

**Public Policy 558 Economic Analysis in the Practice of Public Policy  
Winter 2020  
University of Michigan, Ford School of Public Policy**

Instructor: Kevin Stange (kstange@umich.edu)  
Office hours: Monday & Wednesday 4:00-5:00 (Signup via Google calendar)

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Office Hours: TBD

Lecture: Monday & Wednesday 2:30-3:50pm, 1110 Weill Hall  
Sections: Fridays 2:30-3:50pm, 1110 Weill Hall  
Final Exam: Wednesday, April 29 1:30 pm - 3:30 pm in 1110 Weill Hall

### **Overview**

A continuation of PubPol 555 (Micro A), this course will deepen students' understanding of key economic concepts and principles and – importantly – apply them to the practice of policy analysis. Students will thus gain applied policy analysis skills through an economic lens, focusing on the efficiency and equity consequences of resource allocation, regulation, and other policy interventions. We will develop and hone an array of tools, including graphical analysis, cost-benefit and cost-effectiveness analysis, sensitivity analysis, and different approaches to valuation. We will apply these tools to specific applications in a handful of public policy domains including the environment, early childhood and education, labor markets, trade, crime, and transportation. Throughout, the course will focus on the skills and approaches that public policy professionals use in practice. In fact, we'll see several examples of economic analysis being done by or used by our own Ford alumni!

### **Learning objectives**

In this course, students will develop the knowledge and skills to be critical consumers and producers of economic analysis. Specifically, students will be able to

- Gain facility and comfort employing the tools of economic analysis to evaluate alternative real-world public policies;
- Understand the key market failures motivating government involvement and be comfortable applying graphical and mathematical analysis to each market failure and related interventions;
- Identify and describe the key components of a cost-benefit analysis and conduct a simple cost-benefit analysis of a real public policy problem;
- Critically assess economic analyses conducted by others. We will teach you to judge whether a given analyses constitutes a firm basis for policy decisions. This should serve you in your future role as a policy or business analyst, researcher, policy-maker, manager, or voter;

**Prerequisites:** This course requires successful completion of the fall-semester course PP 555 (Microeconomics A) or equivalent. We will use Excel in many of our assignments (and the final project), so some familiarity with it will be helpful, but not assumed. We will teach you everything you need to know on this front.

## Section

Emily will teach weekly discussion sections. Sections are intended to review material introduced in the lectures. Attending section is valuable both to reinforce and to further investigate material presented in lecture. Section attendance is strongly recommended, but not required. Weekly section meetings will be held Fri Jan 17 through Fri April 17 (inclusive), excluding winter break week.

## Readings

All readings and other course assignments will be posted on the Canvas course website. There is not a single textbook that is appropriate for the scope of the course. Thus readings include short excerpts from various text books on microeconomics, public finance, and cost-benefit analysis, as well as a variety of articles from journals, newspapers, and economic reports. We will also suggest specific sections of Stevenson and Wolfers' book that you should review. I highly recommend skimming assigned readings before class, and reading in greater depth immediately after class, the subsections on which the lecture focused.

[LINK TO UP-TO-DATE READING LIST ON DRIVE](#)

## Course Outline

### Part I: Introduction and Welfare Analysis (Jan 8-22)

We will review the basic tools of welfare analysis, as introduced in Micro A: consumer and producer surplus, efficiency and equity, and incidence. We'll then apply these tools to assess the consequences of subsidies, taxes, and other market regulations.

*Applications: Subsidies for childcare and retirement; Incidence of taxes on work; Incidence of 2018 trade tariffs.*

*Economic tools: Welfare analysis; Graphical analysis; Incidence analysis.*

### Part II: Three Roles for Government (Jan 27-Feb 24)

Three major roles of government are to correct for externalities, provide public goods, and overcome asymmetric information. We'll examine how to assess the optimal government response in the face of these market failures. In this section we will also discuss how economic activity is measured, as doing so is a prerequisite for being able to assess the economic consequences.

*Applications: Pollution and climate change; Innovation and patents; Unemployment insurance, health care insurance, flood insurance; Housing; Measurement of economic output, unemployment, and inflation.*

*Economic tools: Corrective taxation; Optimal public goods provision; Optimal insurance.*

### Part III: Evaluating Policy Alternatives (Mar 9-Mar 30)

In the second half of the course, we will develop specific tools to evaluate the economic consequences of policy alternatives. We'll start by expanding the cost-benefit framework introduced in Micro A to measuring the consequences of policy alternatives relative to the status quo. We'll introduce and discuss the strengths and limitations of different approaches to evaluation: cost effectiveness, cost-benefit analysis, and analysis of the marginal value of public funds.

*Applications: Clean Air Act; Adaptation to climate change in developing countries; Early childhood and secondary education; Transportation infrastructure.*

*Economic tools: Cost effectiveness; Cost-benefit analysis; Discounting and rate-of-return analysis.*

#### Part IV: Valuation and Nuts and Bolts of Economic Analysis in Practice (April 1- April 20)

The course concludes by working through the numerical estimation of costs and benefits that is included in real-world policy analysis. Where do the numbers that go into an economic analysis come from? How much certainty do we have about them and what do we do about the uncertainty? We will also hear from a guest speaker that leads such economic analysis for the Environmental Protection Agency.

*Applications: Public works programs; Govt-provided childcare; Employment and training programs; Fuel economy standards; Natural resources; The Exxon Oil Spill; Safety regulations.*

*Economic tools: Demand curve estimation; Sensitivity analysis; Revealed preference and hedonic models.*

### **Course Components**

Your course grade will be based on four components, equally weighted.

- Homework assignments (6)
- Case exercise (work equivalent to 2 homework assignments)
- Midterm exam
- Final exam (mostly not cumulative)

#### Homework Assignments (25%)

There will be six regular problem sets (due dates TBA). These are designed to help you learn how to apply the material presented in class to an actual economic analysis. They will be oriented as much as possible around an economic analysis of a single policy problem/topic, so you can think of each one as a “mini case.” You are encouraged to discuss course material, including problem sets, with other students. However, you are expected to turn in your own individual solutions for each assignment. In fairness to those who complete assignments on time, late problem sets will not be accepted and will receive a zero grade. Please turn in assignments via Canvas 15 minutes prior to the start of lecture on the day they are due.

Problem sets are graded on the following four-tier scale: 1) check-plus: all problems completed, few errors (10/10); 2) check: all problems completed, numerous errors OR almost all problems completed, few errors (8/10); 3) check-minus: almost all problems completed, numerous errors (6/10); 4) no credit (0/10): largely incomplete. Students that complete the entire problem set and put forth their best efforts are well-positioned to receive full credit.

#### Case Exercise (25%)

There will be a benefit-cost analysis case exercise that you’ll work on for the last four weeks of the course. You should think of this as taking the place of and requiring an equivalent amount of work as about two regular homework assignments. This will be done in small groups of 3 students. This project is meant to give you the opportunity to apply the economic principles and tangible methods of evaluation we presented in class to a specific policy decision. This assignment will be due on Wednesday, April 22, at 5 p.m. Please submit the project to as a single pdf file and an Excel spreadsheet to Canvas.

### In-class Midterm (25%) and Final Exam (25%)

The midterm exam will test the material covered by the first four problem sets. The final exam will cover all material in the class, but will focus much more heavily on material presented since the midterm. Some questions will also related to the case exercise.

The midterm will be held in class during our regular meeting time on Wed., Feb. 26. The final exam will be held in our regular classroom at the University-assigned time slot: Wed., April 29, 1:30 pm - 3:30 pm.

Both exams are closed-book. No notes or other materials will be allowed. You need only writing implements and a calculator. Please note that there will be no make-up exams. Students absent from either of the exams will receive a failing grade for the class.

Any requests for grade changes on any assignment must be submitted in writing (preferably via email to the GSI). Your request must provide a detailed rationale behind your request for a re-evaluation of the grade, and must refer specifically to the answer key provided in your argument for a grade revision.

### **Communication**

All course materials will be posted on the Canvas website. Announcements may also be sent to your e-mail accounts from the Canvas site.

### **Laptops**

To keep us focused on the class, laptop use will not be permitted during class unless for a specific educational purpose you discuss with me in advance. I will distribute copies of overhead slides for you to take notes on and will post a pdf of the slides after lecture.

### **Clickers**

We will use i>clickers during class to facilitate discussion and to provide feedback to me about your understanding of the material. You can purchase one from the UofM Computer Showcase in the Student Union or North Campus for \$28 (used) or \$38 (new). You will most likely need these starting in Lecture 2.

### **Accommodations**

If you need an accommodation for a disability, please let me know as soon as possible. (Of course if a problem arises during the semester, you should see me as soon as you can). Some aspects of this course maybe modified to facilitate your participation and progress. As soon as you make me aware of your needs, we can work with the Office of Services for Students with Disabilities to help us determine appropriate accommodations. I will treat any information you provide as private and confidential.

### **Ford School Academic Expectations**

Please review the discussion of the Ford School's statement on academic integrity, student mental health and wellbeing, inclusivity, and expectations for communications, attendance, assignments, and technology here: <http://fordschool.umich.edu/academics/expectations>

## **Diversity and Inclusivity**

Members of the Ford School community represent a rich variety of backgrounds and perspectives. We are committed to providing an atmosphere for learning that respects this diversity. While working together to build this community we ask all members to:

- share their unique experiences, values and beliefs
- be open to the views of others
- honor the uniqueness of their colleagues
- appreciate the opportunity that we have to learn from each other in this community
- value one another's opinions and communicate in a respectful manner
- keep confidential discussions that the community has of a personal (or professional) nature
- use this opportunity together to discuss ways in which we can create an inclusive environment in Ford classes and across the UM community

We also recognize the importance of advancing diversity, equity, and inclusion in the study and practice of economic analysis specifically. Sometimes DEI issues will be central to the topic, such as when we assess policies that have distributional consequences. Instead of confining this critical and complicated topic to one lecture, these issues will be integrated throughout the semester. Within each lecture, I will strive to raise questions related to diversity, equity, and inclusion as it may be relevant to the particular lecture topic. I also encourage you to propose questions, topics, and examples from your experience throughout our time together.

## **Student Mental Health and Wellbeing Resources**

The University of Michigan is committed to advancing the mental health and wellbeing of its students. We acknowledge that a variety of issues, such as strained relationships, increased anxiety, alcohol/drug problems, and depression, directly impacts students' academic performance. If you or someone you know is feeling overwhelmed, depressed, and/or in need of support, services are available. For help, contact Counseling and Psychological Services (CAPS) and/or University Health Service (UHS). For a listing of other mental health resources available on and off campus, visit: <http://umich.edu/~mhealth/>.

Class Date			Lecture number	Assignment	Lecture Topic	Policy Application	Theory/Textbook readings	Required Applied Readings
Jan	8	W	1		Introduction to main ideas of class		Review SW Chapter 7 "Welfare and Efficiency"	Ip, Greg. "In Defense of the Dismal Science" Wall Street Journal, August 25, 2017. Economist, "Why doing a cost-benefit analysis is harder than it looks" April 24th, 2014.
Jan	13	M	2		Welfare analysis	Consumer and producer surplus as measure of welfare	Gruber Chapter 2 "Theoretical tools of public finance" [the utility maximization + budget constraint will be new - just try to get the gist. Focus more on the other sections] Just review: SW Chapter 6 "When Govts Intervene in Markets"	
Jan	15	W	3	1 out	Welfare analysis	Taxes and subsidies: Universal Paid Family Leave in DC	Gruber Chapter 19 "Tax Incidence"	<a href="https://wamu.org/story/16/12/20/debate-d-c-s-poorest-neighborhoods-paid-family-leave-help-hurt/">https://wamu.org/story/16/12/20/debate-d-c-s-poorest-neighborhoods-paid-family-leave-help-hurt/</a>  Economic and Policy Impact Statement: Universal Paid Leave Amendment Act of 2016 (B21-415) (Focus on Section 4 which includes the economic model of who bears the incidence of the tax)  Optional: Fiscal impact statement of Universal Paid Family Leave in DC, 2016.
Jan	20	M	No Class MLK day					
Jan	22	W	4		Welfare analysis	The 2018 Trump Tariffs	Amiti, Mary, Stephen J. Redding, and David E. Weinstein. 2019. "The Impact of the 2018 Tariffs on Prices and Welfare." Journal of Economic Perspectives, 33 (4): 187-210. FOCUS THROUGH PAGE 201	OPTIONAL <a href="https://economics.princeton.edu/2019/10/30/the-impact-of-the-2018-trade-war-on-u-s-prices-and-welfare/">https://economics.princeton.edu/2019/10/30/the-impact-of-the-2018-trade-war-on-u-s-prices-and-welfare/</a> OPTIONAL <a href="https://econofact.org/the-costs-of-u-s-tariffs-imposed-since-2018">https://econofact.org/the-costs-of-u-s-tariffs-imposed-since-2018</a>
Jan	27	M	5	1 in, 2 out	Externalities	Motor vehicles	Gruber Chapter 5 "Externalities: Problems and Solutions" SW Chapter 10.1-10.3	Congressional Budget Office (CBO) "Alternative Approaches to Funding Highways" (March 2011) Morris, Eric (2011). "Raising MPG Standards: The Second-best Solution to a Gas Tax Increase." Freakonomics blog: Aug 18
Jan	29	W	6		Externalities	Ann Arbor Airport Runway Extension	Pindyck and Rubinfeld (2013) Section 18.2 "Ways of Correcting Market Failure" pp.667-669	Ann Arbor Observer - "Ready for Takeoff"  Planet Money Pigou Club Nov 19, 2019 <a href="https://www.npr.org/transcripts/774494691">https://www.npr.org/transcripts/774494691</a>  OPTIONAL B. Murray and N. Rivers. 2015. "British Columbia's Revenue Neutral Carbon Tax: A Review of the Latest 'Grand Experiment' in Environmental Policy." NI WP 15-04. Durham, NC: Duke University OPTIONAL The Economist magazine (2015). "The Best is the Enemy of the Green." Dec 5
Feb	3	M	7	2 in, 3 out	Public Goods	Innovation, science, and patents for drugs	Gruber Chapter 7 "Public goods"	
Feb	5	W	8		Public Goods	Innovation, science, and patents for drugs	Review of monopoly pricing. Any book is fine. Some possibilities: SW 14.2-14.3, also 15.1 on cost curves OR Pindyck and Rubinfeld Chapter 10 "Market Power and Monopoly" OR Watch: Khan academy video on monopoly	1. Klein, Ezra 2015. "What happened to Bernie Sanders's best idea?" <a href="https://www.vox.com/2015/9/25/9397069/bernie-sanders-drug-prices">https://www.vox.com/2015/9/25/9397069/bernie-sanders-drug-prices</a> . 2. Knowledge Ecology International 2011 Report Medical Innovation Fund.pdf 3. Stiglitz, Joseph (2012). "Shift From Patents to Prize-Based System Will Revolutionise Research and Development." The Economic Times  OPTIONAL BACKGROUND: WHO report: <a href="https://www.who.int/phi/CEWG_Report_5_April_2012.pdf">https://www.who.int/phi/CEWG_Report_5_April_2012.pdf</a>
Feb	10	M	9		Insurance (intro to unemployment)	Unemployment Insurance	Gruber Chapter 12 "Social Insurance", Gruber Chapter 14 "Unemployment Insurance"	
Feb	12	W	10	3 in, 4 out	Insurance: adverse selection	Unemployment Insurance	Be sure to read Gruber Chapters 12 and 14	Stone and Chen, 2014. "Introduction to Unemployment Insurance" CBPP  Deeper background (Optional): Unemployment Insurance Reform: Evidence-Based Policy Recommendations Christopher J. O'Leary Stephen A. Wandner, 2018, Unemployment Insurance: Strengthening the Relationship between Theory and Policy Walter Nicholson and Karen Needels, Journal of Economic Perspectives, 2006.
Feb	17	M	11		Insurance: moral hazard CRLT Mid-semester feedback	Flood insurance	No new readings	*OPTIONAL: NPR Planet Money podcast (2013). "Why Is the Government in the Flood Insurance Business?" Lipton, Eric et al (2012). "Flood Insurance Faces New Stress." New York Times Nov 13 Anderson, Jenny (2013). "Outrage as Homeowners Prepare for Substantially Higher Flood Insurance Rates." New York Times July 28 Karlin, Sam (2016). "Louisiana Residents Without Flood Insurance Face Uncertainty." Reuters Aug 22 here Boghani, Priyanka (2016). "FEMA Announces Reforms to National Flood Insurance Program" Detroit Public Television Frontline. May 24
Feb	19	W	12		Measurement of economic activity	GDP, inflation, unemployment	Review Khan academy videos on how GDP, unemployment, and inflation: <a href="https://www.khanacademy.org/economics-finance-domain/macroeconomics/macro-economic-indicators-and-the-business-cycle">https://www.khanacademy.org/economics-finance-domain/macroeconomics/macro-economic-indicators-and-the-business-cycle</a> At minimum read through the "Lesson summary" for the GDP, Limitations of GDP, Unemployment, and Inflation sections.  Deeper background (optional, for those interested) BEA 2015, "Measuring the Economy: A Primer on GDP and the National Income and Product Accounts"	Brynjolfsson Collis 2019 "How Should We Measure the Digital Economy?" Harvard Business Review <a href="https://hbr.org/2019/11/how-should-we-measure-the-digital-economy">https://hbr.org/2019/11/how-should-we-measure-the-digital-economy</a>  Piketty Saez Zucman 2018. Economic growth in the United States: A tale of two countries <a href="https://equitablegrowth.org/economic-growth-in-the-united-states-a-tale-of-two-countries/">https://equitablegrowth.org/economic-growth-in-the-united-states-a-tale-of-two-countries/</a>
Feb	24	M	13	4 in	Review for Midterm		No new readings	
Feb	26	W			MIDTERM			
Winter Break								

