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**
*Microeconomics in Context, 4th 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, **all final answers must represent 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.

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

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Required Readings</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan. 17</td>
<td>1: Introduction</td>
<td>Goodwin Chapters 1 and 7</td>
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<tr>
<td>Jan. 22</td>
<td>1: Introduction</td>
<td>Pallotta case study and TED talk</td>
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<tr>
<td>Jan. 24</td>
<td>2: Inequality</td>
<td>Goodwin Chapter 10</td>
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<tr>
<td>Jan. 31</td>
<td>3: Markets and Elasticity</td>
<td>Goodwin Chapter 3</td>
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<tr>
<td>Feb. 5</td>
<td>3: Markets and Elasticity</td>
<td>Goodwin Chapter 4</td>
<td>HW 1/ Quiz 1</td>
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<tr>
<td>Feb. 7</td>
<td>4: Consumer Theory and Welfare</td>
<td>Goodwin Chapter 5</td>
<td></td>
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<tr>
<td>Feb. 12</td>
<td>4: Consumer Theory and Welfare</td>
<td>Goodwin Chapters 7 and 8</td>
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<tr>
<td>Feb. 14</td>
<td>5: Producer Theory and Pricing</td>
<td>Goodwin Chapter 15</td>
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<tr>
<td>Feb. 19</td>
<td>5: Producer Theory and Pricing</td>
<td>TBD</td>
<td>HW 2/ Quiz 2</td>
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<tr>
<td>Feb. 21</td>
<td>NO CLASS (Monday schedule)</td>
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<tr>
<td>Feb. 26</td>
<td>6: Market Structure</td>
<td>Goodwin Chapters 16 and 17</td>
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<td>Feb. 28</td>
<td>7: Macroeconomics</td>
<td>Macroeconomics in Context (Goodwin et al.), Chapter 13; Reynolds</td>
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<tr>
<td>Mar. 5</td>
<td>8: Government Taxation</td>
<td>Goodwin Chapter 11</td>
<td>HW 3/ Quiz 3</td>
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<tr>
<td>Mar. 7</td>
<td>8: Government Taxation</td>
<td>Kuchler et al. 2004</td>
<td></td>
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<tr>
<td>Mar. 12</td>
<td>New Economy lecture</td>
<td>TBD</td>
<td>HW 4/ Quiz 4</td>
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<td>Mar. 14</td>
<td>In-class Midterm Exam</td>
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SPRING BREAK
### General Policy and Planning Section 01 (Professor Davis)

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Reading</th>
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</thead>
<tbody>
<tr>
<td>Mar. 26</td>
<td>9: Transportation Economics</td>
<td>TBD</td>
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<tr>
<td>Mar. 28</td>
<td>9: Transportation Economics</td>
<td>MBTA 2014 Pierce and Shoup 2013</td>
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<tr>
<td>Apr. 2</td>
<td>10: Labor Economics</td>
<td>Goodwin Chapter 9</td>
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<tr>
<td>Apr. 4</td>
<td>10: Labor Economics</td>
<td>Davis and Hoyt 2019</td>
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<tr>
<td>Apr. 9</td>
<td>11: Cost-Benefit Analysis</td>
<td>Harris Chapter 7</td>
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<tr>
<td>Apr. 11</td>
<td>11: Cost-Benefit Analysis</td>
<td>TBD</td>
</tr>
<tr>
<td>Apr. 16</td>
<td>12: Housing Economics</td>
<td>TBD</td>
</tr>
<tr>
<td>Apr. 18</td>
<td>12: Housing Economics</td>
<td>Sims 2007</td>
</tr>
<tr>
<td>Apr. 23</td>
<td>13: Urban Economics</td>
<td>Brueckner Chapter 1</td>
</tr>
<tr>
<td>Apr. 25</td>
<td>13: Urban Economics</td>
<td>Jacobs Chapter 4; Freeman and Braconi 2004</td>
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<tr>
<td>April 30</td>
<td>In-class Final Exam</td>
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### Environmental Section 02 (Professor Roach)

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

### 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.


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

**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