PSYCH 710-01 Multivariate Methods in Psychology

Course Overview:
The aim of this course is to present up-to-date developments in methodology and statistics that would be germane to clinical and experimental neuropsychologists in their research endeavors. The focus of the class is in identifying objectively how models of brain-behavior relationships can be tested instead of debated. All issues discussed in this course will have elements of the kind of scientific methodology that can produce lasting advances. If the strength of our profession comes from its strong empirical base, as consumers of psychology, we should question ourselves constantly whether our methods are the best possible ones.

Texts*/Readings Required:
- SPSS-X. *User's guide* (3rd ed.). Spss Inc.: Chicago (Or appropriate reference materials, if available)

*Note:
- The books have not been ordered for the Drexel bookstore. Texts can be ordered on-line, via links posted on the course web site.
- You will need access to SPSS software.

Topical Outline:
- Introduction to Multivariate Statistics: Review of general statistical concepts
- Parametric and Non-parametric Analysis
- T-test, ANOVA, ANCOVA, MANOVA
- Simple Regression
- Multiple Regression
- Discriminant Analyses
- Factor Analyses

Grading Criteria:
- Homeworks (pass-fail) 20%
- Mid-term & Final, 40% each

A number of Pass-Fail homework assignments will be given during the quarter involving statistical analysis, and analysis write-ups.

Instructor:
ATTENDANCE POLICY: This is an upper-level graduate-level course focusing on applied statistical operations and research methodology. Attendance is mandatory. In the event of an absence, you are responsible for any material you miss in class and any homework assignments. Exams are applied, cumulative, and based on material covered in class and on homeworks; absence from more than two classes may result in a lowering of your final grade by one full grade level.

ACADEMIC HONESTY: Much of the work in this course is take-home. Students are expected to act professionally and participate in collegial discussions. However, each student is responsible for submitting unique, independent work. Students who are caught cheating on any examination or assignment will be reported to the Department Head and Provost of the College and appropriate action taken. Please make sure that you are familiar with your University’s Academic Honesty Policy.

Examples of statistical procedures and Write-ups:


Texts/Readings Recommended (to be made available):


SPSS-X. Advanced statistical guide (2nd ed.). Chicago: Spss Inc.
