



UNIVERSITY OF  
CALGARY

**Department of Psychology**

**Psychology 617 (L01) – Advanced Research Design and Analysis II  
Winter Session 2009**

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<b>Instructor:</b>	Dr. Theresa Kline	<b>Lecture Location:</b>	Administration A 253
<b>Phone:</b>	(403) 220-3469	<b>Lecture Days/Time:</b>	M/W 10:00 – 11:15
<b>Email:</b>	Babbitt@ucalgary.ca	<b>Lab Day/Time:</b>	F 9:00 – 11:50
<b>Office:</b>	Administration 135B	<b>Lab Location</b>	SS 018 - Tri-Faculty Computer Lab
<b>Office Hours:</b>	To Be Announced		

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**Course Description and Goals**

Multivariate techniques and design issues, including canonical correlation, discriminant analysis, multiple regression, principal components analysis and factor analysis, structural equation modeling.

**Required Text**

Tabachnick, B.G. & Fidell, L.S. (2007). Using Multivariate Statistics (5th ed.). Boston: Allyn and Bacon.

This text is available at the U of C Bookstore.

A package of class notes is also required for this course and is available for purchase at the Psychology Office (A 275).

**Suggested References (Specific chapters are available for photocopying):**

Diekhoff, G. (1992). Statistics for the Social and Behavioral Sciences: Univariate, Bivariate, Multivariate. Dubuque, IA: Wm. C. Brown.

Pedhazur, E.J. (1997). Multiple Regression in Behavioral Research (3rd. ed.). Fort Worth, TX: Harcourt, Brace, College Publishers.

**Evaluation**

Distribution of Credit for Final Grade:

First Exam:	25%
Second Exam:	25%
Third Exam:	25%
Lab Assignments:	25% (grade will be based on 5 assignments)

Examinations are problem-solving and short essay-type formats.

Laboratory assignment format is covered in the lab outline.

## 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 to the nearest whole percentage (e.g., 89.4% will be rounded up to 90%).

## Lecture Schedule

<u>Topic</u>	<u>Reading</u>	<u>Week</u>
1. Review of Correlation and Regression (EMPHASIS ON <b>REVIEW!</b> )	<i>Pedhazur - Ch. 2,5,7</i> <i>Diefkhoff - Ch. 12</i> Ch. 5	Jan. 12
2. Discriminant Function Analysis	Ch. 9	Jan. 19
3. Logistic Regression	Ch. 10 <i>Pedhazur - Ch. 17</i>	Jan. 26
EXAM 1 (about Feb. 11)		
4. Multi-way Frequency Analysis	Ch. 16	Feb. 9
READING WEEK		
5. Canonical Correlation	Ch. 12	Feb. 23
6. Multi-Dimensional Scaling	<i>Diekhoff - Ch. 18</i>	Mar. 2
EXAM 2 (non-cumulative, about Mar. 18)		
7. Principal Components Analysis	Ch. 13	Mar. 16
Mar 21 (Good Friday – no lab)		
8. "Exploratory" Factor Analysis	Ch. 13	Mar. 23
9. Structural Equation Modeling	<i>Pedhazur - Ch. 18</i> Ch. 14	Mar. 33 April 6 April 13
Lectures end April 15		
EXAM 3 (non-cumulative, open book <b>April 22</b> , 9:00 a.m. – 12:00 noon)		

## Reappraisal of Grades

A student who feels that a piece of graded term work (term paper, essay, test, etc.) has been unfairly graded may have the work re-graded as follows. The student shall discuss the work with the instructor within fifteen 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 fifteen 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 fifteen 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 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 fourteen (14) days after the start of this course.

### **Absence From A Test**

Make-up exams are NOT an option without an official University medical excuse (see the University Calendar). You must contact the instructor before the scheduled examination or you will have forfeited any right to make up the exam. At the instructor's discretion, a make-up exam may differ significantly (in form and/or content) from a regularly scheduled exam. Except in extenuating circumstances (documented by an official University medical excuse), a makeup exam is written within two (2) weeks of the missed exam.

A completed Physician/Counselor Statement will be required to confirm absence from a test for health reasons. The student will be required to pay any cost associated with the Physician Counselor Statement.

### **Important Dates**

The last day to drop this course and **still receive a fee refund** is January 23, 2009. The last day to withdraw from this course is April 17, 2009.