Course Description and Teaching Style

This course is designed to introduce graduate students to basic research design methods and statistical principles used in public policy analysis. The main goal is for you to learn to design and interpret research so you can solve problems and make informed decisions. During this semester, you will learn how to ask questions, probe for answers, and evaluate the answers we get from research. While the course emphasizes how to design and interpret quantitative research, you will be introduced to the foundations of qualitative methods so you are better informed about the strengths and limitations of different research designs. The emphasis of the class is on gaining the ability to think logically and critically about social science research.

Although I do not assume any previous work in methodology for this class, there is an expectation that you have a basic understanding of theories in statistics. We also expect that you will obtain IRB certification prior to the start of Methods II. Certification must be provided to Professor Andrea Hetling at the first class. The modules for completing this certification are part of our Sakai course site.

The goal of this class is NOT to make you into expert statisticians or methodologists, but to give you the skills to become educated consumers and critics of the research. This course is also structure to provide you with a foundation for other policy classes, as well as ensure a smooth transition to Methods II. Equally important, this class should give you a firm foundation as you complete your graduate research.

From a skills perspective, you will also gain experience in researching, analyzing data and writing about public policy issues through short written assignments and class presentations. The final exam also requires proficiency in writing memorandum style reports appropriate for internal organizational communications and project analysis documents.

The class meetings include two class lectures; however, a mixture of lecture and lab work may be incorporated into each session. The format for the class will be both lecture and some facilitated discussion. I am a firm believer of active learning; thus, I will attempt to use discussion and case study analysis in place of traditional lectures whenever possible. I highly encourage questions and expect class participation. Readings should be completed prior to the lecture.
My office hours are posted on the syllabus above. I generally respond to emails within 24 hours. If you do not receive a response from me during this time frame, please resend your message. I care deeply about prompt and accurate responses – when you do not hear from us within 24 hours, assume I did not receive your message rather than I am ignoring it!

**Course Objectives**

The goals of this course are to provide students with:
1. An understanding of the logic of scientific inquiry/empiricism and how to conceptualize research problems and measure concepts
2. The skill to use a statistical computer package
3. An ability to conduct, interpret and present descriptive statistics
4. The foundation necessary to register for the Methods II class
5. 

**Required Text**


*Optional (but Recommended Text)*


**Required Articles**

Any additional required readings will be posted as PDFs on the course Sakai site.

**Grading**

Numerical grades will be calculated on a simple percentage basis as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midterm</td>
<td>20%</td>
</tr>
<tr>
<td>3 Problem Sets</td>
<td>60% (20% each)</td>
</tr>
<tr>
<td>Final</td>
<td>20%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Letter grades will be assigned as follows:

90 to 100% = A  
86 to 89% = B+  
80 to 85% = B  
76 to 79% = C+

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70 to 75% = C
60 to 69% = D
0 to 59% = F

Expectations

Collegial and respectful conduct is expected in class. Class members should consider themselves colleagues who will collaborate to help each other develop a solid understanding of materials and concepts. To facilitate this process, class will start and end on time. While I understand emergencies occur, timely arrivals and departures should be the norm.

Please turn off your cell phones and other electronic devices during class.

All assignments must be completed on time. They should be typed in 12-point font and submitted in hard copy. Late work will be penalized. Assignments turned in the following week will be marked down an entire grade. Assignments cannot be submitted any later than one week after the due date; missed assignments will receive a failing grade.

Cheating, plagiarism and other forms of academic dishonesty will not be tolerated. Such actions will result in a failing grade on the assignment and disciplinary action will be pursued. For further information about academic misconduct and a full explanation of the University’s policies, please see the University’s Policy on Academic Integrity for Undergraduate and Graduate Students located on the web at http://ctaar.rutgers.edu/integrity/policy.html.

My office hours are listed on the top of the syllabus. If any questions or concerns arise, please come see me. If you cannot make my office hours, please make an appointment. Any student in this course who has a disability that may prevent him or her from fully demonstrating his or her abilities should contact me as soon as possible so we can discuss accommodations necessary to ensure full participation and to facilitate your educational opportunities.
## Lecture, Assignment and Reading Schedule

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Date</th>
<th>Topics</th>
<th>Readings (Italicized rdgs. optional)</th>
<th>Key Elements</th>
</tr>
</thead>
</table>
| Lecture 1 | May 26   | Overview: The Scientific Method; Applied Research                      | R&V Chapter 1 & 2 and pp 481-492 and 498-511; Tufte: Visual Presentations                           | • The Scientific Method  
• Quant vs Qual Methods  
• Types of Research  
• Problem & Hypothesis Formation |
| Lecture 2 | May 28   | Conceptualization and Measurement; Research Ethics                     | R&V Chapter 4 and pp 242-247; Healey Ch 1: Introduction                                             | • Concepts  
• Measurement & Operationalization  
• Discrete and Continuous Variables  
• Levels of Measurements |
| Lecture 3 | June 2    | Research Design: Descriptive Statistics & Causation & Univariate        | R & V Chapter 10; Healey Ch 2: Descriptive Statistics; SPSS tutorials & Video Tutorials             | • Percentages and Proportions  
• Ratios, Rates and Percentage Change  
• Frequency Distributions  
• Intro SPSS Software  
• Run Frequencies |
| Lecture 4 | June 4    | Research Design: Experimental, Quasi-Experimental & Non-experimental Designs | R & V Chapter 12 & 13; Case Studies of 3 Designs                                                   | • Experiments  
• Quasi-Experiments  
• Non-experiments |
| Lecture 5 | June 9    | Qualitative Methods: Interviews, Focus Groups, Observations, Case Studies and much more | R & V Chapter 3; Rubin & Rubin Ch 7-9: Qualitative Interviewing: The Art of Hearing Data (pdf)   | • Differences in Qualitative Methods  
• Non-probability sampling  
• Interviews as a tool  
• Structured vs. non-structured questions |
| Lecture 6 | June 11   | Midterm Examination                                                    |                                                                                                      |                                                                                                                                          |
| Lecture 7 | June 16   | Survey Design: Overview & Probability Sampling                          | Chapter 5 and pp 211-224; Klass Ch 4: Voting and Elections                                        | • Probability & MOE  
• Strengths & Weaknesses  
• Basic Design Considerations |
| Lecture 8 | June 18   | Questionnaire Design: Question Wording & Context Effects; Survey Modes & Field Work & Weighting | Dillman Ch 4: The Basics of Crafting Good Questions (pdf); Dillman Ch 8: When More than One Survey Mode is Needed; Groves pg. 347-359 (pdf); AAPOR Code of Ethics & Best Practices | • Question Wording  
• Context Effects  
• Basic Design  
• Survey Modes  
• Mixed Modes  
• Fielding a Survey  
• Trend Analyses  
• Weighting & Imputation |
| Lecture 9 | June 23   | Data Analysis: Statistical Descriptive Statistics; Measures of Dispersion & The Normal Curve | Healy Ch 3: Measures of Central Tendency; Healy Ch 4: Measures of Dispersion and Healy pp. 118-121 | • Measures of Central Tendencies (Individual vs. Grouped Data)  
• Range, Standard Deviation and Variance  
• Normal Curve |

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Lecture 10
June 25
Bivariate Measures
Schutt Ch 14 (pdf); SPSS Tutorials; R & V pp 181-210; Klass Ch 7: Finding Data (pdf); Sakai online resources on memo writing
• SPSS Syntax / Recode variables
• Run frequencies
• Run crosstabs
• Memorandum Writing Tips

Lecture 11
June 30
Finding Data
Klass Ch1: Analyzing Political, Social and Economic Indicators 9 (pdf)
• SPSS Syntax / Recode variables
• Run crosstabs
• Memorandum Writing Tips

Lecture 12
July 2
Course Review
Klass Ch 2: Constructing Good Tables; Klass Ch 3: Creating Good Charts
• Presentation Skills
• Tables & Charts

Final: To be due within a few days of classes ending

Exam and Assignment Schedule

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Date distributed</th>
<th>Date due</th>
<th>Covers:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem Set 1</td>
<td>June 4</td>
<td>June 9</td>
<td>Defining Concepts &amp; Hypothesis Formation / Selecting and Calculating Descriptive Stats / Level of Measurement / Ratios, Rates &amp; Percent Change / Frequency Distributions</td>
</tr>
<tr>
<td>Midterm</td>
<td>June 9</td>
<td>June 13</td>
<td>Case Study: Quasi-Experimental Research Design</td>
</tr>
<tr>
<td>Problem Set 2</td>
<td>June 23</td>
<td>June 30</td>
<td>Random Probability / MOE / Question Wording Design /Weighting &amp; Imputation</td>
</tr>
<tr>
<td>Problem Set 3</td>
<td>June 30</td>
<td>July 2</td>
<td>Central Tendencies / Measures of Dispersion / Normal Curve / Bivariate Interpretation &amp; Analysis</td>
</tr>
<tr>
<td>Final</td>
<td>July 2</td>
<td>July 7</td>
<td>Comprehensive Memo: Research Proposal</td>
</tr>
</tbody>
</table>

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Bibliography of Readings


