

Public Policy 303: Microeconomic Tools for Policy Analysis
Duke University, Sanford School of Public Policy
Fall 2020

Class Time: Monday/Wednesday 10:15-11:30 AM

Professor Matthew S. Johnson

Course Objectives

Public Policy 303 is a course in microeconomics for students majoring in Public Policy. We will draw lots of graphs, use (some) math, consider many different contexts, but all the while be rooted in one central premise: that individuals face tradeoffs regarding how they allocate scarce resources. We will use this principle to develop a “model” of human behavior, which we will then use to develop a set of tools and a unified framework to help us understand when voluntary interactions between individuals promote the social good, when they do not, and what policy can do about it.

By the end of the course, my primary goal is that you will understand how the tools of microeconomics are a critical input into understanding some of the biggest challenges our world faces today, and how you can apply these tools to analyze how public policies can be designed to effectively address them. My secondary goal is to give you an introduction to state-of-the-art research that economists are conducting to provide insight into how public policy can address social issues. Finally, I hope you leave this course with a sense of how microeconomic principles can help you better understand the world around you and to make better decisions in your everyday lives.

Let’s First Acknowledge That Everything is Crazy Right Now

Needless to say, this is an unprecedented time for us all. As we all adapt to learning in a virtual/hybrid environment during a pandemic, I will just note that aspects of this syllabus will very likely change during the first few weeks of the semester. Similarly, I recognize that unusual circumstances may come up for you all, and I am willing to adapt the course broadly and to work with each of you individually as issues inevitably arise and circumstances change. We are in this together!

How to Reach Me

Email: matthew.johnson@duke.edu

Office Hours: Mondays 3:00-4:00 pm

Coffee Hour:* Thursdays 3:00 4:00 pm

Office Hours and Coffee Hour will be held via Zoom (links on Sakai site). As the semester progresses, I might start doing coffee hours at one of the tables between Sanford and Rubenstein in-person depending on how rates of COVID-19 progress on campus.

Coffee Hour is intended to make up for the lost opportunities for informal chats before and after in-person lectures. You can use this time as a regular office hour if you like, or come to chat about something you read in the news related to economics, brainstorm about internship ideas—whatever is on your mind that has even the loosest relation to the course.

Teaching Assistants (TAs)

Name	Email	Section Time	Office Hour
Brian Barnett	Brian.barnett@duke.edu	Tu 1:45–2:35 PM	Wed 4-5
Renzo Severino	Renzo.severino@duke.edu	Tu 12:00–12:50	Wed 2:30–3:30
Tyler Strobl	Tyler.strobl@duke.edu	TBD	Fr 9:30–10:30 AM

Course Structure

Monday lectures will be asynchronous: I will pre-record roughly 60 minutes of lecture material and post links to the videos on the course Sakai site by the Sunday evening before the scheduled lecture.

Wednesday lectures will be synchronous; if you are able, I expect you to attend them via Zoom. **If you are unable to attend Wednesday lectures synchronously, that is not a problem at all, but please let me know ahead of time so that we can plan accordingly.** All Wednesday lectures will be recorded and posted to the Sakai site.

Course Websites

We will use two online platforms for this course: **Sakai** (<http://sakai.duke.edu/>) and **Piazza** (which you can access through the Sakai site).

All assignments will be posted to the course's Sakai site, and that is where you will turn in your assignments.

We will use Piazza for discussions. You can use this space to ask questions about lecture material and problem sets; I encourage students to answer each others' questions (indeed, part of your grade will depend on it), and I will check it regularly.

Course Materials

Required Textbook: *The Economy: Economics for a Changing World*

The CORE Team, Oxford University Press, ISBN 9780198810247

This textbook is for sale at the Duke Bookstore for \$50 (a bargain!), or you can access the e-book for free (also a bargain!) at <http://www.core-econ.org>. I recommend that you purchase the textbook. Note that we are using *The Economy* and not the other textbooks at the CORE website.

Note that *The Economy* also includes units intended for an introductory course in macroeconomics. There is a lot of material in this book that we will not cover. We will only be covering certain units, and I will make explicit to you which you need to read for the course.

Additional Readings: In addition to the textbook, you will periodically be required to read **news articles** and **economics research papers**. These readings will be incorporated into class lectures and graded material. For

some of these papers you will only be required to read the introduction and other specific sections of the paper: I will indicate when that is the case. All additional readings will be posted to Sakai.

TA Discussion Sections

Each of you is assigned to a particular discussion section that meets once per week for 50 minutes. These sessions will be run by the TAs. Each section will start with group work, where you will work on a few problems together that will be graded. TAs will use the rest of the time to cover material related to the concepts discussed in class and/or review homework questions. You must attend the session in which you are registered unless you have special permission from me to attend a different session.

Course Requirements (i.e. Inputs Into Your Final Grade)

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| 1. Problem Sets / Writing Assignments: | 36% |
| 2. Group Video Assignment: | 6% |
| 3. TA Session quizzes / exercises: | 9% |
| 4. Midterm: | 15% |
| 5. Final Essay: | 25% |
| 6. Class Participation: | 9% |

1. Problem Sets / Writing Assignments:

There will be **seven** problem sets during the term. These will typically consist of a mix of conceptual, mathematical and graphing problems, as well as short essays. **Working in groups** on problem sets is encouraged, but each student must turn in his or her own assignment. Plagiarism will result in a grade of zero and is easier to detect than you think.

Each problem set will be graded and your lowest score will be dropped. Each problem set will have a specific due date and time. **No late problem sets will be accepted without approval in advance from the instructor** (and approval will be given only in very rare circumstances).

Each problem set will be posted to Sakai at least two weeks prior to its due date (under Sakai → Assignments tab), and you must upload your completed assignment in either PDF or Word format to the same tab on Sakai.

I strongly encourage you to type up your assignments, but writing them by hand and scanning your work is acceptable as long as your work is legible.

For problems in which you need to draw graphs or figures, you can take a few approaches:

- Draw the figures by hand, take a picture of them, and copy and paste the pictures straight into a Word document (or, convert the figures into a PDF, and merge the PDFs of your written answers with your figures).
- I have uploaded PPT slides with all the figures from the textbook units on Sakai under “Resources → Slides of figures.” You can amend the figures as needed in Powerpoint or another program for the purpose of the question.
- You can use online graphing software, such as [desmos.com/calculator](https://www.desmos.com/calculator).

2. **Group Video Assignment:**

A few weeks into the semester, you and a group of three other students will create a video that summarizes four economics research papers all centered around a policy-relevant microeconomics topic. Details forthcoming.

3. **TA Session quizzes / exercises:**

As described above, the beginning of each TA session will consist of you working on problems related to the lecture material. Your two lowest of these will be dropped.

4. **Midterm**

The midterm will be a take-home exam. It will be available on Sakai at 7:00 AM and will be due by 11:59 PM that night. The *tentative* date for this is **Monday October 12**.

5. **Final Essay**

There will be no final exam. Instead, each student will be required to write an essay that uses the tools learned in this course to critically analyze a particular market or good or service. Details forthcoming.

6. **Class Participation**

“Participation” can mean many things in this course; asking questions in lecture, posting questions/answers on the Piazza forum, and coming to office hours will count toward participation.

Note that during synchronous lectures I might occasionally cold call on students. This is not meant to be a scare tactic, but rather to encourage active learning for everyone (and can count toward your participation).

Classroom Inclusivity

There are a lucky few for whom the tools of microeconomic analysis come naturally. For the rest of us, the concepts we will cover in this course are challenging and may take several repetitions before they start to click. If something is unclear to you in class, chances are that it is also unclear to some of your fellow classmates. I encourage you to speak up in class when you have questions about the material.

It is my intent that students from all diverse backgrounds and perspectives be well-served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength and benefit. Please let me know ways to improve the effectiveness of the course for you personally, or for other students or student groups.

- If you have a name or set of pronouns that differ from what is on DukeHub, please let me know.
- If you feel like your performance in class is being affected by events outside of class in your personal life, please do not hesitate to come talk to me. Also remember that Counseling & Psychological Services (CAPS) is a great program that is always available to you.
- If someone (including me) says something in class that makes you feel uncomfortable, please talk to me about it.

Grading Policy

If you have a dispute over a grade on any assignment or exam, you may submit a regrade request **in writing, within 24 hours** of the assignment being returned (or, for in-class quizzes, within 24 hours of when the quiz takes place). You must accompany this regrade request with a written explanation as to why you think your work was mis-graded, or whether you believe a question was not worded correctly. Note that, when I receive a request for grade change for a specific question, your entire assignment or exam - not just the specific question/answer - will be graded again (since grading errors can happen in both directions!).

Final Course grades will be assigned as follows:

Grade	+		-
A	97-100%	93-96%	90-92%
B	87-89%	83-86%	80-82%
C	77-79%	70-72%	73-76%
D	67-69%	63-66%	60-62%
F	<=59%		

Actual grades will be rounded up based on their first decimal place (e.g. 89.4 = B+, 89.6 = A-).

If necessary, the final percentage earned in the course will be curved by adding the number of percentage points necessary to make the median score equal to 87%. For instance, if the median total grade of the class is 80% then 7% will be added to all scores.

Academic Integrity: aka Plagiarism and Cheating

Plagiarism is the use of others' work, without attribution, and it is a serious academic violation. The following are examples of plagiarism:

- Cutting and pasting material from the Internet into class submissions without quotation marks around the copied work, or without the complete reference for the quotation;
- Direct copying without giving credit;
- Paraphrasing without giving credit;
- Buying papers written by others;
- Fraud: inventing sources that don't exist;
- Including references that you've never read.

Cheating means submitting work that you didn't complete yourself (copying from others or having someone else complete an assignment for you.) While I strongly encourage you to work in groups to discuss problem sets, you **MUST** write your own answers. Evidence of plagiarism or cheating will result in a zero on the entire assignment, and potentially a failing grade in the course.

I expect you to adhere to the Duke University honor code as described in the Duke Community Standard. For more information, see <https://studentaffairs.duke.edu/conduct/about-us/duke-community-standard>

The Duke Compact

The Duke Compact recognizes our shared responsibility for our collective health and well-being. Please be reminded that by signing your name to this pledge, you have acknowledged that you understand the conditions for being on campus. These include complying with university, state, and local requirements

and acting to protect yourself and those around you. For complete language and updated policies, please visit [hCps://returnto.duke.edu/compact/](https://returnto.duke.edu/compact/).

Schedule of Lectures and Readings

*****This schedule may be subject to change and very likely will*****

*****Lectures shaded in orange will be held asynchronously*****

Textbook chapter	Lecture Date	Subject	Readings (to be completed <u>before</u> lecture)
Course Introduction	Monday, August 17	Introduction, class expectations, and syllabus	Watch Oriana Bandiera's video on what Economics is: https://voxeu.org/content/what-economists-really-do
Unit 3: Individual Decision-Making: Resolving Tradeoffs	Wednesday, August 19	Preferences; opportunity costs	CORE 3.0-3.3 Watch 20 minute asynchronous lecture video on production functions
	Monday, August 24	Feasible sets; Optimal Decision-Making *Economics in Action*: "how much is your kindergarten worth?*	CORE 3.4-3.5
	Wednesday, August 26	labor-leisure tradeoff; Income and Substitution Effects DISCUSSION: how to read an academic economics paper	CORE 3.6-3.7
	Monday, August 31	Other constrained choices: allocating budget to purchases goods + services	Washington Post, "This is Not Controversial: Bipartisan Group of Economists calls for carbon tax"
	Wednesday, September 2	Wrapping up Unit 3 DISCUSSION what does this model miss about human behavior?	CORE 3.8-3.11 Shah, A.K., Mullainathan, S. and Shafir, E., 2012. Some consequences of having too little. Science.

Unit 4: Social Interactions / Game Theory	Monday, September 7	Social Interactions ; Game Theory Basics	CORE 4.0-4.5
	Wednesday, September 9	Social Preferences GUEST SPEAKER: Mesay Gebresilasse	CORE 4.6-4.12 Bazzi, S., Fiszbein, M., & Gebresilasse, M. (2017). Frontier Culture: The Roots and Persistence of "Rugged Individualism" in the United States.
	Monday, September 14	Resolving social dilemmas	CORE 4.13-4.14
Unit 5: Power, Exchange and Institutions: Who gets what?	Wednesday, September 16	Evaluating Institutions and Outcomes; a model of bargaining	CORE 5.0-5.7
	Monday, September 21	A model of bargaining: continued Economic Opportunity in the United States	CORE 5.8-5.14 * Chetty, R., Friedman, J.N., Hendren, N., Jones, M.R. and Porter, S.R., 2018. The opportunity atlas: Mapping the childhood roots of social mobility
	Wednesday, September 23	Efficiency versus equity in the bargaining model Substantive inequality: The racial wealth gap Geographic variation in economic opportunity: Moving to Opportunity	*Peter Bergman, Raj Chetty, Stefanie DeLuca, Nathaniel Hendren, Lawrence Katz, Christopher Palmer, 2019, Creating Moves to Opportunity: Experimental Evidence on Barriers to Neighborhood Choice, Non-technical summary
	Monday, September 28	Q&A with Marianne Wanamaker about Collins and Wanamaker (2017) Neighborhood effects on economic opportunity, and their historical roots	* (INTRO ONLY): Derenoncourt, E., 2018. Can you move to opportunity? Evidence from the Great Migration. Collins, W.J. and Wanamaker, M.H., 2017. African American intergenerational economic mobility since 1880
Unit 6: The Labor Market and Incomplete Contracts	Wednesday, September 30	The firm; the employment relationship; principal agent problems	CORE 6.0-6.5
	Monday, October 5	The Efficiency Wage Model	CORE 6.6-6.11

	Wednesday, October 7	Why Have Wages Been Stagnant for Four Decades? Midterm review	TBD
	Monday, October 12	MIDTERM EXAM	
	Wednesday, October 14	Informal Discussion about Economic Policy	
Unit 7: Price-Setting Firms and Their Consumers	Monday, October 19		CORE 7.0-7.5
	Wednesday, October 21	Economics of the Meat Processing Industry in North Carolina: A Conversation with Charlie Clotfelter	see additional readings on Sakai
	Monday, October 26		CORE 7.6-7.8 Danielle Paquette, 2015, Why you should always buy the men's version of almost anything, Washington Post, December 22.
	Wednesday, October 28		CORE 7.8-7.13 More reading TBD
Unit 8: Price-Taking Firms, Competitive Markets, and (finally!) Supply and Demand	Monday, November 2	NOTE: THIS WEEK MONDAY'S LECTURE IS SYNCHRONOUS; WEDNESDAY IS ASYNCHRONOUS	CORE 8.0-8.5
	Wednesday, November 4		CORE 8.6-8.11
Unit 11: Markets adjusting to disequilibrium	Monday, November 9		CORE 11.0-11.3
	Wednesday, November 11	Taking stock: how competitive are most markets these days?	TBD
Market failures, externalities, and public policy	Monday, November 16		CORE 12.0-12.3

Tentative Schedule of Assignment Due Dates (may be subject to change, and very likely will be)

All Problem Sets will be posted on Sakai at least two weeks before the due date.

Assignment	<u>Due at 12:00 PM (noon) on Sakai, unless otherwise indicated</u>
HW 1 (+ Video Assignment)	Fri 9/4
Problem Set 2	Fri 9/18
Problem Set 3	Fri 10/2
Problem Set 4	Wed 10/7
Problem Set 5	Fri 10/30
Problem Set 6	Monday 11/9
Homework 7	Fri 11/13