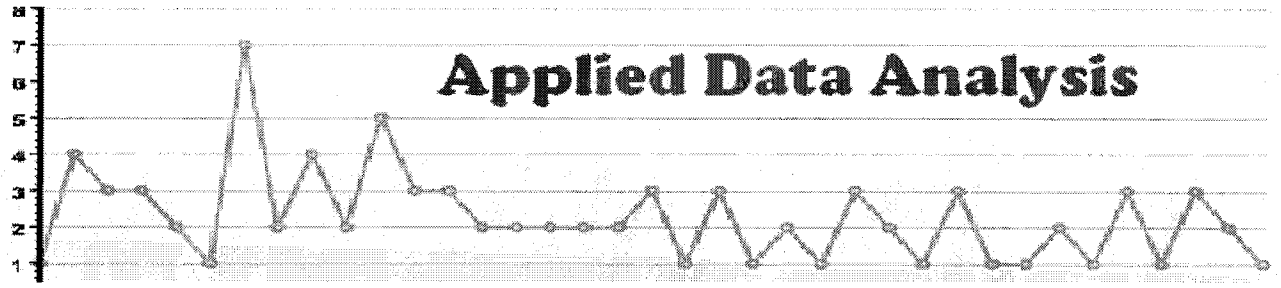
Psychology 412--Winter 2009



Tues/Thurs, 4:00-5:20 in 142 Straub Hall, Lab Fri 9:00-9:50 in 180 Straub

Instructor	Office	E-mail	Office Hours
Jessica Tipsord	358 Straub	jtipsord@uoregon.edu *office phone: 346 4924	Tuesdays 2-3 pm Wednesdays 3-4
Caitlin Mahy	408 Straub	cmahy@uoregon.edu *office phone: 346 4852	Tuesday 3-4 pm Thursday 10-11 am

**Please note that email is the BEST way to contact us!*

Class Blackboard site: http://blackboard.uoregon.edu/

Course Goals:

This course is designed to sharpen your quantitative and analytical reasoning skills. It should improve your ability to identify patterns in data, relate these patterns to substantive issues about the topic under investigation, and communicate your results and your interpretation in writing. By the end of the course you should be able to:

1. Generate a plan for data analysis that is appropriate to your research questions and the structure of the data
2. Execute your data analysis plan using statistical software
3. Understand and summarize the results of the statistical tests
4. Interpret the results in light of your research questions
5. Clearly communicate what you did, what you think the results mean, and why

Course Description:

We will cover the concepts and methods of descriptive and inferential statistics at an intermediate level with a focus on correlation and regression as the underlying statistical machinery. Topics include ANOVA, ANCOVA, several varieties of regression, log-linear models & logistic regression. By the end of the course, you will have some level of understanding of each of these methods. The level will vary across topics, which is fine; ***statistical training is a lifelong process***! We will treat you as colleagues in training and see our roles as guides, coaches, and fellow travelers. The course is designed to be both difficult and rewarding. You will not understand everything, and that is okay! We are still learning, too ☺

Learning Adjustments: Contact Jessica right away if you have special needs (confirmed by the Academic Learning Center) that may require adjustments for you to learn/understand the material effectively. Disability Services web site: http://ds.uoregon.edu/.

Class Requirements and Activities:

1. Reading Responses. The primary text is Judd, C.M., McClelland, G.H., & Ryan, C.R. (2009). *Data Analysis: A Model Comparison Approach* (2nd edition), which is also used in some graduate-level statistics course. Supplemental readings will be available as PDFs via the course Blackboard site. You will submit weekly reading responses on Blackboard by **Tuesdays at 10:30am** (except week 1 in which your response is due by Thursday at 11am). You will write **a brief response** to the readings for the week, summarizing what you see as the "key points" and noting what you find interesting or confusing. Your response should be between 1/3 and 1/2 of a page. Write the response entirely on your own, though you are free to discuss the readings with one other before doing so. You should write your responses in a word processing program and then cut and paste into Blackboard. This way if something happens with Blackboard or your internet connection you will not lose your work. If a technical problem does arise, you should send an email to the instructor and Blackboard can be re-set to allow you to enter your answers

2. Participation. Missing class may leave you confused, and missing lab will make it VERY difficult to complete the homework correctly. Do not expect the instructors to repeat material they already presented in class; office hours are best used for review and discussion of material after doing the reading and attending lecture, and for help with homework. Slides from lecture will be posted on Blackboard, and you might also arrange to share notes with a classmate. If you have to miss a class, you are still responsible for turning homework in on time.

3. Homework. Homework is assigned on Thursday evening (including the first week and not including week 8), and is due one hour before class **(3:00 PM)** on **the following Thursday.** Submit to **Caitlin** as an email attachment in **MSWord (1998-2003) or RTF format.** Homework documents should **not contain your name** in ANY format. Please use your **STUDENT ID** to mark an exam as yours. This allows our grading to remain objective. Homework and exams containing your name will not be accepted and may be considered late. The UO server timestamps all email, so sending homework from your UO account is the best way to ensure that the submission time is correctly reflected. **Late homework will lose 10% per week day (M-F) for the first week and will not be accepted if more than a week overdue.**

Homework will consist of questions that require you to apply your conceptual knowledge of statistics to data, present the results clearly, and interpret the results based on your findings. Crunching numbers is of limited use if you cannot present and interpret your results clearly. The homework will typically require the use of a **computer program (e.g., SPSS)** to complete it. SPSS is available on all the computers in the two Straub computer labs (180 and 181). The lab is open Monday through Thursday from 8am to 9pm and on Fridays from 8am to 5pm. Classes have first priority on access to the computers in 180, so check the schedule on the door. All written work should follow **APA 5th Edition style.**
You may work with other classmates currently enrolled in the class to complete the problem set, but nobody else. Further, the entire homework assignment must be written and produced by you; you may not copy any other student's words, tables, or statistical output! Answer keys will not be provided, but common mistakes will be discussed in class or lab.

Writing Skills: Strunk & White's *The Elements of Style* can help you write concise, precise sentences to communicate scientific information. Review the eight elementary rules of usage and the ten elementary principles of composition at http://www.bartleby.com/141/. Consult the *Publication Manual of the American Psychological Association* (5th ed) for APA style in reporting statistical results.

4. Midterm. The midterm will focus on conceptual issues. However, you will also be shown statistical output and expected to answer questions about it. **The midterm will be in-class on Tuesday, Feb. 3rd.**

5. Final. The take-home final exam will include: (a) conceptual questions about different techniques (e.g., assumptions, associated problems), (b) "generate a plan" questions that ask you how you would analyze a data set, and (c) statistical analysis and interpretation of one or more data sets (following the format established by the homework).

Weighting of assignments for course grade

Homework:	50% (8 total)
Reading Responses:	10% (10 total)
Midterm:	15% (in class Feb. 3rd)
Final exam:	25% (take-home)

Cheating, if detected, will earn **a failing grade** in the course. The University may impose additional penalties in accordance with the student conduct code. Don't do it! Cheating = turning in the work of others as your own (e.g., copying others' statistical output instead of generating it yourself or copying others' words in your homework). **For the final,** copying someone else's exam OR providing or asking for help from *other students in the class* = cheating. See below for legitimate input on the final.

What is NOT cheating? Collaborative learning; that is, getting or providing help on the **homework**. Meeting to compare notes on homework (in person or on Blackboard) can help everyone do well. However, don't just copy what someone else has done—complete the homework yourself. **For the final:** It is fine to have someone ***outside the class*** read a draft of your final to see if it is clearly written. When writing academic papers, scholars should get feedback from colleagues before submitting the final product to a journal ☺

Class Etiquette & Norms

Come to class on time, and stay for the whole class or lab
If you must miss a class or leave early, let us know so we don't wait for you or worry about you
Treat your fellow students and your instructors with respect
Turn the ringer off on your cell phone during class
Ask questions and speak up during class
Ask questions on Blackboard site

Guidelines for Teaching and Learning:

Guidelines developed by the Undergraduate Education Committee (UEC) of the psychology department are available online at http://psychweb.uoregon.edu/guidelines/index.htm

Tentative Course Schedule:

Please note that this is tentative! I may change the dates for topics and assignments.

	Assigned Reading **there may be parts of the chapter that we do not cover!*	**Topic(s):**	**Assignments**
Tuesday Jan. 6	**Chapter 1 & 2**	Syllabus, Intro, Descriptive Stats	
Thursday Jan. 8	**Chapter 3 ***	Review 302 concepts Inferential Stats and t-test	Complete first reading response (RR) on BB by 11am!
Tuesday Jan. 13	**Chapter 4**	More t-test	RR2 due by 10:30am
Thursday Jan. 15		Covariance, Correlation	HW 1 due by 3pm
Tuesday Jan. 20	**Chapter 5**	Standardization; univariate regression	RR3 due by 10:30am
Thursday Jan 22			HW 2 due by 3pm
Tuesday Jan 27	**Chapter 6**	Regression with multiple continuous predictors	RR4 due by 10:30am
Thursday Jan. 29	**Chapter 7***	Moderated Regression	HW 3 due Thurs. by 3pm
Tuesday Feb 3.		**Midterm Exam in class!**	RR5 due by 10:30am
Thursday Feb 5	**Chapter 7***	Interactions of continuous predictors	HW 4 due by 3pm
Tuesday Feb 10	**Chapter 8**	Categories and dummy coding; ANOVA	RR6 due by 10:30am
Thursday Feb 12		Contrast coding	HW 5 due by 3pm
Tuesday Feb 17	**Chapter 9**	Multiple categorical predictors	RR7 due by 10:30am
Thursday Feb 19		Multiple categorical predictors and their interactions	HW 6 due by 3pm
Tuesday Feb 24	**Chapter 10**	Continuous and Categorical Interactions	RR8 due by 10:30am
Thursday Feb 26		ANCOVA	HW 7 due by 3pm
Tuesday Mar 3	**Chapter 11**	Repeated Measures—Models with Nonindependent errors	RR9 due by 10:30am
Thursday Mar 5			HW 8 due by 3pm
Tuesday Mar 10	**Chapter 12**	Continuous predictors with Nonindependent Observations	RR10 due by 10:30am
Thursday Mar 12		Review	
FINAL TAKE HOME EXAM Due Monday March 16, 2009 at 1 PM!			