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, log-linear models and multilevel modeling.

II. COURSE OBJECTIVES

1. Students will evidence proficiency in using a large 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. Path analysis;
d. Logistic regression;
e. Multivariate analysis of variance
f. 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 5 exercises utilizing each of 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.

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<tr>
<th>Component</th>
<th>Points</th>
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<tr>
<td>Assignments</td>
<td>10 points each</td>
<td>40%</td>
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<tr>
<td>Final Paper</td>
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<td>Class Presentation</td>
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VII. 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.
VIII. 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.

IX. COURSE SCHEDULE

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

Class 2
Review of Statistical Concepts and Data Screening
Meyers, Gamst and Guarino pp. 1-106
Spicer pp 1-88.

Class 3
Describing Quantitative Data

Class 4
Advanced Multiple Regression Analysis
Meyers, Gamst and Guarino pp. 107–195
Spicer pp. 91-122
<table>
<thead>
<tr>
<th>Class</th>
<th>Topic</th>
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<tr>
<td>5</td>
<td>Applying Multiple Regression Analysis</td>
<td>Meyers, Gamst and Guarino pp. 197-220</td>
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<tr>
<td>6</td>
<td>Path Analysis</td>
<td>Meyers, Gamst and Guarino pp. 585-602</td>
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<td>7</td>
<td>Logistic Regression</td>
<td>Meyers, Gamst and Guarino pp. 221-242 Spicer pp. 123-139</td>
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<td>8</td>
<td>Applying Logistic Regression</td>
<td>Meyers, Gamst and Guarino pp. 243-25</td>
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<td>9</td>
<td>Multiple Analysis of Variance</td>
<td>Meyers, Gamst and Guarino pp. 279-412</td>
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<td>10</td>
<td>Applying Multiple Analysis of Variance</td>
<td>Meyers, Gamst and Guarino pp. 415-463</td>
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<td>11</td>
<td>Analysis of Covariance</td>
<td>Class Handout</td>
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<td>12</td>
<td>Applying Analysis of Covariance</td>
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<td>13</td>
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