

Advanced Modeling I: Topics in Multivariate Analysis -- E10.2004
Spring, 2009

Instructors:

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Office Hours: Thursdays, 1:00pm to 3:00pm

Class Meeting Time/Room: Tuesdays, 3:30 pm to 6:10 pm in Room TBD.

Lab Section Meeting Times: Attendance at the lab section is strongly encouraged. The section meets Tuesdays from 6:20 pm to 7:30 pm. The lab provides SPSS demonstrations of what is discussed in class and hands-on guidance for homework assignments.

Course Goals: This two-credit module-type course, which meets for the first seven weeks of the Spring semester, extends the material covered in E10.2003 by examining some of the more advanced topics in multivariate data analysis for the behavioral, social, and health sciences that are prerequisite to continuing the study of quantitative methods at NYU. The topics to be covered are logistic regression, multivariate analysis of variance, repeated measures analysis of variance, and an introduction to hierarchical linear modeling. The software package, SPSS version 16, is used to give students hands-on experience with topics covered. In so doing, the course provides foundational skills and knowledge critical to those graduate students whose research relies on the analysis of quantitative data.

Course Orientation: This course provides a conceptually oriented, nonmathematical approach to learning applied statistics. It is not appropriate for students seeking to learn the mathematical theory underlying these advanced techniques.

Prerequisites: E10.2003 or the equivalent.

Website: The course uses Blackboard for posting announcements, lecture notes, handouts, readings, homework, and so on.

Text: The course lecture notes serve as the primary text for the course, however, readings are also assigned in *Using Multivariate Statistics (5th edition)* by Tabachnick & Fidell. This book is available in the NYU Book Store.

Course Requirements & Grading:

Supplementary Readings: As posted on the Blackboard website.

Homework: Practicing what has been covered in class is essential to learning statistics. Homework will be assigned, collected, and graded each week. All students are responsible for completing all homework assignments on time and raising questions related to the homework in class and in lab.

Grading:

10%	Class attendance and participation
90%	Computer- and data-based homework problem sets

Syllabus:

<i>E10.2004 Syllabus – Advanced Modeling I: Topics in Multivariate Analysis</i>		
<i>Month</i>	<i>Day</i>	<i>Topic</i>
January	20	Logistic Regression
	27	Logistic Regression
February	3	Multivariate Analysis of Variance
	10	Repeated Measures Analysis of Variance
	17	Repeated Measures Analysis of Variance
	24	Hierarchical Linear Modeling: Nested Designs
March	3	Hierarchical Linear Modeling: Modeling Change