I. COURSE DESCRIPTION

This course builds on the research foundation and multivariate statistics courses by extending the focus to various quantitative methods that are increasingly being used by Social Work researchers. The topics include advanced multiple regression and path analysis, logistic regression, multiple analysis of variance and analysis of covariance.

II. COURSE OBJECTIVES

1. Students will evidence proficiency in using a data set for secondary analysis.
2. Students will demonstrate proficiency in appropriately applying the following quantitative methods;
   a. Describing quantitative data;
   b. Advanced multiple regression analysis with interaction effects;
c. Logistic regression;
d. Multivariate analysis of variance
e. Analysis of covariance

3. Students will demonstrate the ability to produce a scholarly research paper using one or more of the above quantitative methods.

III. COURSE ASSIGNMENTS

1. Students will complete 4 exercises utilizing the quantitative methods listed above.
2. Students will produce a scholarly paper suitable for journal publication.

IV. REQUIRED TEXTBOOKS


V. RECOMMENDED READINGS


VI. GRADING POLICY

The University grading system will be followed (see policy in the CUA Announcements). The grades will be based on the extent to which the student meets the course objectives as demonstrated by performance on the assignments and the final paper.

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points Each</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Assignments</td>
<td>10</td>
<td>40%</td>
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<tr>
<td>Final Paper</td>
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<td>50%</td>
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<tr>
<td>Class Presentation</td>
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<td>10%</td>
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VII. ASSIGNMENT DUE DATES

1. Descriptive Analysis          Class 4  9/22/15
2. Multiple Regression Analysis  Class 7  10/13/15
3. Logistic Regression           Class 10 11/3/15
4. MANOVA or ANCOVA              Class 12  4/25/13
5. Scholarly Paper               Class 12  12/14/15
VIII. COURSE AND INSTRUCTOR EVALUATION

NCSSS requires written evaluation of all course and instructors. Forms for this purpose will be distributed at the last meeting of the class. Students are required to complete the form and submit it to the Office of the Dean.

IX. CLASS EXPECTATIONS

1. Scholastic Expectations

Please refer to NCSSS Announcements or the PhD Program Handbook for Academic Requirements, including scholastic and behavioral requirements. All written work should reflect the original thinking of the writer, cite references where material is quoted or adapted from existing sources, adhere to APA format, and should be carefully proof read by the student before submission to the instructor for grading.

2. Academic Honesty

Joining the community of scholars at CUA entails accepting the standards, living by those standards, and upholding them. Please refer to University Policy and appropriate Program Handbooks.

3. Accommodations

Students with physical, learning, psychological or other disabilities wishing to request accommodations must identify with the Disability Support Services (DSS) http://disabilityservices.cua.edu/ and submit documentation of a disability. If you have documented such a disability to DSS that requires accommodations or an academic adjustment, please arrange a meeting with the instructor as soon as possible to discuss these accommodations.

X. COURSE SCHEDULE

**Class 1**
Introduction to the Course
Overview of the Alcohol and Drug Services Study (ADS)

**Class 2**
An Introduction to Multivariate Design
Research Design Concepts
Data Screening

Meyers, Gamst & Guarino: Chapters 1, 2, & 3
Class 3  Describing Quantitative Data
Data Screening using IBM SPSS
Meyers, Gamst & Guarino: Chapter 4

Class 4  Correlation and Regression
Multiple Regression Analysis
Meyers, Gamst and Guarino: Chapters 6A, 6B, 7A

Class 5  Applying Multiple Regression Analysis
Meyers, Gamst and Guarino Chapter 7B

Class 6  Hierarchical Linear Regression
Mediation and Moderation
Path Analysis
Meyers, Gamst and Guarino: Chapters 8A, 8B & 17A

Class 7  Binary and Multinomial Logistic Regression
Meyers, Gamst and Guarino: Chapter 10A

Class 8  Applying Logistic Regression
Meyers, Gamst and Guarino: Chapter 10B

Class 9  Univariate and Multiple Analysis of Variance
Meyers, Gamst and Guarino: Chapters 4A, 4B, 5A

Class 10  Applying Multiple Analyses of Variance
Meyers, Gamst and Guarino: Chapter 5B

Class 11  Multilevel Modeling
Meyers, Gamst and Guarino: Chapter 9A

Class 12  Applying Multilevel Modeling
Meyers, Gamst and Guarino: Chapter 9B
Class 13  Student Presentations
Class 14  Student Presentations