



Department of Psychology
Psychology 411 (L01) – Design and Analysis in Psychological Research
Fall 2011 – Course Outline

Instructor:	Dr. Susan D. Boon	Lecture Location:	A253
Phone:	403-220-5564	Lecture Days/Time:	MWF 13:00 – 13:50
Email:	sdboon@ucalgary.ca	Lab:	B01 T 9:00 – 10:50 B02 R 11:00 – 12:50
Office:	A231B	Lab location:	SS018
Office Hours:	TBA	Teaching Assistant:	K. E. Sheppard
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Course Description and Goals

Experimental design problems and techniques for analysis of psychological data.

Prerequisites

Psyc 312—Experimental Design and Quantitative Methods

Required Text

No required text. **Set of required handouts available for purchase from the Psychology Undergraduate Students' Association (PSYCHS) in Admin. 170.** Additional, supplementary (optional) readings are available for photocopying (at your cost) from PSYCHS if you feel a need to have reference materials. An up-to-date PSYCHS membership will be required to borrow these readings for copying purposes.

Evaluation

Course Component	Weighting	Date
Midterm exam #1	25%	October 17, 2011
Midterm exam #2	25%	November 9, 2011
Final exam	25%	To be scheduled by registrar
Laboratory	25% (5% each)	Five equally-weighted written assignments due throughout term. See Lab Schedule below for descriptions.

Exams

Exams will consist of both **short answer** and **computation questions**, with the considerable emphasis on short answer questions. The first midterm (October 17) will cover the material up to and including simultaneous multiple regression. The second midterm (Nov. 9) will cover hierarchical regression, ANOVA, and planned comparisons. The final exam (to be scheduled by

the registrar) will be **cumulative** and therefore cover **all** course material. **NOTE:** You will not be graded on the quality of your writing. However, if I can't understand your answer because of awkward language, grammatical errors, and so forth, my inability to understand your answer will necessarily affect your grade in a negative fashion.

The use of calculators is permitted for computational questions on the exams. However, you will be graded on your work. Accordingly, **if you fail to show your work, you will receive a 0 for the question (i.e., for the computation component of the question) even if the final answer is correct.**

The use of computers is not permitted for exams in this course. Exam answers must be written in the exam booklets provided during the exam.

No study aids will be permitted during exams for this course, apart from those that may be provided by the instructor during the exam.

Laboratory

Students must achieve a passing grade on both the class and lab components to pass this course. Lab assignments must be handed in at the beginning of the lab on which the due date falls (see the Lab Schedule below). Under exceptional circumstances (e.g., illness), other arrangements may be made at the discretion of the Teaching Assistant. Late lab assignments will not be accepted, except under exceptional circumstances and at the discretion of the Teaching Assistant with the approval of the Instructor. Lab assignments submitted electronically will not be accepted.

Grading Scale

A+	96-100%	B+	80-84%	C+	67-71%	D+	54-58%
A	90-95%	B	76-79%	C	63-66%	D	50-53%
A-	85-89%	B-	72-75%	C-	59-62%	F	0-49%

As stated in the University Calendar, it is at the instructor's discretion to round off either upward or downward to determine a final grade when the average of term work and final examinations is between two letter grades. To determine final letter grades, final percentage grades will be rounded up or down to the nearest whole percentage (e.g., 89.5% will be rounded up to 90% = A but 89.4% will be rounded down to 89% = A-).

Tentative Lecture Schedule

Date	Topic/Activity/Readings/Due Date	Supplemental Reading (optional)
Sep 12 - 16	Lectures begin. Introduction and overview. Review of GLM basics	Ch. 2 Pedhazur
Sep 19 - 23	Introduction to regression analysis	Ch. 3 Pedhazur
F Sep 23	Last day to drop a course with no W grade and tuition refund.	
M Sep 26	Last day for registration/change of registration.	

Sep 26 - 30	Regression analysis cont'd	
Oct 3 - 7	Regression analysis cont'd	
M Oct 10	Thanksgiving Day. No lecture. University closed.	
Oct 12 - 14	Regression analysis cont'd	
M Oct 17	Midterm exam #1	to end of simultaneous multiple regression
Oct 19 - 21	Regression analysis cont'd	
Oct 24 - 28	ANOVA	
Oct 31 – Nov 4	ANOVA cont'd	
Nov 7	Planned comparisons	
W Nov 9	Midterm exam #2	hierarichal regression to end of planned comparisons
F Nov 11	Reading days. Remembrance Day. No lecture.	
Nov 14 - 18	Mixed model regression	
Nov 21 - 25	Mixed model regression cont'd ANCOVA	Ch. 15 Pedhazur
Nov 28 – Dec 2	Multivariate Analysis of Variance (MANOVA)	Ch. 15 Diekhoff
Dec 5 - 9	Discriminant Function Analysis Exam review.	Ch. 14 Diekhoff
F Dec 9	Last day to participate in research and allocate research credits.	
F Dec 9	Lecture ends. Last day to withdraw.	

Tentative Laboratory Schedule

Week of	Topic	Assignments and due dates
Sep 12 - 16	No labs this week	
Sep 19 - 23	Lab orientation and Linear regression	Receive Assignment 1 (linear regression)
Sep 26 - 30	No labs.	
Oct 3 - 7	Multiple Regression	Receive Assignment 2 (multiple regression)
Oct 10 – 14	Multiple regression cont'd; Exam review, time permitting	Assignment 1 due
Oct 17 – 21	No labs. Exam week (midterm #1).	
Oct 24 – 28	ANOVA and planned comparisons	Receive Assignment 3 (ANOVA) Assignment 2 due
Oct 31 – Nov 4	Exam review	
Nov 7 - 11	No labs this week. Exam (midterm #2) and Reading Days	Assignment 3 due
Nov 14 - 18	Mixed model regression	Receive Assignment 4 (MMR)

Nov 21-25	Mixed model regression cont'd	
Nov 28 -Dec 2	Multivariate Analysis of Variance (MANOVA)	Receive Assignment 5 (MANOVA)
Dec 5 - 9	Discriminant Function Analysis Exam review, time permitting	Assignments 4 and 5 due

Reappraisal of Grades

A student who feels that a piece of graded term work (e.g., term paper, essay, test) has been unfairly graded, may have the work re-graded as follows. The student shall discuss the work with the instructor within 15 days of being notified about the mark or of the item's return to the class. If not satisfied, the student shall immediately take the matter to the Head of the department offering the course, who will arrange for a reassessment of the work within the next 15 days. The reappraisal of term work may cause the grade to be raised, lowered, or to remain the same. If the student is not satisfied with the decision and wishes to appeal, the student shall address a letter of appeal to the Dean of the faculty offering the course within 15 days of the unfavourable decision. In the letter, the student must clearly and fully state the decision being appealed, the grounds for appeal, and the remedies being sought, along with any special circumstances that warrant an appeal of the reappraisal. The student should include as much written documentation as possible.

Plagiarism and Other Academic Misconduct

Intellectual honesty is the cornerstone of the development and acquisition of knowledge and requires that the contribution of others be acknowledged. Consequently, plagiarism or cheating on any assignment is regarded as an extremely serious academic offense. Plagiarism involves submitting or presenting work in a course as if it were the student's own work done expressly for that particular course when, in fact, it is not. Students should examine sections of the University Calendar that present a Statement of Intellectual honesty and definitions and penalties associated with Plagiarism/Cheating/Other Academic Misconduct.

Academic Accommodation

It is the student's responsibility to request academic accommodations. If you are a student with a documented disability who may require academic accommodation and have not registered with the Disability Resource Centre, please contact their office at 403-220-8237. Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation. You are also required to discuss your needs with your instructor no later than 14 days after the start of this course.

Absence From A Test/Exam

Makeup tests/exams are NOT an option without an official University medical excuse (see the University Calendar). A completed Physician/Counselor Statement will be required to confirm absence from a test/exam for health reasons; the student will be required to pay any cost associated with this Statement. Students who miss a test/exam have 48 hours to contact the instructor and to schedule a makeup test/exam. Students who do not schedule a makeup test/exam with the instructor within this 48-hour period forfeit the right to a makeup test/exam. At the instructor's discretion, a makeup test/exam may differ significantly (in form and/or content) from a regularly scheduled test/exam. Except in extenuating circumstances

(documented by an official University medical excuse), a makeup test/exam must be written within 2 weeks of the missed test/exam.

Freedom of Information and Protection of Privacy (FOIP) Act

The FOIP legislation disallows the practice of having student's retrieve tests and assignments from a public place. Therefore, tests and assignments may be returned to students during class/lab, or during office hours, or via the Department Office (Admin 275), or will be made available only for viewing during exam review sessions scheduled by the Department. Tests and assignments will be shredded after one year. Instructors should take care to not link students' names with their grades, UCIDs, or other FOIP-sensitive information.

Course Credits for Research Participation (Max 2% of final grade)

Students in most psychology courses are eligible to participate in Departmentally approved research and earn credits toward their final grades. **A maximum of two credits (2%) per course, including this course, may be applied to the student's final grade. Students earn 0.5% (0.5 credits) for each full 30 minutes of participation.** The demand for timeslots may exceed the supply in a given term. Thus, students are not guaranteed that there will be enough studies available to them to meet their credit requirements. Students should seek studies early in the term and should frequently check for open timeslots. Students can create an account and participate in Departmentally approved research studies at <http://ucalgary.sona-systems.com>. The last day to participate in studies and to assign or reassign earned credits to courses is **Dec 9th, 2011**.

Evacuation Assembly Point

In case of an emergency evacuation during class, students must gather at the designated assembly point nearest to the classroom. The list of assembly points is found at

<http://www.ucalgary.ca/emergencyplan/assemblypoints>

Please check this website and note the nearest assembly point for this course.

Student Organizations

Psychology students may wish to join the Psychology Undergraduate Students' Association (PSYCHS). They are located in Administration 170 and may be contacted at 403-220-5567.

Student Union VP Academic: Phone: 403-220-3911 suvpaca@ucalgary.ca

Student Union Faculty Rep.: Phone: 403-220-3913 socialscirep@su.ucalgary.ca

Important Dates

The last day to drop this course with no "W" notation and **still receive a tuition fee refund** is **Sep 23rd, 2011**. Last day for registration/change of registration is **Sep 26th, 2011**. The last day to withdraw from this course is **Dec 9th, 2011**.