Course Description and Learning Objectives

This course is concerned with practical methods of quantitative analysis and the ways of presenting quantitative results using anthropological data. We will focus on how to analyze your data and on how to present your results using computer-aided graphics. We will discuss what techniques work with different kinds of data sets and different research designs. We will also explore how to present the results of those analyses in black and white for publication and in color for conference presentations. Finally we will discuss how to evaluate quantitative techniques used in recent anthropological publications.

There will be regular short assignments (see the schedule below). There are 12 assignments and I will drop the lowest one. You will also work on a small project using your own data or data that will be similar to the data you plan to collect. Use several of the methods discussed in the course and describe your results in a short paper (8-10 pages). During the final exam period, you will briefly (10 minutes) present your analysis to the class.

Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Reading</th>
<th>Assignment</th>
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</thead>
<tbody>
<tr>
<td>Aug 30</td>
<td>Introduction, Research and Data</td>
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<tr>
<td>Sep 1</td>
<td>Basic R, R Commander</td>
<td>Getting R, Using R for Data Analysis and Graphics</td>
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<tr>
<td>Sep 6</td>
<td>Descriptive Stats</td>
<td>Rcmdr: An Introduction</td>
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<td>Sep 8</td>
<td>Displaying Data 1</td>
<td>Helberg, 1995</td>
<td>Prob 1</td>
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<tr>
<td>Sep 13</td>
<td>Displaying Data 2</td>
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<tr>
<td>Sep 15</td>
<td>Confidence Intervals</td>
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<td>Prob 2</td>
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<tr>
<td>Sep 20</td>
<td>Significance Testing, Means</td>
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<td>Sep 22</td>
<td>Proportions</td>
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<td>Prob 3</td>
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<tr>
<td>Sep 27</td>
<td>Chi Square</td>
<td>Cowgill, 1977</td>
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<tr>
<td>Sep 29</td>
<td>Association</td>
<td>Gaile, 1985</td>
<td>Prob 4</td>
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<td>Oct 4</td>
<td>Regression</td>
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<td>Oct 6</td>
<td>Transformations</td>
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<td>Prob 5</td>
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<tr>
<td>Oct 11</td>
<td>ANOVA, MCA</td>
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<tr>
<td>Oct 13</td>
<td>Multiple Regression</td>
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<td>Prob 6</td>
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Americans with Disabilities Act (ADA)

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 845-1637. For additional information visit [http://disability.tamu.edu](http://disability.tamu.edu)

Academic Integrity

For additional information please visit: [http://www.tamu.edu/aggiehonor](http://www.tamu.edu/aggiehonor)

“An Aggie does not lie, cheat, or steal, or tolerate those who do.”

Readings

1. **Getting R** by David Carlson

**Statistics and R**


**Sage Quantitative Applications in the Social Sciences**

(Library Electronic Resources)

1. Central Tendency and Variability Weisberg, #83.
2. Statistical Graphics for Univariate and Bivariate Data Jacoby, #117.
4. Confidence Intervals Smithson, #140.
5. Understanding Significance Testing Mohr, #73.
6. Nonparametric Statistics Gibbons, #90
8. Correlation: Parametric and Nonparametric Measures Chen/Popovich, #139.
11. Multiple Comparison Procedures Toothaker, #89.
17. Principal Components Analysis Dunteman, #69.
18. Applied Correspondence Analysis Clausen, #121.
19. Cluster Analysis Aldenderfer/Blashfield, #44.
20. Multidimensional Scaling Kruskal/Wish, #11.