work in an environment that is free of harassment and discrimination. The UW Respectful Working and Learning Environment Policy may be found online at www.uwinnipeg.ca/respect .

Students may choose not to attend classes or write examinations on holy days of their religion, but they must notify their instructors at least two weeks in advance. Instructors will then provide opportunity for students to make-up work and/or examinations without penalty. A list of religious holidays can be found at:

<http://uwinnipeg.ca/academics/calendar/docs/important-notes.pdf> .

Tentative Lecture Schedule

This schedule is given as a guideline of the topics to be covered. Topics may not be covered on the exact dates shown and some topics may not be covered at all.

Week of	Topic (tentative schedule)	Chapters/Pages
Sept 4	Introduction	1-4 (omit p 55-61, Practice Problem 4.3)
Sept 11	Standard Scores & Normal Curve	5
Sept 18	Random Sampling & Probability	8
Sept 25	Binomial Distribution	9 (omit p 229-230)
Oct 2	Hypothesis Testing Using the Sign Test	10
<i>Oct 9-35</i>	<i>Reading Week – No classes</i>	
	Term Test (Oct 17)	1-4, 5, 8, & 9
Oct 16	Chi-Square Test	p 482-497
Oct 23	Sampling Distribution of the Mean	12 (omit p 317-323)
Oct 30	Student's T-test for single samples	13 (omit p 346-348)
	Student's T-test for correlated & indep.	14
<i>Nov 10</i>	<i>Withdrawal Deadline</i>	
Nov 6	Introduction to ANOVA	15 (omit p 420-434)
Nov 13	Introduction to ANOVA	16 (omit p 450-481)
Nov 20	Correlation	6 (omit p 139-142)
	Linear regression	7 (omit p 169-171 & 174-178)
Nov 27	Testing the Significance of Pearson r	p 346-348
	Review	p 527-544
	Final Exam – Consult Examination Schedule	