PLAN 720: Planning Methods

Instructor: Noreen McDonald
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noreen@unc.edu
Office Hours: Tuesday & Thursday 3:30-4:30

TA: XX
XX@email.unc.edu
Office Hours: Monday 3:30-5:00 (DCRP Computer Lab)

Lecture: Tuesday & Thursday 11 - 12:15, New East, Room 102
Lab: Monday 1-1:50, Saunders 322 OR
Monday 5:00-5:50, Saunders 322
Recitation: Friday 11-11:50, New East Room 102

Course Description
PLAN 720 is an introductory course in planning methods featuring lectures, computer labs, and hands-on assignments. The course will help you to understand:

- Asking questions: How can you use data to answer a pressing policy question?
- Gathering data: What sources do planners use and how can you access them?
- Summarizing data: How can you present the data in a meaningful way?
- Analyzing data: How do you assess what your data means?

Course Objectives
By the end of this course you will be able to:

- Evaluate statistical research of others, including data analysis and research design
- Conduct basic statistical techniques including comparisons among groups
- Effectively communicate data
- Create charts, tables, and statistical functions in Excel

Course Requirements:
Problem Sets: Weekly problem sets will be assigned to give you practice on techniques we cover in class. The assignments are to be written up individually although you are allowed and encouraged to confer with your colleagues on the assignments. Problem sets will not be graded, but we will note whether the assignment has been completed. Completed is defined as a significant effort at the entire problem set. We will distribute answer keys for the assignment,
please take the time to check your work and ask if you have questions. No late assignments will be accepted. You are allowed to miss 1 problem set during the semester and still receive full credit. You are encouraged to work with your classmates on problem sets, but each person should write up their final answers themselves.

**Quizzes**: Occasional quizzes will be given throughout the semester. Quizzes will be less than 10 minutes in length.

**Exams**: There will be two exams during the semester. The first will cover information from the first part of the course. The second will cover information from the second half of the course. There is no final exam for the course.

**Project**: Students, working in pairs, will propose and evaluate a research question using existing survey data. All projects are due by 5pm on the due date to my mailbox on the first floor of New East Hall. No late assignments will be accepted without a note from your doctor or the appropriate medical staff.

**Participation**: Participation in the class and effective collaboration with your teammates is essential in this course.

### Grading

<table>
<thead>
<tr>
<th>Assignments</th>
<th>Due</th>
<th>Points</th>
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</thead>
<tbody>
<tr>
<td>1. Problem Sets</td>
<td>ongoing</td>
<td>10</td>
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<tr>
<td>2. Quizzes</td>
<td>ongoing</td>
<td>10</td>
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<tr>
<td>3. Research Project (Pairs)</td>
<td>Report: December 16, 5pm</td>
<td>25</td>
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<td>4. Exam I</td>
<td>October 12, Take Home</td>
<td>25</td>
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<tr>
<td>5. Exam II</td>
<td>December 2, in class</td>
<td>25</td>
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<td>6. Participation</td>
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<td>5</td>
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**Readings**

The textbook is

   Any edition is fine (including the on-line version).

We will also use articles which will be provided electronically on Blackboard or on e-reserves.

Several books are on reserve in the House Undergraduate Library.

   Useful for writing up statistical analyses, particularly for the final project.
   Good reference for how to handle census data.
   Good memos on how to write and present data.
   Similar material as Agresti and Franklin, may be useful if you want a second perspective.
   Good reference for writing up your analysis.

**Honor Code**

The UNC honor Code states: “It shall be the responsibility of every student at The University of North Carolina at Chapel Hill to obey and to support the enforcement of the honor code, which prohibits lying, cheating, or stealing when these actions involve academic processes or University, student or academic personnel acting in an official capacity.”

To meet this standard in this course, note the following: in written work, all ideas (as well as data or other information) that are not your own must be cited. Note that ideas that require citation may not have been published or written down anywhere.

For this course, it is appropriate (and encouraged) to discuss and work together on problem sets. I expect that if you work together on problem sets, you write your assignments up separately and understand all responses.
# Course Schedule

<table>
<thead>
<tr>
<th>Class</th>
<th>Date</th>
<th>Topic</th>
<th>Assignments Due</th>
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<tbody>
<tr>
<td>1</td>
<td>8-24</td>
<td>Introduction</td>
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<td>2</td>
<td>8-26</td>
<td>Census Introduction</td>
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<tr>
<td>3</td>
<td>8-31</td>
<td>Summarizing Data: Central Tendency</td>
<td>PS 1: Census Data</td>
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<tr>
<td>4</td>
<td>9-2</td>
<td>Summarizing Data: Spread &amp; Distribution</td>
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<tr>
<td>5</td>
<td>9-7</td>
<td>Summarizing Data</td>
<td>PS2: Summarizing Data</td>
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<tr>
<td>6</td>
<td>9-9</td>
<td>Presenting Data</td>
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<tr>
<td>7</td>
<td>9-14</td>
<td>Measures &amp; Indicators: Location Quotient</td>
<td>PS3: Data Presentation</td>
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<tr>
<td>8</td>
<td>9-16</td>
<td>Measures &amp; Indicators</td>
<td>PS4: Indicators</td>
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<tr>
<td>9</td>
<td>9-21</td>
<td>Measures &amp; Indicators: Financial</td>
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<tr>
<td>10</td>
<td>9-23</td>
<td>Research Design</td>
<td>PS5: Research Questions</td>
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<tr>
<td>11</td>
<td>9-28</td>
<td>Research Design</td>
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<tr>
<td>12</td>
<td>9-30</td>
<td>Research Design</td>
<td></td>
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<tr>
<td>13</td>
<td>10-5</td>
<td>Association Between Variables</td>
<td>PS6: Research Questions Project Proposals Due</td>
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<td>14</td>
<td>10-7</td>
<td>Exam Review</td>
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<td>15</td>
<td>10-12</td>
<td>University Day (no class)</td>
<td>Take-Home Exam 1 Due</td>
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<td>16</td>
<td>10-14</td>
<td>Exam Review &amp; Probability</td>
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<tr>
<td>17</td>
<td>10-19</td>
<td>Probability Distributions</td>
<td>Revised Project Proposals Due</td>
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<td>18</td>
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<td>10-21 FALL BREAK</td>
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<td>19</td>
<td>10-26</td>
<td>Probability Distributions</td>
<td>PS7: Probability</td>
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<td>20</td>
<td>10-28</td>
<td>Confidence Intervals</td>
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<td>21</td>
<td>11-2</td>
<td>Significance Tests</td>
<td>PS8: Confidence Intervals</td>
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<td>22</td>
<td>11-4</td>
<td>Significance Tests</td>
<td></td>
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<tr>
<td>24</td>
<td>11-11</td>
<td>Comparing 2 Groups-Proportions</td>
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<td>25</td>
<td>11-16</td>
<td>Association: Categorical Variables</td>
<td>PS10: Comparing Groups</td>
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<td>26</td>
<td>11-18</td>
<td>Comparing Groups- ANOVA</td>
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<td>27</td>
<td>11-23</td>
<td>Association: Quantitative Variables</td>
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<td>28</td>
<td>11-25</td>
<td>THANKSGIVING</td>
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<td>29</td>
<td>11-30</td>
<td>Exam Review &amp; Catch-up</td>
<td>PS11: Regression</td>
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<td>30</td>
<td>12-2</td>
<td>Exam II</td>
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<td>31</td>
<td>12-7</td>
<td>Survey Design &amp; Course wrap-up</td>
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<tr>
<td>32</td>
<td>12-16</td>
<td>Research Project Due</td>
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## Lab Schedule

Lab is scheduled every week. The available times are: Monday 1-1:50 and Monday 5-5:50. We will assign lab sessions during the first week of classes REGARDLESS of which one you enrolled in online. All labs will take place in Saunders 322 unless otherwise noted.

## Recitations

Friday 11-11:50, New East 102

Recitations will be used for review. There will be no recitations when special Bootcamp sessions are scheduled.
Readings

August 24: Introduction and Information in Planning

Recommended:
Innes, Judith “Information in Communicative Planning” JAPA 64(1) 52-68

August 26: Census Introduction

Myers Chapter 3, p. 39-46

Recommended:
Explore http://www.census.gov/history/index.html
Myers, Chapter 3 & 4

August 31- September 7: Summarizing Data

Agresti & Franklin (A&F) Chapter 2

Recommended:
Myers, Chapter 4, pages 83-96, Ch 5
Huff, Chapter 2
GAO Quantitative Analysis, Chapters 1 -3, 5

September 9: Presenting Data


Recommended:
Miller, Chapter 2
Myers, Ch. 5 (pages 97-125)
Elements of Technical Writing, chapters 1-4, 8-10. Read chapter 4 and 113-118 most carefully; the whole book will be useful this semester and later.
September 14-21: Indicators  
Patton & Sawicki, Chapter 7, p. 276-289  
Klosterman, Chapter 10.

Recommended:  
DeNeufville, Judith. Chapter 9, Structuring the Data. *Social Indicators and Public Policy*.  
Sawicki & Flynn. Neighborhood Indicators: A Review of the Literature and an Assessment of  
Conceptual and Methodological Issues. *JAPA*  
Cowell, Chapter 1 & 2  
(http://www.nytimes.com/2008/12/06/business/economy/06idle.html?_r=1&scp=1&sq=&st=nyt)  

September 23-30: Research Design  
A&F Chapter 4 or GAO Quantitative Analysis, Chapter 6  
Research Methods Knowledge Base ([http://www.socialresearchmethods.net/kb/intres.php](http://www.socialresearchmethods.net/kb/intres.php))  

Recommended:  
Mayer, Robert and Ernest Greenwood. 1980. The Design of Social Policy Research, Ch. 4  

October 5: Association between Variables  
A&F Chapter 3 or GAO Chapter 4

October 14: Probability  
A&F Chapter 5

October 19 & 26: Probability Distributions  
A&F Chapter 6 or GAO Quant Analysis Ch 5

October 28: Confidence Intervals  
A&F Chapter 7

November 2 & 4: Significance Tests  
A&F Chapter 8

November 9: Comparing 2 Groups—Means  
A&F Ch. 9.2-9.5

November 11: Comparing 2 Groups—Proportions  
A&F Ch. 9.1
November 16: Association: Categorical Variables
2 Groups: A&F Ch. 10

November 18: Comparing Groups—ANOVA
A&F Ch. 13

November 23: Association: Quantitative Variables
A&F Chapter 3.3, 11

December 7: Survey Design
A&F Chapter 4, 7.4

Recommended: