

# DEPARTMENT OF PSYCHOLOGY Faculty of Arts

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PSYC 411	Design and Analy	sis in Psychological Research	Spring 2013
Instructor:	Dr. K. Edwin Sheppard	Lecture Location:	SA 121
Phone:	403-220-8970	Lecture Days/Time:	M/W/F: 12:30-14:20
Email:	kesheppa@ucalgary.ca	Lab:	R/T: 12:00-15:30
Office:	A 157A	Teaching Assistant:	TBA
Office Hours:	TBA	TA Office:	TBA
		TA Email:	TBA

## **Course Description and Goals**

Experimental design problems and techniques for analysis of psychological data.

# **Prerequisites**

PSYC 200 - Principles of Psychology I

PSYC 201 - Principles of Psychology II

PSYC 312 - Experimental Design and Quantitative Methods for Psychology

#### **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 own 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**

<b>Course Component</b>	Weighting	Date	
Midterm Exam #1	25%	Wednesday May 29, 2013	
Midterm Exam #2	25%	Wednesday June 12, 2013	
Final Exam	25%	To be scheduled by registrar	
Laboratory 25%		Five equally-weighted written assignments due	
	(5% each)	throughout the term. See lab schedule below for descriptions.	

# Exams (25% each):

Exams will consist of both short answer and computation questions, with the considerable emphasis on short answer questions. The first midterm (**DATE**) will cover the material up to and including the end of simultaneous multiple regression. The second midterm (**DATE**) 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.

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 (25%):

Students must achieve a passing grade in both the class and the 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 conditions (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%
Α	90-95%	В	76-79%	С	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	Supplemental Reading
		(optional)
W May	Spring Term Lecture begins.	Ch. 2. Pedhauzer
15		
	Introduction and overview. Review of GLM basics.	
F May	Introduction to Regression analysis	Ch. 3. Pedhauzer
17		

W May Regression analysis continued 22	
22	
I makedom form the till to	
Last day for registration/change of re	egistration and
last day to drop a course with tuition	refund.
F May Regression analysis continued	
24	
Fee payment deadline.	
M May Regression analysis continued	
27	
W May Exam #1	Material from May 15-May27:
29	Introduction to end of simultaneous
	multiple regression
F May Regression analysis continued	
31	
M June ANOVA	
3	
W June ANOVA continued	
5	
F June 7 ANOVA continued	
M June ANOVA continued	
10	
Planned comparisons	
W June Exam #2	Material from <b>May 31 – June 10</b> :
12	Hierarchical regression to end of
12	planned comparisons
F June Mixed Model Regression	planned compansons
14	
M June   Mixed Model Regression continued	
17	
W June ANCOVA	Ch, 15 Pedhauzer
19	, i
Multivariate Analysis of Variance (N	//ANOVA)Ch. 15
Diekhoff	
F June MANOVA continued	
21	
M June MANOVA continued	Ch. 14 Diekhoff
24	
Discriminant Function Analysis	

W June	Discriminant Function Analysis continued	
26		
	Exam Review	
	Spring Term Lectures End. Last day to withdraw from	
	full session Spring Term courses.	
June	Final exam dates for full session Spring Term courses.	
27-29		

#### **Tentative Lab Schedule:**

Date	Topic	Assignments and Due Dates
T May	No lab	
14		
R May	Lab Orientation / Linear Regression	Receive Assignment 1 (Linear
16 / T		Regression)
May 21		
R May	Multiple Regression / Exam Review (time permitting)	Receive Assignment 2
23 / T		(Multiple Regression)
May 28		Assignment 1 Due
R May	ANOVA / planned comparisons	Receive Assignment 3
30 / T		(ANOVA)
June 4		Assignment 2 Due
R June	Mixed Model Regression / Exam Review (time permitting)	Receive Assignment 4 (MMR)
6/T		Assignment 3 Due
June 11		
R June	Multivariate Analysis of Variance	Receive Assignment 5
13 / T		(MANOVA)
June 18		Assignment 4 Due
R June	Discriminant Function Analysis / Exam Review	Assignment 5 Due
20 / T		
June 25		

# **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; no reappraisal of term work is permitted after the 15 days. 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.

# **Travel During Exams**

Consistent with University regulations, students are expected to be available to write scheduled exams at any time during the official December and April examination periods. Requests to write a make-up exam because of conflicting travel plans (e.g., flight bookings) will NOT be considered except under exceptional circumstances. Students are advised to wait until the final examination schedule is posted before making any travel arrangements.

# 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 (2) 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 <a href="http://ucalgary.sona-systems.com">http://ucalgary.sona-systems.com</a>. The last day to participate in studies and to assign or reassign earned credits to courses is June 26<sup>th</sup>, 2013.

## **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 <a href="http://www.ucalgary.ca/emergencyplan/assemblypoints">http://www.ucalgary.ca/emergencyplan/assemblypoints</a>

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 <u>suvpaca@ucalgary.ca</u>

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

## **Important Dates**

The last day to drop this course with no "W" notation and still receive a tuition fee refund the last day for registration/change of registration is May 22, 2013. The last day to withdraw from this course is June 26, 2013.