

**USC Sol Price**  
School of Public Policy

**PPD 373: Public Policy and Planning Analysis**  
**Section 51114**

**Units: 4.0**

**Fall 2016 Monday and Wednesday 2-3:50 pm**

**Final Exam: Friday, December 9, 2-4 pm**

**Location:** Dauterive Hall (VPD) 112

**Instructor:** Jennifer Miller, Assistant Professor (Teaching)

**Office:** Lewis Hall 319

**Office Hours:** Monday and Wednesday 11am-noon.

Additional office hours available by appointment.

I will monitor Blackboard Chat during **Monday** office hours,  
although in-person students will have priority.

**Email:** mill136@usc.edu

## Course Description

This course provides a toolkit of practical methods based on microeconomics and statistics that will enable you to analyze public policy and planning issues. You will learn tools including applied analytic modeling and data manipulation; visual presentation; interpretation of data; needs assessment and market failure analysis; indexing; extrapolation and simple forecasting; simple risk analysis; benefit-cost analysis.

## Learning Objectives

Successful completion of this course will result in the following learning outcomes.

You will learn the value of quantitative methods for defining problems, making decisions, and evaluating outcomes in public policy and planning contexts.

You will develop knowledge of the following specific topics:

- Application of microeconomic theory to understand market competition, situations in which markets are not perfectly competitive, and consequences of government intervention in markets
- The public policy process and the roles of quantitative methods within that process
- Methods to quantify magnitude, distribution, and trends for public problem definition and planning needs assessment

The course provides an introduction to basic applications of the following specific techniques:

- Indexing: make quantitative comparisons among places and over time
- Extrapolation: use existing data to estimate unknown values.
- Forecasting: use data about the past and present to make predictions about the future.
- Regression: interpret results of multivariate regression analysis
- Hypothesis testing: statement of hypotheses and tests of statistical significance
- Risk analysis: account for the probability and magnitude of uncertain events.
- Cost-benefit analysis
  - Quantify and monetize all costs and benefits associated with a policy or project, including intangible costs and benefits
  - Account for the timing of costs and benefits through discounting
  - Use net present values to choose among alternatives and make go/no-go decisions

You will develop the following specific skills using Microsoft Excel spreadsheet software:

- Import, format, and modify data
- Use graphing features to present data visually with clarity and integrity
- Use formulas and functions to create and interpret quantitative models

**Prerequisite(s):** ECON 203 Principles of Microeconomics, PPD 225 Public Policy & Management, PPD 303 Statistics for Policy, Planning & Development

## Course Notes

Blackboard is used extensively in this course to post assignment descriptions, submit assignments, and communicate grades and feedback on written work.

Nearpod software will be used to structure lecture and discussion in class. Students are expected to follow along with class in Nearpod and respond to the interactive questions presented. If you must miss a class, you are expected to complete the Nearpod in student-paced mode before the next class. You can access Nearpod on a laptop, tablet, and/or phone.

## **Required Readings and Supplementary Materials**

Complete the assigned readings before the date they are assigned. You are expected to take notes summarizing key concepts of the assigned readings. If there are parts of the readings you don't understand, jot down your specific questions in preparation for class or office hours.

## **Required textbook**

Wheelan, Charles. (2011) *Introduction to Public Policy*. New York: WW Norton.

## **Additional required readings**

Additional readings are listed on the detailed course schedule and will be available online.

## **Course Requirements and Grading**

1. Class participation. The class uses an applied lab approach that integrates lecture material with in-class exercises, hands-on analysis and class discussion. You are expected to attend class regularly, do the reading, and participate fully in class activities. Enter your name in Nearpod to register your attendance and participation.

You are expected to come to class every day prepared to take notes by hand, including graphs and complex formulas. Students are required to bring a laptop computer to class on the days of the in-class labs.

Class participation is graded based on observation. Attendance is a necessary but not sufficient condition for a good participation grade.

2. Assignments in this class are broken into 2 categories: Cardinal problem sets and gold portfolio memos. Lynda Excel training online assignments prepare you for both types of assignments.

Problem sets (cardinal). You will complete three problem sets to reinforce key conceptual and quantitative techniques, and to practice the types of questions to be expected on the midterm and final examinations. Students may discuss the problem sets with one another, but all students are responsible for submitting their own individual problem sets. One cardinal assignment is based on an in-class lab.

Portfolio memos (gold). Students will complete a portfolio of three time-series data analyses. Each student will select two data series, one monetary and one non-monetary, to use for all portfolio assignments. The data series must be relevant to public policy and planning analysis and are subject to instructor approval. One gold portfolio memo is based on an in-class lab. All gold memos use the same two data series of the student's choice. The final portfolio incorporates feedback from previous drafts and integrates the three previous data analyses into one memo.

4. Examinations. There will be two examinations (a midterm exam and a cumulative final exam) consisting of short-answer and calculation questions.

## **Assignment Submission Policy**

The economics problem set must be submitted in hard copy at the beginning of class on the due date assigned. All other assignments must be submitted on Blackboard by the beginning of class on the due date assigned. No emailed submissions will be accepted. Late assignments will be penalized ten (10) percentage points for each (full or partial) calendar day late (beginning with the day they are due; late assignments will receive a deduction even if turned in the same day).

Assignment	Type	% of Grade
Economics Problem Set	cardinal	5
Lynda Excel Trainings 1,2 & 3		5
Portfolio Memo 1	gold	5
Midterm Exam		20
Housing Segregation Problem Set & Memo	cardinal	5
Portfolio Memo 2	gold	5
Portfolio Memo 3	gold	5
Decision Analysis Problem Set & Memo	cardinal	5
Final Portfolio	gold	10
Class Participation		10
Final Exam		25
<b>Total</b>		<b>100</b>

### Course Schedule

	Assignment	Portion of Grade	Due Date
	Portfolio topic proposal due	Graded as part of memo 1	September 7
	Economics problem set	5%	September 19
	Lynda Excel training part 1	See below	September 26
	In class descriptive statistics lab	Included in portfolio memo 1	September 28
	Portfolio memo 1 (based on in-class descriptive statistics lab)	5%	September 28
	Midterm exam	20%	October 5
	Lynda Excel training part 2	See below	October 10
	In class Census data lab	Included in housing segregation analysis problem set and memo	October 10
	Housing segregation analysis problem set & memo (based on in-class lab)	5%	October 10
	Portfolio memo 2 (real values)	5%	October 24
	Lynda Excel training part 3	See below	October 26
	Lynda Excel training (total)	5%	See above
	Portfolio memo 3 (projection and prediction)	5%	November 9
	Decision analysis problem set and memo	5%	November 21
	Final portfolio	10%	November 28
	Class participation	10%	Ongoing
	Final exam	25%	Dec. 9, 2:00 - 4:00 PM

## Course Schedule Breakdown

Week	Topics/Daily Activities	Readings and Homework	Deliverable/ Due Dates
<b>Week 1</b> 8/22 and 8/24	Introduction, public policy analysis and the public policy process	Class 1 Mon: Syllabus; Wheelan, Chapter 1 Class 2 Wed.: Portfolio assignment descriptions; Wheelan, Chapter 2; <i>CQ Researcher</i> "National Parks"	Wed.: Reading guide with study questions (counts toward participation)
<b>Week 2</b> 8/29 and 8/31	Measuring wellbeing, utility-maximizing individuals Mon. In-class exercise Social Welfare Functions Wed. In-class exercise Asymmetric information	Class 3 Mon.: Wheelan Chapter 5; Bardach 1-17 Class 4 Wed.: Wheelan Chapter 3	
<b>Week 3</b> 9/5 and 9/7	Economic models of collective action and markets Wed. In-class exercise Public goods.	Class 5 Wed.: Wheelan Chapter 4	Mon.: Labor day – No class Wed: Portfolio topic proposal ( <b>gold</b> )
<b>Week 4</b> 9/12 and 9/14	Economic models of collective action and markets; Public policy and politics  Mon. In-class exercise Monopoly	Class 6 Mon.: Wheelan Chapter 7 Class 7 Wed.: Wheelan, Chapter 8; Bardach, Appendix B Things Governments Do, 155-163	
<b>Week 5</b> 9/19 and 9/21	Measurement and descriptive statistics	Class 8 Mon.: Wheelan, Chapter 6 Class 9 Wed.: Wheelan Chapter 9 (intro, 9.1 and 9.2, pp. 291-313)	Mon.: Economics problem set ( <b>cardinal</b> )
<b>Week 6</b> 9/26 and 9/28	Measurement and descriptive statistics; Data sources and open data;	Class 10 Mon.: <b>In-class lab 1</b> Class 11 Wed.: Wheelan, Chapter 9 (9.3, pp. 313-319); Open Data Handbook, What is Open Data? Full Open Definition <a href="http://opendatahandbook.org/guide/en/">http://opendatahandbook.org/guide/en/</a> ;	Mon: Lynda Excel training 1 ( <b>gold</b> ) Wed.: Portfolio 1 ( <b>gold</b> ) Wed.: Reading guide with study questions (counts toward participation)
<b>Week 7</b> 10/3 and 10/5	Midterm review Midterm exam	Class 12 Mon.: Review for midterm Class 13 Wed.: Midterm exam	

## Course Schedule Breakdown

Week	Topics/Daily Activities	Readings and Homework	Deliverable/ Due Dates
<b>Week 8</b> 10/10 and 10/12	Application of measurement, descriptive statistics, data sources and open data; Visual display of quantitative information	Class 14 Wed.: <i>CQ Researcher</i> , "Housing Discrimination; Optional: Edward R. Tufte, <i>The Visual Display of Quantitative Information</i> , Chapters 1- 3. Available to read in my office and on reserve (hardcopy) at Leavey Library. Class 15 Mon.: <b>In-class lab 2</b>	Mon.: Reading guide with study questions (counts toward participation) Wed.: Lynda Excel training 2 <b>(cardinal)</b>
<b>Week 9</b> 10/17 and 10/19	Construction and use of price indexes; Hypothesis testing	Class 16 Mon.: Bureau of Labor Statistics Consumer Price Index Frequently Asked Questions <a href="http://www.bls.gov/cpi/cpifaq.htm">http://www.bls.gov/cpi/cpifaq.htm</a> Class 17 Wed.: Wheelan, Chapter 10, (10.1, 10.2, 10.5, and 10.6 pp. 328-343 and 352-361); The Complete Guide to A/B Testing, VWO, <a href="https://vwo.com/ab-testing/">https://vwo.com/ab-testing/</a>	Wed.: Housing segregation analysis problem set and memo <b>(cardinal)</b>
<b>Week 10</b> 10/24 and 10/26	Decision trees; Linear regression	Class 18 Mon.: Wheelan, Chapter 10, (10.4 348-352); Hammond, Keeney & Raiffa <i>Smart Choices</i> "Uncertainty" Class 19 Wed.: Wheelan, Chapter 11, (11.1 pp. 364-374)	Mon: Portfolio memo 2 <b>(gold)</b> Wed.: Lynda Excel training 3
<b>Week 11</b> 10/31 and 11/2	Multiple regression and application of multiple regression	Class 20 Mon.: Wheelan, Chapter 11, Section 11.2-11.5, pp. 374-402 Class 21 Wed.: Review Wheelan 11.4-11.5, Tom Fawcett, "Avoiding Common Mistakes with Time Series" <a href="http://www.svds.com/avoiding-common-mistakes-with-time-series/">http://www.svds.com/avoiding-common-mistakes-with-time-series/</a>	
<b>Week 12</b> 11/7 and 11/9	Correcting for pure time trends; Intro to CBA	Class 22 Mon.: Cawley, John, Chad Meyerhoefer, and David Newhouse. "The impact of state physical education requirements on youth physical activity and overweight." <i>Health economics</i> 16, no. 12 (2007): 1287-1301. Class 23 Wed.: Wheelan, Chapter 9, (9.4 pp. 319-322 and 12.1 and 12.5, pp. 405-419, 429-434)	Mon.: Reading guide with study questions (counts toward participation) Wed.: Portfolio memo 3 <b>(gold)</b>
<b>Week 13</b> 11/14 and 11/16	CBA and valuation and Application of CBA	Class 24 Mon.: Wheelan, Chapter 12, Sections 12.2 and 12.3, pp. 419-429 Class 25 Wed.: Anthony E. Boardman and Diane Forbes (2011). "A Benefit-Cost Analysis of Private and Semi-Private Hospital Rooms," <i>Journal of Benefit-Cost Analysis</i> . Volume 2, Issue 1, DOI: 10.2202/2152-2812.1050.	Wed.: Reading guide with study questions (counts toward participation)

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Week	Topics/Daily Activities	Readings and Homework	Deliverable/ Due Dates
<b>Week 14</b> 11/21 and 11/23	CAM	Class 26 Mon.: Hammond, Keeney, and Raiffa, Smart Choices, Chapter 6, "Tradeoffs"	Mon.: Decision analysis assignment ( <b>cardinal</b> ) Wed: Thanksgiving – No class
<b>Week 15</b> 11/28 and 11/30	Program Evaluation and Final Exam Review	Class 27 Mon Wheelan, Chapter 13, Section 13.3-13.4 pp. 456-473 Assigned reading: Choose one of the articles listed on Blackboard Class 28 Wed: Final exam review	Mon.: Final portfolio ( <b>gold</b> )
<b>FINAL</b> Dec 9, 2-4PM			Date: For the complete final exam schedule, consult the USC <i>Schedule of Classes</i> at <a href="http://www.usc.edu/soc">www.usc.edu/soc</a> .

## Statement on Academic Conduct and Support Systems

### Academic Conduct

Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Section 11, *Behavior Violating University* <https://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions/>. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, <http://policy.usc.edu/scientific-misconduct/>.

Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents to the *Office of Equity and Diversity* <http://equity.usc.edu/> or to the *Department of Public Safety* <http://capsnet.usc.edu/department/department-public-safety/online-forms/contact-us>. This is important for the safety of the whole USC community. Another member of the university community – such as a friend, classmate, advisor, or faculty member – can help initiate the report, or can initiate the report on behalf of another person. *The Center for Women and Men* <http://www.usc.edu/student-affairs/cwm/> provides 24/7 confidential support, and the sexual assault resource center webpage [sarc@usc.edu](mailto:sarc@usc.edu) describes reporting options and other resources.

### Support Systems

A number of USC’s schools provide support for students who need help with scholarly writing. Check with your advisor or program staff to find out more. Students whose primary language is not English should check with the *American Language Institute* <http://dornsife.usc.edu/ali>, which sponsors courses and workshops specifically for international graduate students. *The Office of Disability Services and Programs* [http://sait.usc.edu/academicsupport/centerprograms/dsp/home\\_index.html](http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html) provides certification for students with disabilities and helps arrange the relevant accommodations. If an officially declared emergency makes travel to campus infeasible, *USC Emergency Information* <http://emergency.usc.edu/> will provide safety and other updates, including ways in which instruction will be continued by means of Blackboard, teleconferencing, and other technology.