

AMERICAN UNIVERSITY
SCHOOL OF PUBLIC AFFAIRS
DEPARTMENT OF PUBLIC ADMINISTRATION AND POLICY
Course Syllabus for PUAD 605 – Quantitative Methods for Public Managers
Spring 2012

Instructor:	Tamara Hafner	Class Time:	Mondays, 5:30 - 8:00 PM
Office:	Ward 345	Class Location:	Ward 107
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Course Objectives

Quantitative data are often the main evidence used in the formulation and evaluation of policy. Public managers therefore need to be able to evaluate the strengths and weaknesses of claims made on the basis of quantitative data. This course is intended to help you understand basic statistical analysis so that you can become a critical consumer of quantitative data and be able to judge the validity of conclusions drawn from quantitative data. After completing this course you should be able to:

- Use SPSS to run basic statistical analyses.
- Use measures of central tendency and dispersion to describe data.
- Interpret tables and charts and depict data visually
- Understand statistical inference and probability.
- Develop hypotheses and use the appropriate statistics to test them.
- Use appropriate measures of association to examine and describe the strength of bivariate relationships.

Prerequisites

There are no prerequisites. However, an understanding of basic algebra is necessary to understand the material covered in this course. Students are therefore expected to reacquaint themselves with basic algebra where necessary. Please let me know if you need assistance

Course Materials

- The required text is available for purchase online and from the University Bookstore. Meier, K.J., J.L. Brudney and J. Bohte. (2012). *Applied Statistics for Public and Nonprofit Administration* (8th ed). Wadsworth. ISBN: 978-1-111-34280-7
E-book versions are available (<http://www.coursesmart.com/IR/3405170/9781111342807>) and are generally less expensive. Older editions of the text work just as well. The textbook is also on reserve at the library.
- You will need a calculator for in-class exercises, homework assignments and exams. Please bring one to each class. You will not be allowed to use a smart phone as a calculator for the exams.

Green Teaching

This is a Certified Green Course. This means, for example, that I will try to limit the number of printed materials I hand out, and that I will use Blackboard extensively to post class materials. To help make our class as green as possible, I encourage you to use your laptops, tablet computers or smart phones to access course materials during class. I also encourage you to buy used books, and minimize paper use by reading all course materials online rather than printing copies. If you choose to print, please print double-sided, and recycle the paper after the end of the semester.

Academic Support

I am committed to assisting you in excelling in this course. Please do not hesitate to consult with me if you experience difficulty with this course for any reason. I am available for office hours on Mondays, 3 - 5 p.m. and by appointment throughout the week. You can request an appointment by sending me an email. The department also provides a tutor, the schedule is posted on Blackboard.

Please note that there is a wide range of services available on campus to support you in your efforts to meet the course requirements. These services include:

- The Academic Support Center offers study skills workshops, individual instruction, tutor referrals, Supplemental Instruction, and services for students with learning disabilities and ADHD. x3360, MGC 243, <http://www.american.edu/ocl/asc/index.cfm>
- The ASC Writing Lab or the Writing Center offers writing support. Battelle-Tompkins 228, <http://www.american.edu/ocl/asc/Writing-Lab-About-Us.cfm>
- The Counseling Center offers counseling and consultations regarding personal concerns, self help information, and connections to off campus mental health resources. x3500, MGC 214, <http://www.american.edu/ocl/counseling/>
- The Disability Support Services offers technical and practical support and assistance with accommodations for students with physical, medical, or psychological disabilities. x3315, MGC 206, <http://www.american.edu/ocl/dss/>

If you qualify for accommodations because of a disability, please notify me in a timely manner with a letter from the Academic Support Center or Disability Support Services so that we can make arrangements to address your needs.

Blackboard & Communication

There is an active Blackboard site for the course. All announcements, course material and resources will be posted on the site as needed. You will also be required to submit all assignments through Blackboard. I prefer to communicate through e-mail and I will respond to any queries you may have within 24 hours. Any e-mail communication I initiate will be directed to your AU account so please have your e-mail forwarded to your preferred e-mail address if necessary.

Assignments and Evaluation

Your final grade will be based on the following components:

- Homework assignments, 25%
- Policy Report, 25%
- Mid-term exam, 25%
- Final exam, 25%

Grade Conversion Chart

Letter Grade	% Equivalent	Letter Grade	% Equivalent
A	95-100	C+	77-79.99
A-	90-94.99	C	74-76.99
B+	87-89.99	C-	70-73.99
B	84-86.99	D	60-69.99
B -	80-83.99	F	<60

All assignments are professional work products and should be prepared as such. I will refuse credit to any work that is illegible or not neatly presented. Please submit your work on time. All late work will be docked 5 percentage points for each day past the deadline. No late submissions will be

accepted one week beyond the due date. Please note that there will be no extra credit assignments for you to raise your grade. I am willing to discuss your grade on any assignment so please feel free to contact me if you think I made an error in my evaluation of your work.

Homework Assignments

You will have 5 homework assignments to submit for grading and they are each worth 5% of your course grade. All assignments should be submitted via Blackboard by the beginning of class on the day they are due. This requirement stands even if you will be absent. If you have a handwritten worksheet, you can submit it at the beginning of class.

Policy Report

You are required to submit a policy report which accounts for 25% of your course grade. This project is intended to help you develop your basic analytical skills and give you practice in interpreting and presenting quantitative data. You can choose any research question you wish. I have provided several datasets but you are free to use your own with my approval. A one-page memo detailing your research question and your plans for analysis is due on March 19. You must submit a proposal by the due date, otherwise you forfeit 5% of your course grade. Specific instructions, the datasets and additional resources are provided on Blackboard. You can choose to work with one partner if you wish.

I will be using Turnitin.com— an online text-matching program—in my evaluation of your policy report. Although Turnitin has been characterized as a “plagiarism-prevention” program, we will use it in this class to help educate you about the writing process and to foster integrity. Instructions are posted on Blackboard.

Exams

There are two exams, a mid-term (March 5) and a cumulative final exam (May 7). The exams are each worth 25% of your course grade. Both exams will be administered in class and will be closed-book (a formula sheet will be provided). A calculator will be needed for both exams. You will not be allowed to use a smart phone as a calculator for the exams. No make-up exam will be scheduled unless circumstances are exceptional (e.g. medical or family emergency).

SPSS Software and Resources

You are required to use SPSS for your research project and some assignments. You have several options:

- All computer labs on campus have SPSS on the computers
- You can rent a copy of SPSS for 6 months for \$46 (<http://www.onthehub.com/spss/>)
- You can purchase the full copy of SPSS for ~\$200 (<http://www.studentdiscounts.com/> or <http://www.spss.com/software/statistics/academic/gradpack/>)

I encourage you to use the lab on campus and purchase/rent SPSS only if you plan on using it in your work elsewhere.

A SPSS content area is included on the course’s Blackboard site where you can find tips on navigating SPSS. In addition, please note the following:

- *CTE SPSS Resources* — Options include print and video tutorials, as well as links to SPSS’s own site (http://www.american.edu/cte/training/training_online.htm). Similar resources are also available through J:\CLASSES\SSRL\SPSS\Doc Tutorial Files.

- *Social Science Research Lab (SSRL)*— Located in Hurst 202, this computer lab is staffed by graduate students knowledgeable about statistics and SPSS who are paid to help you! The lab's phone number is (202) 885-3862 and they are open during the following times:

Monday-Thursday	9:30 am – 11:00 pm
Friday	9:30 am – 7:00 pm
Saturday	12:00 pm – 7:00 pm
Sunday	10:00 am – 7:00 pm
- *UCLA Stat Computing Portal*— Includes links to a variety of online statistics resources, organized by software (including SPSS) and type of analysis (multilevel, survey, etc.) (<http://www.ats.ucla.edu/stat/>)

Class Format

Each class session will typically consist of two sections. In the first half of class we will have a 30-minute lecture mixed with discussions and in-class exercises based on the assigned readings, case and homework. We will break at 6:45 and reconvene in the computer lab at 7 p.m. where you will work through problems using the SPSS Software package. *SPSS Labs will be held in SPA Lab (Ward Building Sub-Terrace level).*

Expectations of Students

Participation & Conduct

All reading and written assignments should be completed before class. We will all learn from each other so I expect you to come each week prepared to share your knowledge and insight with the class. The class will be interactive so you will be expected to ask and answer questions, and participate in group exercises.

Class Attendance

Each session builds on material covered in the previous sessions. You are therefore strongly encouraged to attend all sessions. If you miss three or more sessions during the semester, you will be penalized 1/3 of a letter grade (e.g. B- instead of A+) on your final grade. Exceptions will be granted for work, medical or family emergencies. Class begins promptly at 5:30 p.m. and ends at 8:00 p.m. Please arrive on time and be prepared to stay for the full session.

Cell Phone & Laptop Use

Please do not use your cell phones during class. Please mute or power off your phones before class. Feel free to use your laptop for taking notes or accessing course material online.

Reading and Writing Standards

Throughout this and every other course you should give careful attention to writing style, source citations, and proper listing of references. The American University Library's Information Literacy Tutorial provides an introduction to research and writing. You should consider taking this tutorial if you have not already done so. Citations should be used when appropriate and you should adopt a consistent citation style. You may cite websites as sources but you should evaluate websites carefully for academic quality and reputation. I have listed several writing resources below.

- The library's literacy tutorial can be accessed at <http://www.library.american.edu/tutorial/index.html>
- Citation style resources include:
 - The library's website at http://www.library.american.edu/e_ref/citation.html
 - David, J.P. (2007). *The Rowman & Littlefield Guide to Writing with Sources* (3rd ed.).

- Hacker, D. (Ed.). (2006). *A Writer's Reference* (6th ed.). Bedford/St. Martin's Press. See <http://www.bedfordstmartins.com/hacker/writersref>.
- For guidance on website evaluation, please contact a site such as <http://www.library.cornell.edu/okuref/research/webeval.html>.

COURSE SCHEDULE

The chapters listed for reading refer to the Meier et al. text. Readings should be completed before class. Supplemental readings will be posted on Blackboard as needed.

Date	Topic	Readings	Submit	
1	Jan 23	Introduction to Statistics Theory and Levels of Measurement	Chapter 2	
2	Jan 30	Research Design SPSS Lab #1	Chapter 3 Welfare Case	
3	Feb 6	Univariate Descriptive Statistics SPSS Lab #2	Chapters 4,5 & 6	Hmwk #1
4	Feb 13	Probability and the Normal Distribution SPSS Lab #3	Chapter 7 & 8	
5	Feb 20	Introduction to Inference SPSS Lab #4	Chapter 11	Hmwk #2
6	Feb 27	Hypothesis Testing — One-Sample Means Review for Mid-term	Chapter 12	
7	Mar 5	Mid-term Exam		
	Mar 12	Spring Break		
8	Mar 19	Hypothesis Testing — One-sample Proportions SPSS Lab #5	Chapter 13	Proposal
9	Mar 26	Hypothesis Testing — Difference Between Two Groups SPSS Lab #6	Chapter 14	Hmwk #3
10	Apr 2	Measures of Association for Categorical Variables I SPSS Lab #7	Chapters 15 & 16	
11	Apr 9	Measures of Association for Categorical Variables II SPSS Lab #8	Chapter 16	Hmwk #4
12	Apr 16	Regression Analysis I SPSS Lab #9	Chapters 18 & 19	
13	Apr 23	Regression Analysis II SPSS Lab #10	Chapter 21	Hmwk #5
14	Apr 30	Regression Analysis III Course Evaluations		Report
	***	Review for Final Time and Location TBA		
15	May 7	Final Exam		