

# ECON 311: Public Economics

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Office Hours: T, 4-5pm, W 10:30-11:30am (Zoom or in-person) Class Hours: T/Th 11-12:20am

Office: PGill 276

Class Room: Pettengill G63

Course Website: <https://lyceum.bates.edu/course/view.php?id=6352>

OH Link: <https://calendar.app.google/XF36Ujpg9NcJbSD58>

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## Course Description

The objective of the course is to understand the role that governments play in market economies. We will be interested in addressing questions of why, how and when governments do (and/or should) intervene and in the consequences of government policies. We will start by introducing empirical and theoretical tools and concepts, and then follow up with analysis of externalities, social insurance programs and tax policy.

The class builds on microeconomic foundations, but it will be strongly motivated by actual policies. Significant attention will be devoted to empirical applications. On the theoretical side, we will be interested in both normative questions (what governments should do) and positive ones (what are the implications of what governments actually do).

## Course Objectives

After this course is done, you should be able to:

1. Understand the role of the government in the US (or any market) economy to:
  - Address market failures (e.g. externalities, public goods, market power, incomplete information)
  - Redistribute resources (e.g. income, wealth, education, etc.)
  - Provide social insurance and low-income support (e.g. unemployment insurance, disability insurance, health insurance, etc.)
2. Evaluate and recommend government interventions on both normative and positive grounds using applied econometric research

3. Assess the direct and indirect effects of interventions on economic outcomes (e.g. Pareto efficiency, equity, and efficiency-equity tradeoffs)
4. Understand the optimal way to finance government interventions and contrast with actual financing
5. Evaluate why governments choose to do what they do

## Required Materials

- Course notes, assignments, extra readings, recordings, and all other materials are available on the Lyceum webpage. *The notes are adapted from Prof. Wojciech Kopczuk's course of the same name*
- There is no required textbook for this course. Here are two recommended references:
  - "Public Finance and Public Policy" by Jonathan Gruber (Worth Publishers, 6th edition, 2019)
  - Taxing Ourselves by Joel Slemrod and Jon Bakija (MIT Press, 2017) is a very accessible background reading for the second part of the course (not required).

## Prerequisites

Prerequisites: ECON 255 and ECON 260. The course assumes background in intermediate microeconomics.

## Teaching Assistant

There is no teaching assistant for this course at the moment.

## Grading Policy

The course will have a take-home midterm (25%), final (25%), seven written problem sets (40%), and a short presentation (10%). There will be no make-up midterm (final). In the rare and unusual case that an absence can be formally excused, the final (midterm) will account for (50%).

- 25% of your grade will be determined by a midterm.
- 25% of your grade will be determined by a final.
- 40% of your grade will be determined by five out of seven written problem sets. You can drop the lowest two problem sets.
- 10% of your grade will be determined by a short group presentation

The course will be graded on a curve (approximately), using standard distribution of grades in the economics department.

All problem sets will be distributed in class, posted on the courseworks and will be due in exactly one week. No late submissions. Problem sets should be submitted online (with instructions to follow).

Working in groups on problem sets is encouraged, but every student has to submit individual solutions in his/her own words – unless otherwise specified.

Midterm will be take-home. The final will be in class on December 7th.

### **Short Presentations**

The course will have a short presentation component. The presentation will be a 5-minute presentation on one of the key readings followed by a short discussion. The presentation will be done in groups of 2 students. You can select your own group. The presentation will be graded on a 10 point scale. A successful presentation will include:

- A statement of the research question
- Data Description
- Intuitive explanation of the theoretical model and empirical strategy
- Summary of results
- Discussion of policy implications with questions for the class

## Course Policies

### During Class

We will be doing active coding projects during class, so please bring your personal laptops. Please refrain from using computers for anything but activities related to the class. Phones are prohibited as they are rarely useful for anything in the course. Eating and drinking are allowed in class, but please refrain from it affecting the course. Try not to eat your breakfast/lunch in class as the classes are typically active.

### Artificial Intelligence

I encourage each of you to make use of artificial intelligence-driven digital assistants, like ChatGPT and Github CoPilot. These tools are not a substitute for your own ingenuity, but instead a complement as they are incredibly useful for tasks like coding or proofreading. Please note during assignments whether and where you used ChatGPT, as you would cite your (human) sources.

### Attendance Policy

For complete attendance and excused absence policies, please see <https://www.bates.edu/dof/course-attendance-policy-guideline-for-absences/>. Attendance is expected in all lectures. Valid excuses for absence will be accepted before class. In extenuating circumstances, valid excuses with proof will be accepted after class.

### Policies on Incomplete Grades and Late Assignments

**Grace Period Days:** Everyone will receive three “grace period” days to turn in work after the due date. Late assignments will be accepted for no penalty if turned in within the “grace period.” You can use these whenever you wish, but once you use them, they are gone.

After the “grace period,” the instructor, department, or college must authorize an extension. If not authorized, assignments will be accepted for a 50% deduction to the score up to 2 days after the deadline. After this any assignments handed in will be given 0.

**End of course:** If an extension beyond the “grace period” is not authorized by the instructor, department, or college, an unfinished incomplete grade will automatically change to an F after either (a) the end of the next regular semester in which the student is enrolled (not including short-term), or (b) the end of 12 months if the student is not enrolled, whichever is shorter.

Incompletes that change to F will count as an attempted course on transcripts. The burden of fulfilling an incomplete grade is the responsibility of the student.

### Academic Integrity and Honesty

Students are required to comply with the Bates policy on academic integrity in the Code of Student Conduct at <https://www.bates.edu/student-conduct-community-standards/student-conduct/code-of-student-conduct/>. Don't cheat. Don't be that person. Yes, you. You know exactly what I'm talking about. See <https://www.bates.edu/student-conduct-community-standards/student-conduct/academic-integrity-policy/> for a detailed explanation of academic integrity.

### Accommodations by Zoom

I prefer that all of you attend lecture in person, but I understand that there are sometimes unavoidable conflicts. As such, the course will have an option to tune in via Zoom for those with an excused absence related to health, family, or other unavoidable conflicts/emergencies. If you have a reason you need to attend a lecture via Zoom, please get in touch to explain the situation. If you do not get in touch and attend a lecture via Zoom without approval, I will consider it an absence. Approval can be given after the fact, but I prefer to know about hybrid attendance ahead of time. Several of you have been in touch about this option already and do not need to seek further approval.

## Accommodations for Disabilities

Reasonable accommodations will be made for students with verifiable disabilities. In order to take advantage of available accommodations, students must register with the Office of Accessible Education and Student Support (AESS) in Ladd Library G35. For more information on Bates' policy on working with students with disabilities, please see the AESS webpage on Requesting Services (<https://www.bates.edu/accessible-education-student-support/requesting-services/how-to-register-for-accommodations/>).

Non-Discrimination Policy Bates College provides equality of opportunity in education and employment for all students and employees. Accordingly, Bates College affirms its commitment to maintain a work environment for all employees and an academic environment for all students that is free from all forms of discrimination.

Discrimination based on race, color, religion, creed, sex, national origin, age, disability, veteran status, or sexual orientation is a violation of state and federal law and/or Bates College policy and will not be tolerated. Harassment of any person (either in the form of quid pro quo or creation of a hostile environment) based on race, color, religion, creed, sex, national origin, age, disability, veteran status, or sexual orientation also is a violation of state and federal law and/or Bates College policy and will not be tolerated. Retaliation against any person who complains about discrimination is also prohibited. Bates's policies and regulations covering discrimination, harassment, and retaliation may be accessed at <https://www.bates.edu/here-to-help/policies/equal-opportunity-policy/>. Any person who feels that he or she has been the subject of prohibited discrimination, harassment, or retaliation should contact the Director of Title IX & Civil Rights Compliance and Title IX Coordinator, Gwen Lexow, at [titleix@bates.edu](mailto:titleix@bates.edu) or <https://www.bates.edu/here-to-help/make-a-report/>.

## Accommodations for Families

If you are a parent or guardian of a child, and you are unable to attend class and care for that child for class one day, please be in touch in case you need further accommodations. You are invited to attend the lecture via Zoom or watch it asynchronously if that will make it easier to not miss course material.

## Schedule and weekly learning goals

The schedule is tentative and subject to change. The associated learning goals below should be viewed as the key concepts you should grasp after each week, and also as a study guide before each exam, and at the end of the semester. Each exam will test on the material that was taught up until 1 week prior to the exam (i.e. vorticity will not be tested until exam 2). The applications in the second half of the semester tend to build on the concepts in the first half of the semester though, so it is still important to at least review those concepts throughout the semester.

*Chapter numbers are from Gruber's book.*

### **Week 1, 09/05 - 09/07:** Introduction (Chapters 1)

*Problem Set 1 Assigned, due 9/17*

- Establish goal of public policy
- Overview of US government finances

### **Week 2, 09/12 - 09/14:** Microeconomic Theory and Empirical Tools (Chapters 3, 4)

*Problem Set 2 Assigned, due 9/29*

- First and second fundamental welfare theorems
- Introduce empirical methods to separate causation and correlation

### **Week 3, 09/19 - 09/21:** Incidence and efficiency cost of government (Chapters 19 and 20)

**Presentation:** Kopczuk and Munroe (2015)

- Differentiate statutory and economic incidence
- Calculate deadweight loss
- Evaluate the role of elasticity in determining economic incidence and the cost of taxation
- Contrast partial and general equilibrium incidence of taxation

Good readings: Oates and Schwab (2015), Chetty (2009)

### **Week 4, 09/26 - 09/28:** Externalities (Chapters 5 and 6)

**Presentation:** Knittel and Sandler (2018)

*Problem Set 3 Assigned, due 10/13*

- Differentiate externalities from spillovers that are priced by the market
- Benchmark the market equilibrium with an externality relative to the Pareto efficient equilibrium
- Evaluate taxes, subsidies, bans, and other policies to manage externalities

Good readings: Gruber and Hungerman (2007), Chay and Greenstone (2005), Barreca et al. (2016)

**Week 5, 10/03 - 10/05:** Social Insurance (Chapter 12)

- Solve for optimal insurance provision
- Define and differentiate moral hazard and adverse selection
- Identify role of government in solving these market failures

Good readings: Chetty and Looney (2006), Chetty and Looney (2007), Chetty (2006), Kroft and Notowidigdo (2016)

**Week 6, 10/10 - 10/12:** Major Social Insurance Programs: Unemployment, Disability, and Social Security (Chapters 13 and 14)

**Presentation:** Chetty (2008)

*Problem Set 4 Assigned, due 10/27*

- Isolate reasons government is involved in different social insurance markets
- Identify potential moral hazard in each social insurance program
- Characterize tradeoffs balanced by optimal insurance for each major program

Good readings: Coombs et al. (2022), Coombs (2022), Ganong and Noel (2019)

**Fall Recess, 10/17 - 10/19:** Midterm on Tuesday, then rest!

**Week 7, 10/24 - 10/26:** Health Insurance & Low-income Support (Chapters 15 and 16)

**Presentation:** Aron-Dine et al. (2013)

*Problem Set 5 Assigned, due 11/10*

- Identify different health care systems in the United States
- Characterize moral hazard and adverse/advantageous selection in health insurance

Good readings: Einav et al. (2013), Einav et al. (2010), Einav and Finkelstein (2011), Dobkin et al. (2018)

**Week 8, 10/31 - 11/02:** Low-income Support (Chapter 17)

**Presentation:** Deshpande and Li (2019)

- Contrast gaps filled by TANF, EITC, SSI, and Food Stamps
- Calculate implied marginal tax rate from the EITC and evaluate labor supply consequences
- Analyze the labor supply incentives associated with welfare programs
- Evaluate, in-kind transfers, role of targeting in reducing moral hazard of welfare programs

Good readings: Currie and Gruber (1996), Hoynes et al. (2016), Bailey et al. (2020), Besley (1990)

**Week 9, 11/07 - 11/09:** Taxation in practice & Optimal Taxation I: Commodity Taxes (Chapters 18)

**Presentation:** Zidar (2019)

*Problem Set 6 Assigned, due 11/27*

- Recognize the types of taxation and know their relative size in the budget
- Understand how statutory rates, deductions, and credits change tax liability
- Understand role of elasticity in determining optimal taxes that reduce excess burden

Good readings: Chetty et al. (2009)

**Week 10, 11/14 - 11/16:** Optimal Taxation II: Income taxes

**Presentation:** Saez (2010)

- Solve the optimal linear and non-linear income tax rate formulae
- Characterize the equity and efficiency tradeoffs in optimal taxation
- Define and evaluate the Haig-Simons criterion for taxable income

Good readings: Feldstein and Taylor (1976)

**Thanksgiving Recess, 11/21 - 11/23:** Gobble, gobble!

*Problem Set 7 Assigned, due 12/8*

**Week 11, 11/28 - 11/30:** Capital income and business taxes administration (Chapters 22, 23, 24)

**Presentation:** Smith et al. (2019)

- Evaluate different approaches and conclusions to capital taxation
- Identify how government taxation can reduce risk through absorbing part of losses and taking part of gains
- Contrast pass-through and realization approaches to taxation

**Week 12, 12/05 - 12/07:** Behavioral responses, tax compliance and administration (Chapter 21)

**Presentation:** Kleven et al. (2011)

- Identify and define forms of Behavioral responses like bunching, tax evasion
- Evaluate the excess burden of non-labor supply responses to taxation (evasion, fringe benefits over salary)
- Evaluate policies to increase fines and probability of detection on tax compliance

Good Readings: Feldstein (1999), Alstadsæter et al. (2019), Bernheim (2016), Bernheim and Taubinsky (2018)



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