

Applied Quantitative Methods in Public Policy
PADMN/PUBPL 6290 – Fall 2015 with Levi Pace

Updated
November 30

Class meets Mondays from 6:00 to 9:00 PM in Marriott Library Room 1735.

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Office Hours: Wednesdays 4:00 to 5:00 PM, by appointment Thurs. evenings and other times

6290 is an applied statistics course that teaches analytical methods to help staff at government and nonprofit institutions make informed decisions. The learning focus in and out of class will be using data to answer policy and management questions. The official description follows.

Course involves the analysis of quantitative data, the application of statistics for understanding and conducting public policy research and the use of statistical software. Specific topics include descriptive statistics for discrete and continuous variables, probability theory, hypothesis testing, bivariate associations, ordinary least squares regression and logistic regression. Emphasis is on interpretation of findings. Graduate students will be held to a higher standard of performance (catalog.utah.edu).

Outcomes:

Upon completion of this course, successful students...

- will be acclimated to analyzing data collaboratively and discussing concepts being measured;
- will know how to use SPSS, Excel, or another program to generate descriptive statistics, manipulate tables, create graphs, conduct hypothesis tests, and run regressions;
- will be able to apply their statistics knowledge to a range of government and nonprofit situations;
- will be conversant in appropriate research designs that serve policy and management objectives; and
- will have new connections to Utah nonprofit and government communities and issues.

Class materials:

Applied Statistics for Public and Nonprofit Administration, Kenneth J. Meier, Jeffrey L. Brudney, John Bohte, 9th edition, ISBN: 978-1285737232 (extra copy at Marriott Library reserve desk for three-hour checkout)
I expect we'll use the *Applied Statistics* textbook extensively in and out of class.

Content, assignments, and grades will be posted on Canvas at utah.instructure.com/courses/335117.

Students will need access to Excel or SPSS outside of class. For most assignments, either program will do. One free option is the CSBS Virtual Lab, which offers statistics software over the network. Using a network drive to get your files where the programs can see them is cumbersome, but in most regards it works well on or off campus.

Components:

Below is a description of expectations and graded assignments. For most, additional instructions will be on Canvas. Grade percentages follow in the “Grades” section.

Quizzes – These are intended to measure your progress with the mechanics of generating and interpreting numerical information for given scenarios. Quizzes provide structure to apply key content from the text. They are based on recommended problems for each chapter, usually from the text. Each chapter gives examples and step-by-step instructions for similar problems. The instructor has prepared detailed answer keys for recommended problems. All students get ten free points out of about 70 points for all quizzes to allow them to skip a quiz or miss a few questions without consequences. It is intended that students finish each quiz within a week of us covering the material in class, but the due dates are the date of each exam. Late work is accepted as explained under the “Class policies” section.

Exams – There will be two timed, in-class exams that take a small, fairly random sample chosen from the Canvas quiz questions, only with modified numbers or contexts (same methods). Students will have some choice of questions/problems to solve during these open-book exams—perhaps any three out of four. These are an opportunity for students to show what they are learning in Excel and SPSS. Exams encourage students to review and remember how to do statistics they figured out once for a quiz. The second one is worth more because there is more content, and students will be more accustomed to the format.

Proposals –Students will be asked to submit on Canvas two separate one-page proposals for topics they select, incorporating written feedback from another class member. The goal is to think of practical applications for what we learn. Students can follow their interests related to their workplaces, any nonprofit, local government concerns, national topics of public debate, management issues, etc. To practice research design for decision-making, students frame questions, identify likely data sources, and outline types of analysis that would be helpful. One of these plans may be carried out later for the project, but for the proposal assignments, we’re just looking for reasonable, concise, thorough plans that benefited from peer suggestions. Grading is mostly based on effort. The instructor may circulate these proposals among class members to share ideas. Specific instructions will be provided on Canvas.

Project – Students can pick one of the two proposals for a topic to develop, with any revisions that occur to them as they get further along. Complete your own project to share with the class, one that reflects many of the statistics methods you’ve learned from several chapters of the text, including descriptive statistics, graphs, tables, hypothesis tests, crosstabs, and regressions. Students are encouraged to work in pairs for more extensive projects.

Participation – By being present in class students can learn more about the management context and policy issues related to the mechanics of statistics. They are also more likely to network with students who have shared or different career interests. Engaged students elevate the quality of learning for everyone by offering perspectives and know-how, as well as by listening and asking questions. In an attempt to reward students who take time to participate with the group, attendance will be taken, particularly on the three or so days we have special guests. Students should check with the instructor if

they arrive late or think he might not have marked them as present. Participation grades do not measure who speaks up, although of course that is welcome and encouraged. You can get full participation credit by attending at least 12 of the 15 Mondays, with no absences during the first hour of class September 14, October 19, or November 2. The penalty for each absence beyond the first three, and likewise for absences when we have a guest, is one-half of a percentage point (0.5%) from the final grade. Graduate students have many important priorities; those who need to miss more than three times during the semester can ask the instructor for alternate ways to participate, perhaps by giving a short presentation on a special topic. Please contact the instructor with any concerns.

Grades:

Proposal 1	10%
Proposal 2	10%
Project	20%
Quizzes on Canvas	35%
Exam 1	5%
Exam 2	10%
Participation	10%
Total	100%

<i>Grading Scale</i>		
	<i>Score</i>	<i>GPA</i>
A	93-100	4.0
A-	90-92.9	3.7
B+	87-89.9	3.3
B	83-86.9	3.0
B-	80-82.9	2.7
C+	77-79.9	2.3
C	73-76.9	2.0
C-	70-72.9	1.7
D+	67-69.9	1.3
D	63-66.9	1.0
D-	60-62.9	0.7
E	0-59.9	0.0

Policies:

Late quizzes and projects will be accepted for partial credit. Within five business days of a deadline, the late penalty is 20%. Work received by the end of the semester will receive up to half credit.

Make-up exams must be arranged in advance with the instructor.

Students are asked to be respectful of other class members by using classroom computers or personal devices in a ways that do not distract them or other students. Students can excuse themselves for a few minutes or an extended period of time for personal or work matters that arise.

This syllabus is not a binding legal contract and is subject to change.

Schedule

<i>Date</i>	<i>Content and due dates</i>
Monday, August 24	Chapter 1 intro Chapter 2 measurement
Monday, August 31	Chapter 3 research design Chapter 4 frequency distributions
Monday, September 7	Labor Day – no class
Monday, September 14	Guest: Drew Mingl, Utah Open Data Coordinator Chapter 5 central tendency
Monday, September 21	Proposal 1 due on Canvas at 11:59 pm (one page) Chapter 6 dispersion Chapter 7 normal distribution (abbreviated)
Monday, September 28	Exam 1 on chapters 2 and 4-7 in class (first 30 minutes or so) Quizzes 2 & 4-7 due at 6pm We're skipping chapters 8 and 9. Chapter 10 inference
Monday, October 5	Proposal 1 peer review due on Canvas at 11:59 pm Chapter 11 hypothesis testing Chapter 12 proportions
Monday, October 12	Fall Break – no class
Monday, October 19	Guest: Nicole Cottle, West Valley City Proposal 1 update due on Canvas at 11:59 pm Chapter 13 comparing two groups
Monday, October 26	Chapter 14 crosstabs, 1 of 2 Chapter 15 crosstabs, 2 of 2
Monday, November 2	Guests: Cliff Doner, Visit Salt Lake Morgan Everett, Sundance Film Festival Chapter 16 control tables (abbreviated)
Monday, November 9	Chapter 17 intro to regressions Chapter 18 assumptions of regressions
Monday, November 16	Bring Proposal 2 drafts to class for peer review Chapter 19 time series Catch up and review
Monday, November 23	Exam 2 on chapters 10-19 in class (first hour) Quizzes 10-19 due at 6pm Chapter 20 multiple regression
Monday, November 30	Proposal 2 with peer review and updates due on Canvas at 11:59 pm Chapter 21 regression output Work on project
Monday, December 7	<i>Last day of regular class</i> Preview of SAS and Stata Work on project
Monday, December 14	<i>Final exam period (6:00 to 8:00 pm)</i> Project due on Canvas at 6pm, presentations in class, no exam Quizzes 20-21 due at 11:59 pm

Reasonable accommodation ADA policy:

The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the instructor, as well as to the Center for Disability Services, 162 Olpin Union Building, 581-5020 (V/TDD). CDS will work with you and the instructor to make arrangements for accommodations. All written information in this course can be made available in alternative format with prior notification to the Center for Disability Services.

Academic honesty:

Public service is a calling that requires students, as future administrators, to understand the importance of ethical behavior in all facets of their work, including their academic coursework. The University of Utah and its program expects students to adhere to generally accepted standards of academic conduct, especially given that ethics is a cornerstone of the MPP and MPA programs.

Academic dishonesty undermines the learning experience and erodes the reputation and quality of degrees issued by the University of Utah. In an instructional setting, plagiarism occurs when a writer deliberately uses someone else's language, ideas, or other original (not common-knowledge) material without acknowledging its source. This definition applies to texts published in print or on-line, to manuscripts, and to the work of other student writers. Use quotation marks for direct quotes and liberally cite sources for data and other information to minimize your risks of plagiarism.