



Psychology 615 (L01)

Advanced Research Design & Analysis I

<b>Instructor:</b>	Charles (Chip) Scialfa	<b>Lecture Location:</b>	A051
<b>Phone:</b>	403-220-4951	<b>Lecture Days/Time:</b>	MW 9:00-10:15
<b>Email:</b>	scialfa@ucalgary.ca	<b>Lab Location:</b>	SS 018
<b>Office:</b>	A251D	<b>Lab Days/Time:</b>	F 12:00 – 14:50
<b>Office Hours:</b>	TBA		
<b>TA:</b>	Aiden Arnold		

**Course Description and Goals**

Applications of the general linear model to research design and analysis. Topics include analysis of variance, regression and analysis of covariance.

**Required Text**

Maxwell, S.E. & Delaney, H.D. (2004). Designing experiments and analyzing data: A model comparison perspective, 2nd Ed. Mahwah, NJ: Lawrence Erlbaum Associates.

**Evaluation**

There will be one mid-term and one final exam, specific dates to be decided after consulting with the class. The mid-term exam will be in class. The final exam will be over a 1-day (9 am to 5 pm period). They will each be a combination of true-false, short answer and computational questions. Each will count 33% of your final mark. The remainder of your final mark will come from the lab component.

**Lab Assignments**

During the semester you will receive 9 laboratory assignments. Your final grade will be a composite score out of 80 with all assignments equally weighted but the lowest score dropped. All assignments should be handed in on or before the due date, either during the scheduled lab session or at the Psychology Department Main Office (A275) before 12:00 pm on the due date. Make sure that your TA's name is clearly written on your assignment so it can be placed in the correct mailbox. Please note: **Late assignments will not be marked.**

### 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.

Date	Topic/Activity/Readings/Due Date	Chapter	Lecture Notes
M Sep 10	Fall Session lectures begin Logic of Experimental Design	1,2	1,2
W Sep 12	Logic of Experimental Design		
F Sep 14	<b>Lab - SPSS Intro: Data Coding and Descriptive Stats</b>	Assignment due: <b>September 21</b>	
M Sep 17	Logic of Experimental Design	2,3	2, 3.1
W Sep 19	Logic of Experimental Design		
F Sep 21	<b>Lab – Plotting Data</b> Last day to drop a course with no W grade and tuition refund.	Assignment due: <b>September 28</b>	
M Sep 24	One-Way Between-Subjects Designs Last day for registration/change of registration.	3	3.1, 3.2
W Sep 26	One-Way Between-Subjects Designs		
F Sep 28	<b>Lab - One-way B/S ANOVA</b>	Assignment due: <b>October 5</b>	
M Oct 1	One-Way Between-Subjects Designs		
W Oct 3	One-Way BS Designs		
F Oct 5	<b>Lab - Orthogonality and Multiple Comparisons</b>	Assignment due: <b>October 19</b>	
M Oct 8	Thanksgiving Day. No lecture. University closed.		
W Oct 10	Individual Means Comparisons	4	4
F Oct 12	<b>NO LAB</b>		
M Oct 15	Individual Means Comparisons		
W Oct 17	Multiple Comparisons	5	5
F Oct 19	<b>LAB REVIEW</b>	Assignment due: <b>October 26</b>	

M Oct 22	Trend Analysis	6	6
W Oct 24	Trend Analysis		
F Oct 26	<b>Lab - Trend Analysis</b>	<b>No Assignment</b>	
M Oct 29	Test 1	1-6	Test 1
W Oct 31	Two-Way Between-Subjects Designs	7	7.1, 7.2
F Nov 2	<b>Lab – Factorial BS Designs and Simple Effects</b>	Assignment due: <b>November 16</b>	
M Nov 5	Two-Way Between Subjects Designs		
W Nov 7	Higher-Order BS Designs	8	8
F Nov 9	Reading days. No lecture.		
M Nov 12	ANCOVA	9	9.1
W Nov 14	ANCOVA	9	9.2
F Nov 16	<b>Lab - ANCOVA and ANCOHET</b>	Assignment due: <b>November 23</b>	
M Nov 19	ANCOHET		
W Nov 21	One-Way Within-Subjects Designs	11	10
F Nov 23	<b>Lab - One-way WS ANOVA</b>	Assignment due: <b>November 30</b>	
M Nov 26	One-Way and Higher-Order WS Designs	12	12
W Nov 28	Higher-Order WS Designs	12	12
F Nov 30	<b>Lab - Higher Order WS ANOVA – Univariate</b>	Assignment due: <b>December 7</b>	
M Dec 3	Higher-Order WS Designs	12	12
W Dec 5	Review		
F Dec 7	<b>Lab - Question and answer session</b> Lecture ends. Last day to withdraw.		
Dec 10-19	Final Exam to be Scheduled with Class		

### 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.

### **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.

**Important Dates**

The last day to drop this course with no “W” notation and **still receive a tuition fee refund** is **September 21, 2012**. Last day for registration/change of registration is **September 24, 2012**. The last day to withdraw from this course is **December 7, 2012**.