



Psychology 617

Advanced Research Design and Analysis II

Instructor:	Theresa Kline	Lecture Location:	Administration 248
Phone:	403-220-3269	Lecture Days/Time:	M/W: 12:30-13:45
Email:	babbitt@ucalgary.ca	Lab Day/Time:	F 14:00-17:00
Office:	Administration 135B	Lab Location:	SS 018
Office Hours:	To Be Arranged		

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.

Prerequisites Psyc 615 – Advanced Research Design and Analysis I, or consent of the Department

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. They are non-cumulative.

Calculators are permitted to be used on all exams. The final exam will also be open book/open note. 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% = A but 89.4%).

Date	Topic/Activity/Readings/
M Jan 9	Lecture begins. Correlation Pedhazur Ch. 2,5,7 Deikhoff Ch. 5, 12
W Jan 11	Correlation and regression Pedhazur Ch. 2,5,7 Deikhoff Ch. 5, 12
F Jan 13	Lab - correlation
M Jan 16	Correlation and regression Pedhazur Ch. 2,5,7 Deikhoff Ch. 5, 12
W Jan 18	Correlation and regression Pedhazur Ch. 2,5,7 Deikhoff Ch. 5, 12
F Jan 20	Lab - regression Last day to drop a course with tuition refund.
M Jan 23	Discriminant Function Analysis Tabachnik & Fidell Ch. 9 Last day for registration/change of registration.
W Jan 25	Discriminant Function Analysis Tabachnik & Fidell Ch. 9
F Jan 27	Lab – Discriminant Function Analysis
M Jan 30	Logistic Regression Tabachnik & Fidell Ch. 10 Pedhazur Ch. 17
W Feb 1	Logistic Regression

	Tabachnik & Fidell Ch. 10 Pedhazur Ch. 17
F Feb 3	Lab – Logistic Regression
M Feb 6	Logistic Regression Tabachnik & Fidell Ch. 10 Pedhazur Ch. 17
W Feb 8	Exam 1
F Feb 10	No lab
M Feb 13	Multiway Frequency Analysis Tabachnick & Fidell Ch. 16
W Feb 15	Multiway Frequency Analysis Tabachnick & Fidell Ch. 16
F Feb 17	Lab – Multiway Frequency Analysis
M Feb 20	Alberta Family Day. No lecture.
W Feb 22	Reading days. No lecture.
F Feb 24	Reading days. No lecture.
M Feb 27	Multiway Frequency Analysis Tabachnick & Fidell Ch. 16
W Feb 29	Canonical Correlation Tabachnick & Fidell Ch. 12
F Mar 2	Lab – Canonical Correlation
M Mar 5	Multi-Dimensional Scaling Diekhoff Ch. 18
W Mar 7	Multi-Dimensional Scaling Diekhoff Ch. 18
F Mar 9	Lab - Multi-Dimensional Scaling
M Mar 12	Principal Components Analysis Tabachnick & Fidell Ch. 13
W Mar 14	Exam 2
F Mar 16	No lab
M Mar 19	Principal Components Analysis Tabachnick & Fidell Ch. 13
W Mar 21	Common Factor Analysis Tabachnick & Fidell Ch. 13
F Mar 23	Lab - Principal Components and Common Factor Analyses
M Mar 26	Confirmatory Factor Analysis Tabachnick & Fidell Ch. 14 Pedhazur Ch. 18
W Mar 28	Confirmatory Factor Analysis Tabachnick & Fidell Ch. 14 Pedhazur Ch. 18

F Mar 30	Lab – Confirmatory Factor Analysis
M Apr 2	Structural Equation Modeling Tabachnick & Fidell Ch. 14 Pedhazur Ch. 18
W Apr 4	Structural Equation Modeling Tabachnick & Fidell Ch. 14 Pedhazur Ch. 18
F Apr 6	Good Friday. No lecture.
M Apr 9	Structural Equation Modeling Tabachnick & Fidell Ch. 14 Pedhazur Ch. 18
W Apr 11	Structural Equation Modeling Tabachnick & Fidell Ch. 14 Pedhazur Ch. 18
F Apr 13	Lab – SEM Lectures ends. Last day to withdraw.
W Apr 18	Exam 3 Open book 9:00 a.m. – 12:00 noon

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

Students who miss a term test due to a valid and documented official University reason (illness, domestic affliction, or religious conviction) have 48 hours to contact AND schedule a makeup test with the instructor. The onus is on the student to have a makeup test approved and scheduled within 48 hours, or the makeup test option is forfeited. The same process applies to missed makeup tests. At the instructor's discretion, the makeup test may differ significantly in form and/or content from the missed test. However, the makeup test cannot differ in weight (% of final grade) from the missed test. Except in extenuating circumstances (a documented official University medical excuse), a makeup test must be written within 2 weeks of the missed test. Absence from a final exam, and deferral of a final exam, are handled by Enrolment Services (see http://www.ucalgary.ca/registrar/deferred_final). Students absent from a final exam must notify the instructor within 48 hours and must then apply for an official deferred final exam no later than the deadline indicated in the Examinations Schedule.

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.

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 Ombudsman's Office

The Office of the Student Ombuds provides independent, impartial and confidential support for students who require assistance and advice in addressing issues and concerns related to their academic careers. The office can be reached at 403-220-6420 or ombuds@ucalgary.ca (<http://www.su.ucalgary.ca/services/student-services/student-rights.html>).

Safewalk

The safewalk program provides volunteers to walk students safely to their destination anywhere on campus. This service is free and available 24 hrs/day, 365 days a year.

Call 403-220-5333.

Important Dates

The last day to drop this course and **still receive a tuition fee refund** is **Jan 20, 2012**. Last day for registration/change of registration is **Jan 23, 2012**. The last day to withdraw from this course is **Apr 13, 2012**.