

Clin Psych 427
Research Methods II
Course Syllabus
Winter Quarter, 2007
Wednesday, January 3 – Friday, March 16, 2007

Schedule: Tuesdays 9:00 to 12:00 am, lectures in Abbott Hall Room 1225; SPSS lab and homework review 1x per week with TA to be scheduled at first session (most likely on Friday).

Lecturer: Zoran Martinovich, PhD
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TA: Jesse Klein
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Office Hours: By appointment, before or after class. TA: By appointment.

Class Format: 1 lecture each week. Take home quiz every 2 or 3 weeks. Homework assignments throughout (worked answers are provided).

Prerequisite: Either PH 302 Intro to Biostatistics or Clin Psych 426 Research Methods I or equivalent are required.

Enrollment: Limit of 10 students

Course Objectives

By the end of this class, students should be able to:

- * Describe the purpose, use, and theory underlying multi-factor univariate linear models
- * Independently conduct appropriate inferential tests of basic research hypotheses involving 2-factor ANOVA designs, regression models, and 1-way ANCOVA models.
- * Determine appropriate subject sample sizes for linear model comparisons.
- * Conduct these analyses both with and without the aid of a statistics program (SPSS).

Student Evaluation

Performance evaluation will be made throughout the course via frequent homework assignments and take-home examinations.

Student Grading

Grading will be based on attendance/participation in class activities and take-home exams distributed at class sessions every other Tuesday. Attendance/participation in class activities is required to pass; otherwise, grading is entirely based on equally weighted take-home exams. Take-home exams are due by 5pm Monday after the test is distributed (exams will be returned and discussed on the following morning) or by 10pm Monday (if sent as a pdf¹ to my e-mail address). There is no final exam.

Texts

Primary Recommended Text:

Keppel, G. (1991). Design and analysis: a researcher's handbook (3rd ed.). Englewood Cliffs, NJ: Prentice Hall.

Supplemental Recommended Texts:

Judd, C. M., and McClelland, G. H. (1989). Data analysis: A model comparison approach. San Diego: Harcourt, Brace, Jovanovich

Cohen, J. and Cohen, P. (1983). Applied multiple regression/correlation analysis for the behavioral sciences (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.

Tabachnik, B.G. & Fidell, L.S. (2007). Using multivariate statistics. Boston: Pearson/Allyn & Bacon.

Neter, J., Kutner, M.H., Nachtsheim, C. J., and Wasserman, W. (1996). Applied Linear Statistical Models. Chicago: McGraw-Hill.

Topics and Dates

1/9 ² :	Factorial between subject ANOVA models
1/16:	Repeated measures and mixed models; Quiz

1/23:	Regression and prediction - simple linear models
1/30:	Multiple regression – additive models; power analysis
2/6:	MR; Partial r^2 , semipartial r^2 , and multiple R^2 ; Quiz

2/13:	MR: Interactive models; centering constants
2/20:	MR: Polynomial models and centering constants, Quiz

2/27:	Categorical predictors: ANCOVA models;
3/6:	Logistic Regression; Quiz

3/12-3/16:	Finals Week
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¹ Pdf scans of tests are preferred, if possible.

² No lecture on 1/2. Winter quarter classes begin 1/3.