

MULTIVARIATE METHODS

Psychology 595

Spring, 2012

Instructor: Dr. Paul Boxer, Associate Professor of Psychology
Office: Smith Hall 333
Office Hours: Thursdays, 11:30-12:30 and by appointment
Contact: pboxer@psychology.rutgers.edu

Classroom: Smith Hall 371
Meeting times: Tuesdays/Thursdays, 10:00 – 11:20 am
Text: *Using Multivariate Statistics* (5th edition, 2007)
BG Tabachnik and LS Fidell

Course description:

This course covers basic issues in the conceptualization, execution, and application of multivariate methods of statistical analysis. The course assumes prior coursework in univariate statistics and general behavioral research methodology.

Course objectives:

1. Students will be able to conceptualize and execute a broad array of multivariate statistical techniques and apply that knowledge to answering research questions in psychology or closely related disciplines.
2. Students will develop and be able to demonstrate competence in using SPSS or other software to conduct those statistical techniques.
3. Students will be able to describe statistics in the context of written reports of psychological research.
4. Students will demonstrate verbal competence in teaching about the use of statistics.

Course requirements:

Class attendance and participation are expected. You are expected to be an engaged participant in any in-class group discussions and activities. You are responsible for all assigned readings and out-of-class assignments.

The instructor makes use of the Blackboard online course management system (<http://blackboard.newark.rutgers.edu>) for reading assignments and handling out-of-class assignments. If you are not familiar with the operation of Blackboard you are responsible for becoming familiar with it, and can request assistance from the instructor if need be.

Evaluation in this course will be based on the following:

1. Rotating presentations: Except where noted in the calendar below, each week one student will present a selected empirical article to the class highlighting the statistical method studied that week. The format of the presentation is open, but the following goals should be met:
 - a. The theory behind the study should be described in detail.
 - b. The data collection and statistical methodology of the paper should be described in detail.
 - c. The connection among the theory, data collection, and statistical method should be described in detail.
 - d. An electronic version of the paper selected by the student must be emailed to me (pboxer@psychology) one day prior to class so that it can be posted to Blackboard.

2. Homework: Most weeks, homework will be assigned based on topics studied during the week. Homework will typically be assigned on Thursdays and due in class on Tuesdays. No late submissions will be accepted except in cases of documented family or personal emergency.

3. Group project write-up and presentation: Students will complete a data analysis project in small groups. Groups will present their work during the last few class periods, and a group paper will be due on the second-to-last day of class. Details on the project will be presented in a separate document.

4. End-of-semester take-home exam: Students will complete a take-home exam covering much of the material presented during the semester.

The breakdown of your final grade will be as follows:

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|---------------------------|----------|
| Rotating presentation: | 10% |
| Homework: | 30% |
| Group project: | 25% |
| Take-home exam: | 25% |
| Participation/engagement: | 10% |
| TOTAL: | 100% |

Course policies:

Academic integrity is fundamental to the process of learning and evaluating academic performance. The instructor maintains a zero tolerance approach to academic dishonesty. Academic dishonesty includes but is not limited to the following: cheating, plagiarism, tampering with academic records and examinations, falsifying identity, and being an accessory to acts of academic dishonesty. Any instances of academic dishonesty will be handled in accordance with the policies and procedures of Rutgers University.

The instructor reserves the right to modify this syllabus with adequate notice.