# UEP 251: Economics for Planning and Policy Analysis Spring 2019

#### Professors

Mary Davis (Section 01: General focus) Urban and Environmental Policy and Planning Office location: 72 Professor's Row mary.davis@tufts.edu; 617-627-4719; Skype: medavis129

Brian Roach (Section 02: Environmental economics focus) Global Development and Environment Institute Office location: 44 Teele Ave. brian.roach@tufts.edu; 617-627-6787

#### **Teaching Assistants**

Allie Wainer, alliewainer@gmail.com Sean Hogan, sean.hogan609810@tufts.edu

#### **Class Meetings**

Lecture (required): Tuesdays/Thursdays 9-10:15am (TBD) Lab (optional): Monday 4:30-5:45pm (Tisch Library Data Lab)

#### **Office Hours**

Mary: TBD Brian: TBD Sean: TBD Allie: TBD

#### **Course Description**

UEP 251 is a required core course for graduate students in the department of Urban and Environmental Policy and Planning. This economics course covers the fundamentals of microeconomics, with a focus on real-world applications relevant to policy and planning. Each topic outlined in the syllabus will be paired with a case study grounded in current events, such as transportation, gender inequalities, and the minimum wage, to emphasize the applied context for understanding economics as a decision-making tool. We will highlight the many limitations of economic analysis, and explore the pros and cons of economics in modern society. The overall goal of this course is for students to become educated consumers of economic information, and the application of economics to the world of policy and planning.

Both sections will meet together during the first half of the semester leading up to the midterm and spring break. After spring break, the sections will break off into one that is more general policy and planning focused (-01 led by Professor Davis) and another that is centered on topics of environment and sustainability (-02 led by Professor Roach). Students must select and register for one of these sections, and attend and complete the deliverables of their respective sections during the second half of the semester. The course outline provides an overview of the

materials covered by the separate sections. All general course expectations and grading scheme are identical across the two sections.

## **Other Course Information**

A proficiency in basic algebra is required to take this class. No knowledge of more advanced mathematics, such as calculus, is needed. All students are expected to maintain a high standard of academic honesty according to the pamphlet "Academic Integrity at Tufts."

#### Labs

The optional Monday lab sessions are intended to provide a structured review of the material presented in class. We will review the material covered during the lecture, explore additional examples, as well as have time for Q&A. Attendance is not required, but it is strongly recommended for those students struggling with the concepts or math covered during the lecture. Please plan your schedules accordingly.

## **Course Textbook/Readings**

<u>Microeconomics in Context</u>, **4<sup>th</sup> Edition**, by Goodwin, et al., is the primary textbook for the course. All chapters covered in the class are posted on Canvas. A reserve copy is available at the Brown and White houses. All additional non-textbook readings will be also available on Canvas.

## **Student Assessment and Grading Policy**

*Two exams* – Worth 40% of final grade (20% each)

There will be two in-class exams that will take place before spring break and during the final exam period. Although the final exam is not cumulative, some concepts covered during the second half of the course will build upon previously-learned material. For that reason, a firm grasp of all the material will be needed to do well on the final exam.

## Six homework sets – Worth 42% of final grade (7% each)

A series of take-home assignments will be due in hardcopy form at the beginning of class on their respective due dates. The answer keys will be posted on Canvas immediately following class, and for this reason late assignments will NOT be accepted. While you are welcomed and encouraged to work in groups on homework assignments, <u>all final answers must represent</u> your own work.

#### Six quizzes – Worth 18% of final grade (3% each quiz)

Students will take in-class quizzes according to the schedule outlined in the syllabus. Quizzes will be administered at the beginning of class, and there is no makeup available for missed quizzes.

#### **Students with Disabilities**

Students with disabilities are assured that the Student Accessibility Services (SAS) office will work with each student individually to create access to all aspects of student life. Tufts is committed to providing equal access and support to all qualified students through the provision of reasonable accommodations so that each student may fully participate in the Tufts experience. If you have a disability that requires reasonable accommodations, please contact the Student

Accessibility Services office at accessibility@tufts.edu or 617-627-4539 to make an appointment with an SAS representative to determine appropriate accommodations. Please be aware that accommodations cannot be enacted retroactively, making timeliness a critical aspect for their provision.

Date	Торіс	Required	Due
	_	Readings	
Jan. 17	1: Introduction	Goodwin Chapters 1 and 7	
Jan. 22	1: Introduction	Pallotta case study and TED talk	
Jan. 24	2: Inequality	Goodwin Chapter 10	
Jan. 29	2: Inequality	Muñoz et al. 2015; Asante-Muhammed et al. 2016	
Jan. 31	3: Markets and Elasticity	Goodwin Chapter 3	
Feb. 5	3: Markets and Elasticity	Goodwin Chapter 4	HW 1/ Quiz 1
Feb. 7	4: Consumer Theory and Welfare	Goodwin Chapter 5	
Feb. 12	4: Consumer Theory and Welfare	Goodwin Chapters 7 and 8	
Feb. 14	5: Producer Theory and Pricing	Goodwin Chapter 15	
Feb. 19	5: Producer Theory and Pricing	TBD	HW 2/ Quiz 2
Feb. 21	NO CLASS (Monday schedule)		
Feb. 26	6: Market Structure	Goodwin Chapters 16 and 17	
Feb. 28	7: Macroeconomics	Macroeconomics in Context (Goodwin et al.), Chapter 13; Reynolds	
Mar. 5	8: Government Taxation	Goodwin Chapter 11	HW 3/ Quiz 3
Mar. 7	8: Government Taxation	Kuchler et al. 2004	
Mar. 12	New Economy lecture	TBD	HW 4/ Quiz 4
Mar. 14	In-class Midterm Exam		
		SPRING BREAK	

**Course Outline: Topics, Readings and Due Dates** 

Mar. 26	9: Transportation Economics	TBD	
Mar. 28	9: Transportation Economics	MBTA 2014	
		Pierce and Shoup 2013	
Apr. 2	10: Labor Economics	Goodwin Chapter 9	
Apr. 4	10: Labor Economics	Davis and Hoyt 2019	
Apr. 9	11: Cost-Benefit Analysis	Harris Chapter 7	HW 5/
_		_	Quiz 5
Apr. 11	11: Cost-Benefit Analysis	TBD	
Apr. 16	12: Housing Economics	TBD	
Apr. 18	12: Housing Economics	Sims 2007	
Apr. 23	13: Urban Economics	Brueckner Chapter 1	
_			
Apr. 25	13: Urban Economics	Jacobs Chapter 4;	HW 6/
		Freeman and Braconi	Quiz 6
		2004	
April 30	In-class Final Exam		

#### General Policy and Planning Section 01 (Professor Davis)

## Environmental Section 02 (Professor Roach)

Mar. 26	9: Economic Perspectives on the Environment	Harris Chapter 1; Krugman 1997	
Mar. 28	10: Environmental Externalities	Goodwin Chapter 12	
Apr. 2	11: Common Property		
	<b>Resources and Public Goods</b>	Goodwin Chapter 13	
Apr. 4	12: Environmental Valuation	Harris Chapter 6	
Apr. 9	12: Environmental Valuation	Harris Chapter 6	HW 5/
	(Continued)	-	Quiz 5
Apr. 11	13: Cost-Benefit Analysis	Harris Chapter 7	
Apr. 16	14: Climate Change and Energy	Harris Chapter 12	
	Policy		
Apr. 18	14: Climate Change and Energy	Harris Chapter 13	
	Policy		
Apr. 23	15: Greening the Economy	Harris Chapter 14	
Apr. 25	16: Economics for a	Daly 1973	HW 6/
	Sustainable Future		Quiz 6
April 30	In-class Final Exam		

# **Bibliography of Non-Textbook Required Readings (available on Canvas)**

Assante-Muhammed, Dedrik, Chuck Collins, Josh Hoxie, and Emmanuel Nieves. 2016. The Ever-Growing Gap. CFED and IPS.

Brueckner, JK. 2011. Chapter 1 from Lectures on Urban Economics. The MIT Press.

Daly, Herman. 1973. "The Steady-State Economy: Toward a Political Economy of Biophysical Equilibrium and Moral Growth," Chapter 19 of <u>Valuing the Earth</u> (Herman Daly and Kenneth Townsend, eds.).

Davis and Hoyt. The Gig Economy: Bad for Your Health? An Analysis of Pay for Performance on the Health of US Workers. Working paper, 2019.

Freeman L and F Braconi. 2004. "Gentrification and Displacement: New York City in the 1990s," *Journal of the American Planning Association* 70:39-52.

Goodwin, Neva R. Jonathan Harris, Julie Nelson, Pratistha Rajkarnikar, Brian Roach, and Mariano Torras. 2018. Macroeconomics in Context, Routledge.

Harris, Jonathan M. and Brian Roach. 2017. *Environmental and Natural Resource Economics: A Contemporary Approach*. Fourth Edition. Routledge.

Jacobs J. The Economy of Cities. Random House, 1969.

Krugman, Paul. 1997. "Earth in the Balance Sheet: Economists Go for the Green," *Slate*, April 17, 1997

Kuchler F, Tegene A, and JM Harris. 2004. "Taxing Snack Foods: What to Expect for Diet and Tax Revenues," *Agriculture Information Bulletin* No. 74-08.

MBTA. 2014. Potential MBTA Fare Changes in SFY 2015: Impact Analysis.

Muñoz, Ana Patricia, Marlene Kim, Mariko Chang, Regine O. Jackson, Darrick Hamilton, and William A. Darity Jr. 2015. The Color of Wealth in Boston. Federal Reserve Bank of Boston.

Pallotta D. 2012. Case Study: Pallotta Teamworks, in *Uncharitable: How Restraints on Nonprofits Undermine Their Potential*, Tufts University Press. TED talk available at: http://www.ted.com/talks/dan\_pallotta\_the\_way\_we\_think\_about\_charity\_is\_dead\_wrong

Pierce G, and D Shoup, 2013. "Getting the Prices Right," *Journal of the American Planning Association* 79(1):67-81.

Reynolds, H.T. "A Primer of Macroeconomics: Fiscal and Monetary Policy."

Sims DP. 2007. "Out of Control: What Can We Learn from the End of Massachusetts Rent Control?" *Journal of Urban Economics* 61:129-151.

## **Topic Learning Objectives**

## 1: Introduction

- Describe the principles of microeconomics as a policy and planning tool and understand the basic definitions of micro theory
- Describe the strengths and limitations of economics as a social science
- Understand the fundamentals of the neoclassical model, and engage in an informed debate of the pros and cons of the underlying assumptions
- Differentiate between positive and normative economic statements
- Explore the concept of value, neoclassical definitions of value, and alternative concepts of value pluralism
- Case Study: Nonprofit Business Model

## 2: Inequality

- Understand and graph inequality using Lorenz curves and Gini coefficients
- Review data and trends on economic inequality
- Define economic mobility
- Review data on international and global inequality
- Understand the causes and consequences of inequality
- Analyze policies to address inequality
- Case Study: Racial Wealth Gap

## 3: Markets: Supply and Demand

- Identify the determinants of market supply and demand
- Derive the market supply and demand curves
- Calculate equilibrium price and quantity
- Differentiate between shifts and movements along the curves
- Understand the market concepts of shortage and surplus
- Understand changes in price and income on equilibrium
- Calculate elasticities of price and income
- Differentiate between types of goods (inferior/normal)
- Apply market and elasticity concepts to real-world scenarios

## 4: Consumer Theory and Welfare

- Use supply and demand curves to calculate consumer and producer surplus
- Compare efficient and non-efficient market outcomes and calculate deadweight losses
- Describe the strengths and limitations of economic measures of social welfare
- Understand the differing goals of efficiency vs equity
- Learn inferences from behavioral economics
- Understand the basic principles of traditional utility theory
- Understand consumerism from multiple perspectives
- Analyze consumer policies

## 5: Producer Theory and Pricing

- Understand the economic measures of cost, revenue, and profits
- Explore the concept of economies of scale and optimal firm size
- Understand how producers set price, and explore various pricing strategies
- Differentiate between the various types of price discrimination

#### 6: Market Structure

- Understand the range of market types, from perfect competition to monopoly
- Describe output and price decisions of firms of different market types
- Describe the welfare consequences of various market types
- Understand the rationale for privatization of public services
- Gain insights into the relationship between economic outcomes and political power

#### 7. Macroeconomics

- Differentiate between microeconomics and macroeconomics
- Review macroeconomic measurement
- Understand the basic AS/AD macroeconomic model
- Define and analyze fiscal policy
- Define and analyze monetary policy

#### 8: Government Taxation

- Understand the purpose and impact of government taxation
- Understand differences in tax structure and how this impacts equity
- Evaluate the effects of taxes on market outcomes (price/quantity) and welfare (consumer/producer surplus)
- Understand the role of elasticities in maximizing tax revenue and on who pays the tax
- Case Study: Snack Taxes

## Section 01

#### 9: Transportation Economics

- Describe the goals and objectives of the sub-field of transportation economics
- Evaluate the impact of supply and demand on transportation planning and policy
- Understand the concept of induced demand and implications for infrastructure planning
- Explore the role (neg and pos) of transportation demand management policies
- Case Study: MBTA Fare Hikes; Transportation Demand Management (Parking)

#### 10: Labor Economics

- What is the labor market?
- Labor market demand and supply
- What are labor market regulations, and how do these impact labor market supply and demand?
- Understand current problems for workers in the gig or on-demand economy, and the role labor market regulations and institutions could play in addressing them
- Case Study: Gig Economy and Health

11. Cost-Benefit Analysis

- Learn the basics of CBA
- Understand the role of discounting in CBA
- Analyze how economists estimate the value of human life
- Review the benefits and limitations of CBA

## 12: Housing Economics

- Describe the goals and objectives of the sub-field of housing economics
- Understand the impact of supply and demand on residential housing markets and prices
- Explore the impact (neg and pos) of policies to promote access to housing
- Case Study: Rent Control

## 13: Urban Economics

- Explore the economic rationale for the existence and growth of cities, including economies of scale and agglomeration economies
- Understand the effect of transportation costs and public transportation in the formation and makeup of cities
- Understand the role of economics in spatial inequalities within and around cities
- Case Study: Gentrification

# Section 02

9: Economic Perspectives on the Environment

- Understand the difference between environmental and ecological economics
- Review different definitions of sustainability
- Understand why traditional economic theory tends to support environmental protection
- Review the goals of economics

## 10. Environmental Externalities

- Define externalities
- Learn why unregulated markets are inefficient in the presence of externalities
- Understand how Pigovian taxes can increase economic efficiency in the presence of externalities
- Define the optimal level of pollution

## 11. Common Property Resources and Public Goods

- Classify different types of goods
- Learn why unregulated management of common property resources is inefficient
- Understand why markets won't provide public goods
- Review policies for the management of common property resources and public goods

## 12. Environmental Valuation

- Define and categorize total economic value
- Learn different nonmarket valuation techniques
- Understand different revealed preference approaches
- Review the debate over contingent valuation

13. Cost-Benefit Analysis

- Learn the basics of CBA
- Understand the role of discounting in CBA
- Analyze how economists estimate the value of human life
- Review the benefits and limitations of CBA

14. Climate Change and Energy Policy

- Review current data and trends on climate change
- Summarize the impacts of climate change
- Review economic analyses of climate change
- Discuss carbon taxes and cap-and-trade
- Assess the potential for a low-carbon future

15. Greening the Economy

- Consider the tradeoff between the economy and environment
- Review analyses of the economic impact of environmental policies
- Consider whether economic growth and environmental protection are compatible

16. Economics for a Sustainable Future

- Define a steady-state economy
- Assess policies for achieving a steady-state economy
- Discuss the role of morality in a steady-state economy