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Office: Kimball Hall, 246 Greene Street, 316E
Office Hours: Tuesdays, 10:00am to noon and by appointment

TA: Leslie D. Williams
Email: leslie.williams@nyu.edu
Office: Kimball Hall, 246 Greene Street, 415E (directly across from receptionist’s desk)
Office Hours: Mondays, 1:30 to 3:00pm

Class Meeting Time/Room:
Tuesdays, 3:30 pm to 6:10 pm in Tisch, LC19

Lab Section Meeting Times:
Tuesdays, 6:20 pm to 7:35 pm in Tisch, LC19

Although optional, attendance in the lab section is strongly encouraged. The lab provides software demonstrations of what is discussed in class, and hands-on guidance for homework assignments.

Course Goals:
This seven-week module-type course 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. The topics to be covered are multivariate analysis of variance, repeated measures analysis of variance, path analysis, principal component analysis, exploratory factor analysis, and structural equations modeling. The software packages, SPSS and AMOS, are used to give students hands-on experience with analyzing data using the methods covered in class. In so doing, the course provides 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 the methods covered in class. It is not appropriate for students seeking to learn the mathematical theory underlying these methods.

Prerequisites:
E10.2003 or the equivalent.

Website:
The course uses Blackboard for posting lecture notes, handouts, readings, homework assignments, and general information.

Text:
The course lecture notes serve as the primary text for the course, however, you may also wish to purchase as a reference and guide: 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 related questions in class.

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

Syllabus:

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<tr>
<th>Month</th>
<th>Day</th>
<th>Topic</th>
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<tbody>
<tr>
<td>January</td>
<td>25</td>
<td>Multivariate Analysis of Variance; Repeated Measures Analysis of Variance (Lecture Notes #1A, #1B)</td>
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<tr>
<td>February</td>
<td>01</td>
<td>Repeated Measures Analysis of Variance -- Intro to MLM (Lecture Notes #1C, #2)</td>
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<td>08</td>
<td>Structural Equation Modeling -- The Path Analysis Model -- (Lecture Notes #3)</td>
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<td>15</td>
<td>Data Reduction: Principal Component Analysis (Lecture Notes #4)</td>
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<td>22</td>
<td>Latent Constructs: Exploratory Factor Analysis (Lecture Notes #5)</td>
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<td>March</td>
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<td>Structural Equation Modeling -- The Confirmatory Factor Analysis Model (Lecture Notes #6)</td>
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<td>08</td>
<td>Structural Equation Modeling -- The Hybrid Model (Lecture Notes #7)</td>
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