

# **UNIVERSITY OF NORTH TEXAS**

## **DEPARTMENT OF PUBLIC ADMINISTRATION CHILTON HALL, DENTON**

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PADM 6710  
Administrative Research Methods II

### **Course Outline** Fall 2018

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Class Meeting: Monday 6.00 – 8.50PM @ Chilton Hall 270 (Lab)

Instructor: Simon A. Andrew, Ph.D.  
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Or by appointment

## Introduction

This course covers quantitative approaches to the study of management and program evaluation. These approaches are important tools used by researchers to inform practitioners (and vice versa) about the field of public administration. The first part of this course builds on what was covered in the first research methods sequence, which stresses data analysis, statistical techniques, and computer applications in the field of public administration. It extends the sequence by examining the basic assumptions of bivariate and multivariate analyses and introduces other quantitative techniques such as dummy and nominal independent variables. We also cover methods for the study of limited dependent variables.

## Course Objectives

1. To give students the tools to be an intelligent consumer of statistical analysis results and processes.
2. To develop and learn how to implement public administration and non-profit research strategies.
3. To provide students the basic skill to write research proposal and apply quantitative methods.

## Required/Recommended Text\*\*

Meier, K., Brudney, J., and Bohte, J. (2009). *Applied Statistics for Public Administration*. Thomson Wadsworth Publishers. (6<sup>th</sup> or 7<sup>th</sup> Edition) ISBN: 0-495-50110-7

J.S. Long (1997) *Regression Models for Categorical and Limited Dependent Variables*, Advanced Quantitative Techniques in the Social Science Series 7, Sage Publications; Chapters 1, 2, and 3

Mark Schneider, John Scholz, Mark Lubell, Denisa Mindruta, and Matthew Edwardsen (2003) "Building Consensual Institutions: Networks and the National Estuary Program," *American Journal of Political Science*, Volume 47 Issue 1, Pages 143 - 158

\*\*Note that a student of this institution is not under any obligation to purchase a textbook from a university-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

## Materials

Electronic Calculator is handy for doing simple calculations.

## Software

All software is in the lab. However, for those wishing to go to the extra expense, the SPSS Student Pack is sold for about \$100 from <http://www.journeyed.com> (enter "SPSS" into their search box). The campus bookstore can order this directly from SPSS.

## Dataset

Some practical examples will be based on the ICMA dataset i.e., Municipal Form of Government (2006), County Form of Government (2007) Dataset - South Region Dataset, and Homeland Security Survey (2005). Other examples will be based on the analysis conducted by Meier et al (2008).

#### Course Grading (PhD Students)

Homework	30 %
(2 sets of homework, 15% each)	
In-class Exam	55 %
Exam I (30%)	
Exam II (25%)	
Research Proposal	15 %
1 <sup>st</sup> Draft (5%)	
Final Proposal (10%)	

#### Grades Breakdown

A = 100–90% B = 89–80% C = 79–70% D = 69–60% F = 59% below

#### Course Policies

1. All assignments must be turned in on time.
2. No work will be accepted after **5 pm on Monday, 10 December 2018**.
3. If you are using a computer or other technology to take notes, this is fine. It is not ok, however, to surf the web, text others, or read or send emails during class time. If you choose to ignore this, plan to retake the class at a later date as it will result in one-full level grade point deduction from your final course grade (i.e., your overall grade in the course will move from an A to a B, a B to a C, etc.).

#### A Few Final Comments

1. A sure-cut way to make life miserable for you and me is to delay attempting to master the course material until the end of the semester. Unlike many “substantive” courses, you cannot delay your work until the last few weeks before the final exam and expect the course to “come together.” The material for the course is (to use an overused--but very accurate--expression) accumulative; if you do not master the material on a week by week basis; it will **not** come together at the end. I know you have heard this before, but for this course it’s true.
2. For the quantitative portion of this course, you need to be very attentive throughout the course to the proper language for describing quantitative research findings. It is not enough to read the material, say to yourself “this makes sense,” and turn your attention to something else. You need to know the material well enough to be able to discuss it and write about it using the standard language for communication. So, when reading, be very careful to note the precise phrasing and sentence structure used by the authors.

#### Student Perception of Teaching (SPOT)

Students are strongly encouraged to complete the Student Perception of Teaching (SPOT) survey. This short survey will be made available on-line at the end of the semester.

### Policy on Disability Accommodation

Students with disabilities needing academic accommodation should (1) register with and provide documentation to the Office of Disability Accommodation (ODA); and (2) bring a letter to the instructor indicating the need for accommodation and what type. This should be done during office hours before the 12th class day of regular semesters.

### Acceptable Student Behavior

Student behavior that interferes with an instructor's ability to conduct a class or other students' opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Center for Student Rights and Responsibilities to consider whether the student's conduct violated the Code of Student Conduct. The university's expectations for student conduct apply to all instructional forums, including university and electronic classroom, labs, discussion groups, field trips, etc. The Code of Student Conduct can be found at [www.unt.edu/csrr](http://www.unt.edu/csrr)

### Research Design

A research design (draft) for the final research paper is **due in WEEK 4**. Note that the main purpose of your draft is to tell me what you are planning to do for your final research paper. This portion of the assignment should study or propose to analyze public management issues, micro or macro. The proposed study must apply issues related to public management with which you are familiar or/and engage one or more of the theoretical models from our readings. In other words, **try to avoid toy project and make sure there is a point in doing the research.**

The first draft of your proposal is due on **WEEK 14**.

The final version of your research proposal must be submitted on or before **WEEK 16**. PhD students will NOT present their proposal in class. The final proposal should be between 25 and 30 pages (double spacing) excluding references. Note that I will only accept proposal with quantitative methods.

Your final proposal should include the followings:

#### **1. Project Summary**

Your proposed research should include a summary that is no more than 1 page. The summary should be informative and, if possible, should be written in a language that is understandable to a broad audience. In other words, avoid technical juggles. Your project summary is not an abstract of the proposal.

#### **2. Broader Impacts and Intellectual Merit**

You must write two statements as part of you proposal: Broader Impacts and Intellectual merit. Based on the National Science Foundation (NSF) guideline, the Intellectual Merit criterion encompasses the potential to advance knowledge, i.e., how your proposal contribute to theory or current knowledge; and the Broader Impacts criterion encompasses the potential to benefit

society, i.e., how your proposed research contributes to desired societal outcomes. Note that both statements should not include *value judgments* about the merits of your work.

### **3. Project Description**

#### *Introduction Section*

Write 3 – 4 paragraphs. The first paragraph should introduce the problem/ issue (substantive area) you are studying. The second paragraph explains the theoretical debate i.e., how they might explain the issue/problem. The third paragraph must present your main argument and explain how that argument can resolve/answer your research question/problem/issue. Be sure to explain why and how your research can make contribution to the field of public management.

The last paragraph informs the reader what the paper is all about, but this time you need to be specific about your theory and the main objective of the paper. It should provide a road-map for the readers.

#### *Theoretical Framework/Literature Section*

In this section, you need to tease out or discuss the main components of the theory (or theories) and then specify your hypotheses. The existing literature is supposed to help you develop your main arguments. One of the most frustrating aspects of reading student projects is that there is a tendency to summarize the literature rather than integrate the materials in a way that is cohesive and logical. You are not writing an annotated bibliography, so please do not provide a laundry list of citations and statements about what others found in some sort of annoying ways. You should be presenting a theory that explains the problem you are studying and develop your hypotheses (hopefully one that is testable) based on the chosen framework or theory. Once again, I cannot overemphasize this point: The existing literature is supposed to help you develop your main arguments.

#### *Research Design/Data Collection Section*

This is perhaps the weakest part of most students' work. You need to inform the readers of the nuts and bolts of your dataset.

- i. You must have a paragraph or two describing your sample selection or site selection. You must explain the rationale behind your selections. For example, what is your unit of analysis? i.e., countries, states, individuals, organizations, city, county etc. Where did you send the surveys? Who responded? What is the usable sample size? How did you conduct the sample selection? Did you face selection bias problems? What techniques have you used to resolve the problems? How can you be sure that those responded to the surveys are not mostly from the wealthy households?

- ii. How did you measure or operationalize each variable? For example, budget two or three paragraphs on your dependent variable. Explain the substantive interpretation of your dependent variable by either illustrating a mathematical example or through some concrete “real-life” examples. Why did you choose that particular variable to operationalize the concept?
- iii. Similar logic applies to your main independent and control variables (though a detailed write-up is not necessary for the control variables). But, they have to be based on the theory developed in the previous section. You also need to state whether the independent variables will have a positive or negative effect on the dependent variable i.e., what do your hypotheses predict about the coefficients?

#### *Methods of Analysis*

For your statistical analysis, try to avoid technical jargon or terms that are too technical for non-quantitative folks to understand. You want to write this section in English. You are not writing the paper for statisticians or methodologists. In saying that, you should specify your statistical model (or regression equation(s)). You do need to explain how the model is estimated (OLS, robust standard errors, multinomial logit, probit, or Tobit etc.).

Depending on the level of sophistication of your model, it is sufficient to write one or two sentences if your model is already well known in the literature. If you use a complex modeling technique, be ready to write your explanation in English.

You should provide a table that summarizes all the variables i.e., a table that lists the variables names (avoid using acronyms or abbreviations), their means, and something about their dispersion, minimum, and maximum. You probably want to tell the reader where you get the data, i.e., if your source is from the government census, which year?

#### **4. Time schedule**

Your research proposal should include a time schedule of research activities that you are planning to conduct.

## Course Outline and Schedule

Date/Week	Course Outline	Comments
<b>Week 1</b> 27 Aug	<b>Introduction and Housekeeping</b> <b>Lecture 1: Overview:</b> Introduction to Inferential Statistics and Confidence Interval  <b>Lecture 2: Overview:</b> Test of Significance---Hypothesis Testing (one sample); Testing the difference between two groups (dependent and independent samples) <u>Reading</u> Meier et al (2009) <b>Chapters 11, 12, 13, &amp; 14</b>	
<b>Week 2</b> 3 Sept	<b>Labor Day – No Class</b>	
<b>Week 3</b> 10 Sept	<b>*Workshop 1:</b> Bivariate Analysis and Correlation <u>Reading</u> Meier et al (2009) <b>Chapter 18</b>	
<b>Week 4</b> 17 Sept	<b>***Workshop 2:</b> Multiple Regression Analysis <u>Reading</u> Meier et al. (2009) <b>Chapters 19 &amp; 21</b>	<b>Project Summary Due (in class)</b>
<b>Week 5</b> 24 Sept	<b>**Workshop 3:</b> Understanding Multiple Regression Assumptions <u>Reading</u> Meier et al. (2009) <b>Chapter 21</b> on Multicollinearity and <b>Chapter 19</b> on Heteroscedasticity <b>Roundtable Discussion 1: Review for Exam I</b>	<b>Homework 1 due (Friday at 5pm)</b>
<b>Week 6</b> 1 Oct.	<b>***Workshop 4:</b> Dichotomous Variables and Nominal Independent Variables <u>Reading</u> Meier et al. (2009) <b>Chapter 19</b> and pay special attention to <b>Chapter 21</b> , page 395.	
<b>Week 7</b> 8 Oct	<b>***In-Class Examination I</b>	
<b>Week 8</b> 15 Oct	<b>***Workshop 5:</b> Introduction to Logistic Regression <u>Reading</u> <b>J.S. Long</b> (1997) <i>Regression Models for Categorical and Limited Dependent Variables</i> , Advanced Quantitative Techniques in the Social Science Series 7, Sage Publication; <b>Chapters 1, 2, &amp; 3</b>	
<b>Week 9</b> 22 Oct	<b>***Workshop 6:</b> Maximum Likelihood Test	
<b>Week 10</b> 29 Oct	<b>Workshop 7:</b> Models with Quadratics (Polynomial Model) and Logarithmic Functional Forms <u>Reading</u> Meier et al. (2009) <b>Chapter 21</b> on Polynomial Model (page 405); <b>Chapter 20</b> on logarithms (page 374)	

<b>Week 11</b> 5 Nov	<b>Workshop 8:</b> Measurements Theory: Measurements Reliability and Validity; Research Design: Quasi-Experimental Design & Experimental Designs <u>Reading</u> Meier et al (2009) <b>Chapters 2 &amp; 3</b> Meier et al. (2009) <b>Chapter 14</b> on Testing the Difference between Two Groups (Revisited) <u>Discussion of readings</u> Mark Schneider, John Scholz, Mark Lubell, Denisa Mindruta, and Matthew Edwardsen (2003) "Building Consensual Institutions: Networks and the National Estuary Program," <i>American Journal of Political Science</i> , Vol. 47 (1): 143 - 158	<b>Homework 2 due</b> <b>(Monday)</b>
<b>Week 12</b> 12 Nov	<b>Workshop 9:</b> Research Design (Revisited) Survey Research <b>Roundtable Discussion 3:</b> Review for Exam II	
<b>Week 13</b> 19 Nov	<b>***In-Class Examination II</b>	<b>Thanksgiving</b> <b>Weekend</b>
<b>Week 14</b> 26 Nov	First Draft of Research Proposal Due	
<b>Week 15</b> 3 Dec.	PhD Students are expected to attend MPA Research Presentations	
<b>Week 16</b> <b>10 Dec</b>	Final Research Proposal (Write-up) (PhD Students)	

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Note: The schedule and assignments may be revised as the course progresses and new material becomes available.



## **UNIVERSITY OF NORTH TEXAS - DEPARTMENT OF PUBLIC ADMINISTRATION**

### **POLICY ON CHEATING AND PLAGIARISM**

Notice of this policy shall be given in all public administration classes each semester, and written copies shall be available in the public administration departmental office.

#### **Definitions**

The UNT Code of Student Conduct and Discipline defines cheating and plagiarism "as the use of unauthorized books, notes, or otherwise securing help in a test; copying other's tests, assignments, reports, or term papers; representing the work of another as one's own; collaborating without authority with another student during an examination or in preparing academic work; or otherwise practicing scholastic dishonesty."

#### **Penalties**

Normally, the minimum penalty for cheating or plagiarism is a grade of "F" in the course. In the case of graduate departmental exams, the minimum penalty shall be failure of all fields of the exam. Determination of cheating or plagiarism shall be made by the instructor in the course, or by the departmental faculty in the case of departmental exams.

Cases of cheating or plagiarism on graduate departmental exams, papers, theses, or dissertations shall automatically be referred to the departmental Curriculum and Degree Programs Committee. Cases of cheating or plagiarism in ordinary course work may, at the discretion of the instructor, be referred to the Curriculum and Degree Program[s] Committee in the case of either graduate or undergraduate students. This committee, acting as an agent of the Department, shall impose further penalties, or recommend further penalties to the Dean of Students, if they determine that the case warrants it. In all cases, the Dean of Students shall be informed in writing of the case.

#### **Appeals**

Students may appeal any decision under this policy by following the procedures laid down in the UNT Code of Student Conduct and Discipline.

### **POLICY ON DISABILITY ACCOMMODATION**

The Department of Public Administration, in cooperation with the Office of Disability Accommodation, complies with the Americans with Disabilities Act in making reasonable accommodations for qualified students with disabilities. Please present your written accommodation request during regular office hours before the 12th class day of regular semesters (4th class day of summer sessions).

Adopted 1977, revised 1993