

School of Public Policy  
George Mason University  
Spring 2015

## Managerial Economics and Policy Analysis (PUBP 720)

### PRELIMINARY SYLLABUS

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"I can't believe *that!*" said Alice.  
"Can't you?" the Queen said in a pitying tone. "Try again: draw a long breath, and shut your eyes."

Alice laughed. "There's no use trying," she said, "one *can't* believe impossible things."  
"I daresay you haven't had much practice," said the Queen. "When I was your age, I always did it for half-an-hour a day. Why, sometimes I've believed as many as six impossible things before breakfast."  
From *Through the Looking Glass*, by Lewis Carroll.

"I know not 'seems'."

From *Hamlet*, Act I, Scene 2, by William Shakespeare.

This course introduces the sometimes hard-to-believe, but frequently useful and always aiming-to-be-precise, world of microeconomic theory and its application to policy analysis. The theoretical topics include consumer choice, production and firm behavior, factor (labor and capital) markets, market equilibrium and interactions, market failures, and basic welfare economics. The assumed context is usually a "mixed economy" with market (price-based) allocation of most goods and services but also a significant role for government intervention. While the quantity and difficulty of the material dictate an emphasis on theory, we will illustrate important principles with public policy examples. The course serves both as part of the core MPP curriculum and as a bridge into doctoral-level economic theory.

### Learning Outcomes

The main goal of this course is to enable students to use the basic tools and vocabulary of microeconomic theory as crucial inputs in the evaluation of public policies. For the purposes of this course, the most important aspect of policy evaluation we will consider is the theoretical prediction of the effects of a policy on one or more outcome variables. But the course also aims to develop understanding of the normative arguments used, especially by economists, as the basis for policy recommendations. Unfortunately, the course will only refer in passing to the crucial third aspect of policy evaluation – empirical estimation of the magnitude of policy impacts – which is the main topic of courses on statistics, econometrics, program evaluation, and several applied fields of economics.

To take a recent example, we could ask the following set of questions:

- Does a reduction in the payroll tax for new hires (a US policy from 2010-2012) raise employment?
- How are wages affected by the tax reduction?
- How is the employment of incumbent workers affected?
- How large are the effects, and on what factors do the magnitudes of the effects depend?
- Should the policy be adopted?

The analytical tools of economic theory you will learn in this course cannot alone answer these questions, but they can provide predictions about the directions of the effects and some indications of the magnitudes. The tools can also help to clarify the factors determining the answer to the last question in this list – the normative question. These tools are frequently used in policy discussions, and they serve to guide the empirical research necessary to determine whether such effects exist in the real world.

Even for students who do not intend to carry out their own policy analysis and evaluations, understanding the contributions and viewpoints of economists is essential for participating in almost any policy discussion. The material in this course can be viewed as an introduction to the vocabulary and repertoire of arguments employed by economists. Furthermore, we will discuss some of the limitations and criticisms of the theory that are important for anyone involved in policy to know.

### **Requirements and Organization**

Pre-requisites for the course include the GMU SPP Math Camp (or permission of the instructor) and completion of the GMU SPP math tutorials (both <http://policy.gmu.edu/economicstutorial> and <https://sites.google.com/site/sppmathcamp/>) before the beginning of the semester. Neglecting mathematical preparation will make this course risky and unproductive.

Course grades will be based on the following components:

1. Homework to be solved on-line (20%)
2. Mid-term Exam (20%)
3. Policy Brief (15%)
4. Quality of class participation (5%)
5. Final Exam (40%)

Regular homework assignments will be made available through the virtual learning tool MyLab during the term. To register for Spring 2015 Microeconomics:

1. Go to [pearsonmylabandmastering.com](http://pearsonmylabandmastering.com)
2. Under Register, click Student.
3. Enter the course ID (earle07425), and click Continue.
4. Sign in with an existing Pearson account or create an account:
  - If you have used a Pearson website, enter your Pearson username and password. Click Sign in.
  - If you do not have a Pearson account, click Create. Write down your new Pearson username and password to help you remember them.
5. Select an option to access your instructor's online course:
  - Use the access code that came with your textbook or that you purchased separately from the bookstore.
  - Buy access using a credit card or PayPal.
  - If available, get 14 days of temporary access. (Look for a link near the bottom of the page.)
6. Click Go To Your Course on the Confirmation page. Under MyLab & Mastering New Design on the left, click Spring 2015 Microeconomics to start your work.

To keep everything together, I also use this website as the course homepage for announcements, document sharing, and discussion board. The homework tool provides a number of innovative aids, including instant feedback, the option to work through similar problems, and links to the relevant section of the E-text. It also allows multiple attempts on each question; see below. It will be much easier to do the homework if you have carefully read the relevant textbook chapters. I also recommend that you solve the problems in the Study Guide section of MyLab, many of which are similar to those in the homework; many students find it most productive to first read the chapter, next work through the relevant Study Guide, and only then turn to the homework. You may work on and discuss the homework in a group prior to submitting your answers, and you may also discuss them with each other using the Discussion

Board I have set up on the course (MyLab) website, but – in your own interest – the answers you submit should reflect your understanding of the question.

The purpose of the homework is to help you learn the basic material and give you the opportunity to work through policy problems with actual numbers; the latter usually involves some tedious arithmetic, but this is bread-and-butter for policy economists, and even if your ambitions lie elsewhere it is valuable to have a taste of carrying out such analyses. I have organized the homework so that you are permitted 3 attempts for most questions (most open-ended questions; you are permitted only 1 for true-false, and only 2 for some multiple choice). For full credit, the homework questions must be correctly answered by the deadline each week; after the deadline you can still work but there will be a 20% penalty on each late answer (simply to provide some incentive to keep up with homework). When calculating the contribution of the homework to the final grade, I will drop the lowest score to take into account sickness, busyness, or simply a “bad week.” The assignment will usually be available and you can start working for a week before a Friday 10 p.m. deadline.

The exams will include questions to test your ability to apply the theoretical tools. To help with exam preparation and give you more opportunities with applications, sample problems will be distributed in advance, and some class time will be set aside to discuss any questions on them and to review the material. Exams are closed book, closed notes; the course involves little or no rote memorization, but emphasizes internalization of the logic. The exams are designed to last 90 minutes but you will be permitted the full class period (150 minutes). The final exam is cumulative.

The Policy Brief should be carried out in groups of 2-3 students. You must let me know your group membership in class by the fourth week of the semester; anyone unaffiliated at that point will be randomly assigned. Guidelines for the brief will be made available by the second week. The briefs will be presented at the end of the semester.

Questions and discussion during class are strongly encouraged as is providing feedback to the instructor.

### **How can you succeed in this course?**

For nearly all students, the answer is simple: “By really trying.” Many students consider PUBP 720 demanding, and some consider it extremely demanding. This is not because the material itself is extraordinarily difficult, and indeed much of it is common sense and implicit (and sometimes explicit) in popular articles on economic policy issues that you have been reading all your adult lives. But economic theory does involve what for many is a new way of thinking – very carefully – through the logic of an argument. We always start from careful statement of assumptions (frequently hard-to-believe) and work step-by-step to precise conclusions about behavior (usually more believable).

To become comfortable with this clear way of thinking – without ‘seems’ – requires a weekly average of at least 6-8 hours of preparation outside class for most students. For some students, 15-18 hours per week may be necessary. This time includes reading the assigned chapter prior to lecture, reviewing notes on lectures and class discussions, re-reading – sometimes several times – the textbook, and repeatedly solving problems to test understanding. The good news is that the effort has a high payoff, for understanding economic reasoning is essential for anyone involved even tangentially in public policy, and mastering it is invaluable for anyone who aspires to be a policy maker.

One of the best bits of advice I can give you is to form a study group that meets regularly (ideally, weekly) from the beginning of the semester to discuss the material in the book, lectures, and problems. If you have difficulty finding study group partners, let me know, and I’ll try to match you with others.

The design of this course does not assume you have studied any microeconomics before. But it does assume that you are doing all of the following:

- reviewing and refreshing mathematical tools prior to and throughout the semester
- reading the book thoroughly prior to lectures in class; reviewing the material later
- solving homework problems and using the on-line resources regularly
- asking me questions about the material – in class, in office hours, by appointment, over email – whenever you have them
- behaving as mature graduate students who take responsibility for learning and who care much more about learning than grades (which are irrelevant for most graduate students)

The course assumes no fluency in calculus, but you should be comfortable with the basic concepts reviewed in the “math camp” and “math tutorials.” We will use notation from calculus because it is the professional standard and anyone with an MPP should be able to understand the basic concepts. The essential mathematics needed for the course include these basic concepts plus arithmetic, basic geometry (2-dimensional graphs), and basic algebra (solving simple equations, including 2-variable, 2-equation systems). Any students doubting their preparation in these areas should remedy them as quickly as possible during this semester or postpone this course until they are remedied.

### **Readings and MyEconLab**

The textbook is *Microeconomics* (2012), Robert Pindyck and Daniel Rubinfeld, Prentice Hall, 8<sup>th</sup> edition (referred to as “PR” below). Please also purchase (most likely available at an additional \$5 cost if you buy the package I order through the bookstore) an access code to MyLab, an on-line learning tool including study guides, practice problems, and homework I will assign. There is an unbound version of the book that is cheaper and I will order it from the bookstore, but you may be able to find a good deal for it on-line. To register, you will need to enter the access code you have purchased and the course ID (TBA) on the [www.pearsonmylab.com](http://www.pearsonmylab.com) website. Once registered, you will have access to the course website where assignments, readings, class notes, and discussion will be posted. I believe the site also permits you free access for a few weeks in case you think you might drop the course.

The subject matter of class meetings and readings will frequently overlap, and for some of the course the former will follow the latter rather closely. But they should be regarded as complements rather than substitutes in the production of knowledge in this course: this statement means that while there will be an incomplete overlap between readings and lectures, you are expected to know sections of the book that we do not have time to cover in class (if in doubt, you may always ask). Finishing the assigned reading prior to the class meeting will facilitate questions and discussion about the material.

The homework assignments, exams, and Policy Brief are also complementary: the homework is intended to help you learn the basics of the material, the exams give you the opportunity to apply and extend this knowledge, and the Policy Brief allows you to go a little deeper into a topic of your own choosing.

In case it's useful, there are also 2 copies of the text on reserve at the Arlington Library. They may be borrowed for 2 hours at a time. To borrow a copy, you will need to give the call number (HB172 .P53 2013) and your GMU ID to the library's circulation desk.

I will also discuss some policy applications of the theory in class, sometimes using the short articles included on the reading list below, but the choice of topics and articles will depend on current events and class progress. Although time scarcity unfortunately implies we cannot allocate much of our time budget to the empirical details of these applications, I will expect you to understand the theoretical analysis of the policies discussed in class.

## **Preliminary Schedule of Topics, Readings, and Assignments (subject to revision)**

Week 0 (Jan 19 is a holiday, so we don't have class): Getting set-up

"E-ducation: A long-overdue technological revolution is at last under way," *Economist* (Jun 29, 2013)

Homework 0 due Friday (Jan 23) at 10 p.m.

Week 1 (Jan 26): What is economics? Definitions, motivations, and basic market analysis

PR Chapters 1-2

"The oil price turnaround," *Washington Post*, January 5, 2015.

"Ban on paying donors for marrow may endure." (several sources)

"Alcohol policy: On the Floor," *Economist* (March 31, 2012)

Policy applications: price controls (ceilings and floors); the minimum price for alcohol in the UK

Homework 1 due Friday (Jan 30) at 10 p.m.

Week 2 (Feb 2): Consumer behavior

PR Chapter 2-3

"Cash to the poor - Pennies from heaven." *Economist*, Oct 26, 2013.

"NJ weights threat to water quality vs. development dollars." *WaPo*, Jan 5, 2014.

"The Truth about Food Stamps." *New Republic*, July 29, 2014.

<http://www.newrepublic.com/article/118877/experts-answer-your-questions-about-food-stamps-and-snap>

Policy applications: food stamps, income taxes, housing subsidies, rationing, policy tradeoffs

Can women (or men) "have it all"?

HW 2 due Friday at 10 p.m.

Week 3 (Feb 9): Demand

PR Chapter 4 (skim 4.6; read rest carefully)

"14 Ways an Economist Says: 'I love you'"

Policy applications: uses and abuses of consumer surplus in measuring the effects of policies on social welfare, the deadweight loss of Christmas

HW 3 due Friday at 10 p.m.

Week 4 (Feb 16): Uncertainty

Announce group membership in class.

PR Chapter 5 (skim 5.4)

Homework 4 due Friday at 10 p.m.

"What Fisker's Failure Says about Obama's Clean-Energy Programs." *Washington Post*, April 25, 2013, p. A9.

"Success for program that funded Solyndra." *Washington Post*, Dec. 31, 2014.

"The Economics of Bank Robbery: More Swagger than Swag." *Economist*, June 16, 2012.

"The Endowment Effect, Loss Aversion, and Status Quo Bias" by Daniel Kahneman, Jack L.

Knetsch, and Richard H. Thaler, *Journal of Economic Perspectives*, Vol. 5(1), 193-206 (2001).

"Economics Behaving Badly" by George Loewenstein and Peter Ubel, *New York Times*, July 14, 2010.

"The Nanny State's Biggest Test" in the *Economist*, (December 15, 2012).

Policy applications: investing in risky projects; crime and punishment

- Week 5 (Feb 23): Production and costs  
 PR Chapters 6, 7 (skim 7.6, 7.7, and Appendix; read rest), 14.1  
 Homework 5 due Friday at 10 p.m.  
 Sample midterm exam distributed.  
 “Report: Regulations increase the burden on manufacturers.” *Washington Post* (Aug 21, 2012)  
 Policy applications: R&D tax credit, small business loans, mandated benefits, regulatory costs
- Week 6 (March 2): Profit maximization and supply in competitive markets  
 PR Chapter 8  
 Midterm review  
 Policy applications: profit tax, entry barriers, do free markets minimize costs?  
 Homework 6 due Friday at 10 p.m.
- Week 7: Spring Break
- Week 8 (Mar 16): Midterm Exam (in class)
- Week 9 (Mar 23): Competitive market analysis  
 PR Chapter 9, 14.2  
 “Milking the farm bill for far too long.” By Charles Lane, *WaPo*, December 17, 2013.  
 “Tax breaks that broke.” *WaPo*, January 3, 2014.  
 “End ban on US crude oil exports?” *WaPo*, January 9, 2014.  
 “Industrial Policy: Best state in a supporting role.” *Economist*, Jan 18, 2014.  
 Policy applications: tax and subsidy incidence, energy subsidies, tariffs and quotas, quantity controls, transactions in human organs, export restrictions  
 Homework 7 due Friday at 10 p.m.
- Week 10 (Mar 30): General equilibrium and welfare  
 PR Chapter 16  
 Policy applications: conditions for free markets to achieve Pareto efficiency  
 Homework 8 due Friday at 10 p.m.
- Week 11 (Apr 6): Imperfect competition in output and input markets  
 PR Chapters 10, 11 (focus on 11.1 and 11.2), 14.3-4  
 “That turkey on your plate could use some more industry competition.” *WaPo*, Nov 22, 2013.  
 Policy applications: antitrust, mergers and acquisitions, regulation
- Week 12 (Apr 13): Externalities and public goods  
 PR Chapter 18 (skim 18.3 and 18.7; read rest)  
 “Infrastructure funding: Roads less travelled.” *Economist* (Oct 19, 2013)  
 “The Right Tax Now has the Right Time.” By L. Summers, *Washington Post* (Jan. 3, 2015).  
 “Climate change: While Congress sleeps, Barack Obama offers stopgap measures to slow global warming.” *Economist* (June 29, 2013)  
 “Markets for Pollution Allowances: What are the (New) Lessons?” By L. Goulder, *Journal of Economic Perspectives*, Vol. 27(1), 87–102 (2013).  
 “Companies and emissions: Carbon copy.” *Economist*, Dec 14, 2013.  
 Policy applications: pollution, congestion, public transport, theory of the “2<sup>nd</sup> best”  
 Homework 9 due Friday at 10 p.m.

Week 13 (Apr 20): Asymmetric information

PR Chapter 17

Homework 10 due Friday at 10 p.m.

Sample final exam distributed

Deadline for optional submission of draft Policy Brief to receive comments: Tuesday 10 pm  
“Medicaid Coverage Found to Boost ER Use.” *WaPo*, January 2014.

Policy applications: health insurance, incentive pay in public and private organizations

Week 14 (Apr 27): Presentations of Policy Briefs

Policy Brief due Apr 27 at noon.

Week 15 (May 4): Possible topic make-up; review for final exam

May 11: Final exam (in class)

### **Other readings**

Becker, Gary S., “Nobel Lecture: The Economic Way of Looking at Behavior.”

*Journal of Political Economy*, Vol. 101(3), 385-409, June 1993.

Levine, David F., “How Economists View Policy.” *Democracy*, Vol. 3(3), 83-93, 1983.

Schelling, Thomas C., “Economic Reasoning and the Ethics of Policy.” *Public Interest*, Vol. 63, Spring 1981.

### **Academic Accommodation for a Disability**

If you are a student with a disability and you need academic accommodations, please see me and contact the Disability Resource Center (DRC) at (703) 993-2474. All academic accommodations must be arranged through the DRC as early as possible in the term.

### **SPP Policy on Plagiarism**

The profession of scholarship and the intellectual life of a university as well as the field of public policy inquiry depend fundamentally on a foundation of trust. Thus any act of plagiarism strikes at the heart of the meaning of the university and the purpose of the School of Public Policy. It constitutes a serious breach of professional ethics and it is unacceptable. Plagiarism is the use of another’s words or ideas presented as one’s own. It includes, among other things, the use of specific words, ideas, or frameworks that are the product of another’s work. Honesty and thoroughness in citing sources is essential to professional accountability and personal responsibility. Appropriate citation is necessary so that arguments, evidence, and claims can be critically examined. Plagiarism is wrong because of the injustice it does to the person whose ideas are stolen. But it is also wrong because it constitutes lying to one’s professional colleagues. From a prudential perspective, it is shortsighted and self-defeating, and it can ruin a professional career. The faculty of the School of Public Policy takes plagiarism seriously and has adopted a zero tolerance policy. Any plagiarized assignment will receive an automatic grade of “F.” This may lead to failure for the course, resulting in dismissal from the University. This dismissal will be noted on the student’s transcript. For foreign students who are on a university-sponsored visa (eg. F-1, J-1 or J-2), dismissal also results in the revocation of their visa. The SPP policy on plagiarism is supplementary to the George Mason University Honor Code; it is not intended to replace it or substitute for it.