Course description. This course examines the role of the government in the economy and its impact on individuals and firms. The aim of the course is to provide an understanding of the reasons for government intervention in the economy, the extent of that intervention, and the response of individuals and firms to the government’s actions. A wide variety of topics are covered, including but not limited to environmental regulation, antitrust and merger analysis, health care, social insurance programs, and the equity and efficiency consequences of taxation of both individuals and firms. To understand how consumer behavior, firm strategy, and public policy interact, the course will rely on a mix of simple but rigorous analytical models and case studies.

Course Requirements. There are five sets of requirements for this course:

• **Readings.** The textbook for the first half of the material is Gruber, J., Public Finance and Public Policy, 5th Edition, New York: Worth Publishers, 2016 (earlier editions are fine). The detailed outline below notes supplementary readings for lectures not covered in Gruber, as well as select newspaper and other articles.

As a microeconomics reference, I recommend MIT’s OCW Principles of Microeconomics course, available [here](#). The units relevant for the class are 1, 2, 4 (chapters on Individual and market consumer surplus, producer surplus, and social welfare), 5 (monopoly I and chapters on game theory & the prisoner’s dilemma and repeated games).

• **Class participation.** [10%] It is important that you come to class prepared to participate; doing the readings is not a substitute for attending and participating in class. I will sometimes ask you to bring articles to class (from newspapers, blog posts, and other media) for discussion. More than five unexcused absences result in an automatic failing grade.

• **Problem sets.** [10%] The four problem sets (due 9/20, 10/11, 11/08, and 11/29) account for a collective total of 10% of your grade (i.e., 2.5% for each problem set). I encourage you to work together with classmates on the problem sets, although you must hand in your own problem set. We may review some problems in class, and each student should be prepared to answer any problem.

• **Quizzes.** [30% each] There will be two in-class exams on Monday, October 16th, and on Monday, December 11th. These are closed-book exams focusing on the economic concepts and applications.
studied in class, covering both formal problems and applications of course concepts to current policy questions.

**Review Sessions**: Rachel will hold a review session for each of the two quizzes on Sunday, October 15th and on Sunday, December 10th, in the afternoon. Time and place TBA.

**Missing an Exam**: Students may miss scheduled examinations only with a University-approved excuse; such valid excuses include direct conflicts with another course offered at Penn that cannot be rescheduled as well as a varsity (but not club) sport competition (but not training). In particular, job interviews are not a legitimate reason to miss an exam. Missing an exam without a University approved excuse will result in a zero for the exam.

**Quiz Re-grades**: To submit a regrade request for an exam, you must submit a completed regrade form (posted to Canvas) within 5 business days after the graded examination papers have been returned. Your entire exam will then be reviewed, and your grade may go down, go up, or remain unchanged.

- **Class Project.** [20%] Each student will be a member of a class project team; the number of students per team will depend on total class enrollment. Teams have flexibility in the choice of a topic for the project but all topics should involve the application and analysis of the concepts addressed in this class to a real-world policy question. Sample projects form prior years have been posted to Canvas. I am happy to provide feedback on potential topics and analytical approaches (which can be quantitative, qualitative or a combination); please email me your ideas or come talk to me during my office hours if you would like feedback.

*Timeline and deliverables:*

- **Class 10**: Project proposal: list the topic, describe the intended final output, and summarize your research plan and method (max one page).
- **Classes 26/27**: Project presentation to class, including a Q&A session or other group-led portion involving the rest of the class. Each group should choose a presentation format that you believe best communicates the substantive issues involved. For example, you might model your presentation as a congressional testimony, an academic conference paper, or a news show debate.
- **December 22nd**: Written report (max 7 pages) supported by additional materials, incl. your presentation materials.

**Grade**: I will grade each project based on the in-class presentation, the summary write-up, and the PowerPoint presentation. Grades will reflect the relevance of economic concepts used and comparison to relevant cases. Each team will receive a single group grade. Students who fail to participate fully in team presentations will lose credit on their class participation grade.
## Course Schedule and Key Dates

*Disclaimer: The syllabus is tentative. The final version will depend on class size and scheduling.*

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
<th>Session topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Wed 08:30</td>
<td>Introduction</td>
<td>Introduction and background</td>
</tr>
<tr>
<td></td>
<td>09:04</td>
<td><em>No class</em></td>
</tr>
<tr>
<td>2 Wed 09:06</td>
<td>Theoretical</td>
<td>Theoretical tools</td>
</tr>
<tr>
<td></td>
<td>tools</td>
<td></td>
</tr>
<tr>
<td>3 Mon 09:11</td>
<td>Externalities I</td>
<td>Externalities I</td>
</tr>
<tr>
<td>4 Wed 09:13</td>
<td>Externalities II</td>
<td>Externalities II</td>
</tr>
<tr>
<td>5 Mon 09:18</td>
<td>Public goods</td>
<td>Public goods</td>
</tr>
<tr>
<td>6 Wed 09:20</td>
<td>Problem Set 1</td>
<td>State and local governments</td>
</tr>
<tr>
<td></td>
<td>Mon 09:25</td>
<td>Social Insurance Programs I: Overview</td>
</tr>
<tr>
<td>7 Wed 09:27</td>
<td>Social Insurance Programs II: Social Security</td>
<td></td>
</tr>
<tr>
<td>8 Mon 10:02</td>
<td>Social Insurance Programs III: Unemployment Insurance</td>
<td></td>
</tr>
<tr>
<td>9 Mon 10:09</td>
<td>Health Insurance I</td>
<td>Health Insurance I</td>
</tr>
<tr>
<td>10 Wed 10:11</td>
<td>Problem Set 2</td>
<td><em>Wrap up and Review, Lectures 1-11</em></td>
</tr>
<tr>
<td>11 Mon 10:16</td>
<td>Quiz 1</td>
<td>Covers materials from lectures 1 through 11</td>
</tr>
<tr>
<td>12 Wed 10:18</td>
<td>Antitrust I: Overview, price fixing</td>
<td></td>
</tr>
<tr>
<td>13 Mon 10:23</td>
<td>Antitrust II: Economics of mergers</td>
<td></td>
</tr>
<tr>
<td>14 Wed 10:25</td>
<td>Consumer Protection I: Information disclosure</td>
<td></td>
</tr>
<tr>
<td>15 Mon 10:30</td>
<td>Consumer Protection II: Financial products</td>
<td></td>
</tr>
<tr>
<td>16 Wed 11:01</td>
<td>Communications Markets I: The Economics of Two-Sided Markets</td>
<td></td>
</tr>
<tr>
<td>17 Mon 11:06</td>
<td>Communications Markets II: Net Neutrality</td>
<td></td>
</tr>
<tr>
<td>18 Wed 11:08</td>
<td>Problem Set 3</td>
<td>Introduction to Taxation and Tax Incidence</td>
</tr>
<tr>
<td>19 Mon 11:13</td>
<td>Taxation of Individuals I: Taxes and labor supply</td>
<td></td>
</tr>
<tr>
<td>20 Wed 11:15</td>
<td>Taxation of Individuals II: Taxes, saving and risk-taking</td>
<td></td>
</tr>
<tr>
<td>21 Mon 11:20</td>
<td>Corporate taxes and investment</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>No class</em></td>
<td></td>
</tr>
<tr>
<td>22 Wed 11:22</td>
<td>Team presentations</td>
<td></td>
</tr>
<tr>
<td>23 Mon 11:27</td>
<td>Tax Inefficiencies and optimal taxation</td>
<td></td>
</tr>
<tr>
<td>24 Wed 11:29</td>
<td>Problem Set 4</td>
<td><em>Wrap up and Review, Lectures 14-24</em></td>
</tr>
<tr>
<td>25 Mon 12:04</td>
<td>Team presentations</td>
<td></td>
</tr>
<tr>
<td>26 Wed 12:06</td>
<td>Team presentations</td>
<td></td>
</tr>
<tr>
<td>27 Mon 12:11</td>
<td>Quiz 2</td>
<td>Covers materials from lectures 14 through 24</td>
</tr>
</tbody>
</table>

Class project written report due December 22, 2017.
Course Outline

Lecture 1 (08/30): Introduction and Background
  • Why does the government intervene, how should it intervene, and what are the effects?
  • Empirical Tools: Distinguishing correlation and causation
  Reading: Gruber Chapter 1; 3

Lecture 2 (09/06): Theoretical Tools
  • Quick overview of utility and profit maximization
  Reading: Gruber Chapters 2

Lectures 3 and 4 (09/11, 09/13): Externalities
  • Examples of externalities: pollution and smoking
  • Private sector versus government solutions
  • Price vs quantity regulation
  Reading I: Gruber Chapter 5 and sections 6.1 and 6.3
  Reading II: Don’t Want Me to Recline My Airline Seat? You Can Pay Me, NYT, 8/27/14,
      http://nyti.ms/1mRVQUn
  Reading III: It’s not just opioid addiction. Alcoholism may be on the rise too, Vox, 8/10/17,

Lecture 5 (09/18): Public Goods
  • Example of public goods: transportation networks
  • Private versus public provision
  Reading I: Gruber Chapter 7
  Reading II: Trump Study of Gas Tax Could Run Afoul of GOP, Rural Voters, Bloomberg, 5/1/17,

Lecture 6 (09/20): State and Local Governments
  • Which level of government should cover which responsibilities?
  • The impact of economic conditions on state and local governments
  Reading: Gruber Chapter 10
  Reading II: Looking Back On 50 Years Of Busing In Boston, NPR, 10/5/2016,
      http://www.npr.org/sections/ed/2016/10/05/495504360/looking-back-on-50-years-of-busing-in-boston

Lectures 7 and 8 (09/25, 09/27): Social Insurance Programs I & II: Social Security
  • Overview of social insurance programs
  • Overview of Social Security
  • Assessing effect on retirement, poverty, and other outcomes
  • Options for social security reforms
  Reading I: Gruber Chapter 12; 13
  Reading II: Iraq Veteran, Now a West Point Professor, Seeks to Rein In Disability Pay, NYT, 1/7/2015,
      http://nyti.ms/1xHesiC
  Reading III: Calls for Social Security Expansion Grow Louder in Washington, NYT, 7/15/16,
      http://nyti.ms/29JFiAw
Lecture 9 (10/02): Social Insurance Programs III: Disability and Unemployment Insurance
• Program financing and benefit determination
• Impact on firms and individuals
Reading I: Gruber Chapter 14
Reading II: The Vanishing Male Worker: How America Fell Behind, NYT, 12/11/15, http://nyti.ms/1urjh91

Lectures 10 and 11 (10/04, 10/09): Health Insurance
• Background on health insurance coverage and health care spending
• Tax subsidy to health insurance
• Medicare, Medicaid, and other government programs
• Affordable Care Act
Reading I: Gruber Chapters 15 and 16
Reading II: Colonoscopies Explain Why U.S. Leads the World in Health Expenditures, NYT, 6/1/13, http://nyti.ms/14ilNSC
Reading III: No, Giving More People Health Insurance Doesn’t Save Money, NYT, 8/5/15, http://nyti.ms/1KQFbRf

Lecture 12 (10/11): Wrap up and Review, Lectures 1-11

Lecture 13 (10/16): Quiz 1

Lecture 14 (10/18): Antitrust I: Overview, price fixing
• Overview of main areas of competition policy
• Enforcement
Reading IV: DOJ looking closer into movie distribution, WSJ, 4/16/2015, http://on.wsj.com/1hooHTT

Lecture 15 (10/23): Antitrust II: Economics of mergers
• Economic rationales for horizontal mergers
• Public policy toward horizontal mergers
Reading II:
• The Regulatory Hurdles to Health Insurance Mergers, NYT, 7/24/16, http://nyti.ms/1JDMeH1
• Amazon to Buy Whole Foods for $13.4 Billion, NYT, 6/16/17, https://nyti.ms/2sxdjxJ
• Why this group is trying to stop Amazon from buying Whole Foods, Washington Post, 7/17/17, http://wapo.st/2vm4KEf?tid=ss_tw&utm_term=.72d4e830b0b2

In reading the above, consider: (1) which product market does each company compete in?; (2) what is the relevant geographic market (i.e., as a buyer of the company's products in a given
location, what determines which competitors you would choose among)? (3) where [in terms of either (1) or (2)] do the firms compete directly?

Lecture 16 (10/25): Consumer Protection I: Information disclosure

- Use of policies geared at improving consumer information about product quality
- Licensing, and minimum quality standards


Reading III: Paying People to Be Healthy Usually Works, if the Public Can Stomach It, NYT, 7/6/15, http://nyti.ms/1LNyCh3

Lecture 17 (10/30): Consumer Protection II: Regulation of Consumer Financial Products

- Motivation behind consumer protection in the context of financial products, e.g., credit cards
- Overview of regulations and outcomes: the case of credit cards
- Overview of the student loan market, state subsidies and grants

www.jstor.org/stable/23049440

Reading II: Card Act Cleared Up Credit Cards’ Hidden Costs, NYT, 11/7/13, http://nyti.ms/1AKvVrF


Lecture 18 (11/01): Communications Markets I

- Regulation in Communications Markets
- The economics of two-sided markets


Lectures 19 (11/06): Communications Markets II

- Net neutrality regulations

https://www.jstor.org/stable/43783710


Lecture 20 (11/08): Introduction to Taxation and Tax Incidence

- Tax language and concepts

Reading I: Gruber Sections 18.1-18.2; 19.1-19.2; 19.4
Lecture 21 (11/13): Taxation of Individuals I: Taxes and labor supply
• Taxation and labor supply
• Taxation and the family
Reading I: Gruber Section 18.6, Chapter 21
Reading II: Tax Day: Are You Receiving a Marriage Penalty or Bonus?, NYT 4/15/15, http://nyti.ms/1D0V6mn

Lecture 22 (11/15): Taxation of Individuals II: Taxes, saving, and risk-taking
• Effect of taxes on household saving, in particular for retirement, and wealth
• Capital gains taxation
Reading I: Gruber Sections 22.2-22.4 and 23
Reading II: Think a 401(k) Is Not a Sexy Benefit? Competition May Change That, NYT, 9/21/16, https://nyti.ms/2s76dNd

Lecture 23 (11/20): Taxing Business Income: Corporate taxes and investment
• Corporate tax overview and incidence
• Impact of business taxes on firm decisions
Reading I: Gruber Chapter 24
Reading II: The Major Potential Impact of a Corporate Tax Overhaul, NYT, 1/7/17, https://nyti.ms/2jAgUqz

Lecture 24 (11/27): Efficiency Costs of Taxation and Optimal Taxation
• Who bears the burden of different taxes?
• Efficiency and optimal taxation
• Using the tax system to deliver social policies
Reading I: Gruber Section 18.5; 19.1-19.2; 19.4; 20.1
Reading II: How Low Can Taxes Go? Outside Washington, Republicans Find Limits, NYT, 7/2/17, https://nyti.ms/2tBmIEY

Lecture 25 (10/11): Wrap up and Review, Lectures 14-24

Lecture 26 (12/04), Lecture 27 (12/06): Team presentations

Lecture 28 (04/27): Quiz 2