Data Analysis II
Psy 612
CRN 25649
Winter 2013
1000-1120 TR
Straub 146

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Office Hours: T 1415-1615 & by appt.

Laboratory
180 Straub CRN: 25650, 25651
F 10-1120; 1130-1250

Course Information

This is the second course in a three-course graduate level data analysis sequence. This course is devoted to topics in multiple regression with special emphasis on complex analysis of variance and experimental design. We assume that all students have successfully completed Psy 611 (Data Analysis I) or equivalent. In general, the text chapters listed in the syllabus cover the material planned for class on the day that they are assigned. This material provides more depth and often alternate explanations of some of the issues.

Inclement Weather Policy
If Eugene School District 4J cancels (not delays) school, we will cancel class. Nothing we do in this class can’t wait until it is safe to travel.
Texts:


Class notes available on Blackboard

Other Useful Books:

Analysis of Variance & Experimental Design


Multiple Regression & Related Issues


Conducting Empirical Research


Class Requirements:
Complete take-home midterm examination (35% of grade), final examination (50% of grade), and weekly homework assignments (15%) of grade. Responses to all homework and examination problems should follow standard reporting formats; see the Guidelines handout for examples. Homework will be assigned and due each Thursday. Homework should be uploaded to BlackBoard by 1000 on the Thursday that it is due. The laboratory section may have additional assignments.
Syllabus

Introduction to the General Linear Model

1/8  Linear Regression
1/10 Regression Diagnostics
1/15 Basic Multiple Regression
1/17 Partitioning variance
1/22 Regression with categorical variables
1/24 Nonlinear relations
1/29 Analysis of interactions
1/31 Analysis of covariance

Complex Analysis of Variance

2/5  Representation of Experimental Designs
2/7  Factorial Analysis of Variance
2/12 Random Factor Models & Quasi-F's
2/14 Nested Designs
2/19 Repeated Measures and Randomized Blocks
2/21

Midterm Out

Advanced Topics

2/26 Multicollinearity
2/28 Missing Data and Nonorthogonal Designs
3/5  Heteroscedasticity
3/7  Autocorrelation
3/12 Categorical Dependent variables
3/14 Repeated Measures ANCOVA
3/22 FINAL DUE 8:00 AM

Final Out