Email: dragrawal@uky.edu (include “Eco 751” in subject line)

Telephone: 859-257-2111 (Econ Main Office: 859-257-3626)

Office Hours: M 2:00-3:00 or by appointment, 223C BE

Course Webpage: https://www.uky.edu/canvas/

Personal Webpage: http://www.uky.edu/~drag222/

Nature of Syllabus: The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.

Course Description: From the University Catalog – “An advanced study of both how government activities influence allocation, relative prices and welfare and what is the proper role of the public sector in resource allocation. Relevant topics include: public goods, externalities, tax incidence, optimal taxation, benefit-cost analysis, public pricing, fiscal federalism, state-municipal finance and public choice. Prereq: ECO 601 or consent of instructor.”

Course Objectives and Learning Outcomes: The principal objective of this course is to provide an understanding of the role of government intervention in the economy from both a theoretical and an empirical perspective. The emphasis will be on learning techniques that can be applied to produce original research and to critically analyze existing research in the field of public economics. The focus in this half of the course will be on tax policy. The course will help you: 1) to provide a working knowledge of modern theoretical and empirical techniques for investigating how taxes affect economic behavior and how tax policy should be designed, 2) to sharpen how to think critically about the economics of taxation, and 3) to gain experience in identifying and answering tax-related research questions.

Textbooks and Readings: The required textbook for the course is Tax Systems by Joel Slemrod and Christian Gillitzer (1st edition, MIT Press). We will also make extensive use of journal articles listed at the end of this syllabus. In addition, useful resources include the book titles below. I recommend that anyone wishing to do research in public economics seriously consider all of these textbooks.


**Online Materials:** We will use the canvas system (http://www.uky.edu/canvas/) for this semester. It is important you check this website regularly as I will post assignments to canvas and will use the announcements tool to send you important information. You are responsible for maintaining and checking your University email account and the canvas announcements on a daily basis. Please use your university email account for your academic correspondence to me so that it does not go to my spam folder.

All academic readings will be made available online through canvas. My lecture notes are also posted to canvas. You may not redistribute copies of my slides, lecture notes, or homework solutions to any other person or website.

**Grades:** Grades for the class will be assigned based on the following information.

<table>
<thead>
<tr>
<th>Requirement</th>
<th>% of Final Grade</th>
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<tbody>
<tr>
<td>Problem Sets</td>
<td>10%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>40%</td>
</tr>
<tr>
<td>Paper Summaries</td>
<td>10%</td>
</tr>
<tr>
<td>Paper/Mini-papers</td>
<td>30%</td>
</tr>
<tr>
<td>Referee Report</td>
<td>10%</td>
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</table>

**Problem Sets:** Problem sets will be listed on canvas. You may work in groups on the problem sets and studying in groups is highly encouraged. However, you must write up your own solution to each problem set. Solutions must be typeset and show all work. Given the large amount of mathematical calculations, I highly recommend using \LaTeX or LyX to type your solutions. If you don’t know these, now is a good time to learn.
Final Exam: The course will contain a final exam. The final exam is cumulative. The final exam will be given in its university appointed time slot. An excused absence from the final exam will be given if you contact me before the exam and for an unexpected emergency (illness that prevents you from taking the exam or could harm the health of others; a documented family emergency). You must provide appropriate documentation; in the case of a medical excuse a Tier 2 or 3 document from UHS will be satisfactory. Leaving early for a vacation, for example, is not an appropriate reason to miss an exam.

Paper Summaries: Graduate education requires careful reading of academic articles. Students are expected to read all required readings, but will be assigned one of the readings for each module to write a paper summary. For the assigned paper in each module, students will write a two-page (typewritten) summary of an empirical paper for the module. The summary must be turned in before the start of the first class where we discuss papers in that module. The summary must address the following (please number answers in the write-up): (1) What is the main question? (2) What does economic theory predict about the main question? (3) What data are used? (4) What are the key parameters to be identified? (5) What is the identification strategy of the empirical approach? (6) What are the threats to identification and does the author adequately address them? (7) What are the main findings of the paper? (8) How does the paper contribute to the relevant literature?

Referee Report: The referee report is a critical assessment of an unpublished paper that I will provide to students to review. This report should be no longer than 5 pages and typically is 2-3 single spaced pages. The report should (1) assess the paper’s contribution to the relevant literature; (2) discuss key weaknesses of the paper; and (3) make suggestions for improvement. Students should also prepare a one page cover letter containing a confidential recommendation for the journal editor (accept, revise and resubmit, reject) along with a brief justification. Students will be assigned a random article.

Paper/Mini-papers: Students may either write one long paper, due in the last day of class, or two short papers one due in the class before spring break the other on the last day of class. The long paper (which will be your default choice if you do not turn in a short one prior to spring break) will be a standard research paper. If you select this option, you should consult with me before beginning the research agenda. The short papers will be less complete. They will motivate a piece of research (a different one for each paper), describe its methods and the related literature. The only thing distinguishing it from a standard paper is that the actual analysis will not be finished. Note, a critical component of the evaluation of the short papers will include their feasibility. If the work could never be done, they will not be well received. Given this course is on the economics of government revenues, all papers written for this course must be related to a topic of taxation. While papers can be typed in any software, I especially am pleased to see papers written in \LaTeX or LyX.

\footnote{This is inspired by Melissa S. Kearney’s syllabus.}
**Letter of Introduction:** For the second lecture, please write a one-page letter of introduction of yourself to the instructor. Include your name and anything about yourself that you would like to share such as your future research interests. Please also upload a digital photo to your canvas profile (click account>profile and then edit the image). I want to learn about you and your interests throughout the semester and this will help start that process.

**Accommodations:** If you have a documented disability that requires academic accommodations, please see me no later than the second week of class during office hours or after class. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation from the Disability Resource Center for coordination of campus disability services available to students with disabilities.

**Academic Honesty:** As a University of Kentucky student, you have agreed to abide by the University’s academic honesty policy. All academic work must meet the standards described in “UK Student Code of Conduct.” Cases of cheating on exams or plagiarizing material for a presentation or assignment will result in (as a minimum punishment) final grade of “zero” assigned for the incident and the incident will be reported to university officials. Questions about proper procedures are always appropriate – and welcome – before work is submitted.

**Children in the Classroom:** To my knowledge, the University does not have a policy on children in the classroom, so I created my own. All babies (nursing, bottle-feeding, etc.) are welcome in class as often as is necessary. For older children I understand that disruptions to childcare may happen. Rather than missing class, you are welcome to bring your child to class. However, for older children, this is not a long-term solution and should only be done when childcare is unavailable. If bringing a child to class, be sure to bring activities and (quiet) toys to keep them having fun.

**Electronics:** Cell phone usage during class is prohibited. When I am lecturing, laptops are unlikely to be helpful for taking notes and I suggest using pen and paper. See “Laptops Are Great. But Not During a Lecture...”. You can download it here: https://www.nytimes.com/2017/11/22/business/laptops-not-during-lecture-or-meeting.html

**INSTRUCTOR ABSENCES:** Normally, I take care to avoid missing classes. However, some conflicts this semester (related to jury service) mean that I may miss some classes. All of these classes will be rescheduled if we can find a mutually agreeable time to meet.

**Schedule:** The following list indicates when we will cover various topics. Its highly likely we will deviate from this schedule or that I will not cover certain topics. SG stands for Slemrod and Gillitzer. Readings from journal articles are listed below. This reading list includes articles that are required for the course, for the preliminary exam, and some that are optional. The required readings will be provided as we progress.
<table>
<thead>
<tr>
<th>Day</th>
<th>Module</th>
<th>Readings</th>
<th>What is due</th>
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</thead>
<tbody>
<tr>
<td>01/15</td>
<td>Introduction</td>
<td>SG1</td>
<td></td>
</tr>
<tr>
<td>01/22</td>
<td>Welfare Analysis</td>
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<tr>
<td>01/27</td>
<td>Welfare Analysis</td>
<td></td>
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<tr>
<td>01/29</td>
<td>Tax Incidence and Optimal Progressivity</td>
<td>SG2</td>
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<tr>
<td>02/03</td>
<td>Tax Incidence and Optimal Progressivity</td>
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<tr>
<td>02/05</td>
<td>Tax Incidence and Optimal Progressivity</td>
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<tr>
<td>02/10</td>
<td>Measuring Behavioral Response</td>
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<tr>
<td>02/12</td>
<td>Measuring Behavioral Response</td>
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<tr>
<td>02/17</td>
<td>Tax Base</td>
<td>SG8</td>
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<tr>
<td>02/19</td>
<td>Tax Base</td>
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<tr>
<td>02/24</td>
<td>Consumption vs. Income</td>
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<tr>
<td>02/26</td>
<td>Consumption vs. Income</td>
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<tr>
<td>03/02</td>
<td>Evasion</td>
<td>SG3, SG6, SG11</td>
<td>Mini-paper 1</td>
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<tr>
<td>03/04</td>
<td>Evasion</td>
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<tr>
<td>03/09</td>
<td>Implementing Tax Systems</td>
<td>SG4, SG5</td>
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<tr>
<td>03/11</td>
<td>Implementing Tax Systems</td>
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<td>03/23</td>
<td>Implementing Tax Systems</td>
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<tr>
<td>03/25</td>
<td>Optimal Tax Systems</td>
<td>SG7, SG9</td>
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<tr>
<td>03/30</td>
<td>Optimal Tax Systems</td>
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<tr>
<td>04/01</td>
<td>Behavioral Tax</td>
<td>SG10</td>
<td>Referee Report</td>
</tr>
<tr>
<td>04/06</td>
<td>Corporate Tax</td>
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<td>04/08</td>
<td>Corporate Tax</td>
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<tr>
<td>04/13</td>
<td>International Tax</td>
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<tr>
<td>04/15</td>
<td>International Tax</td>
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<tr>
<td>04/20</td>
<td>Local Public Economics</td>
<td></td>
<td>Referee Report</td>
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<tr>
<td>04/22</td>
<td>Local Public Economics</td>
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<tr>
<td>04/27</td>
<td>Local Public Economics</td>
<td></td>
<td>Mini-paper 2 or Long paper</td>
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<tr>
<td>04/29</td>
<td>Local Public Economics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>05/04</td>
<td>10:30-12:30</td>
<td>SG12</td>
<td>Final Exam</td>
</tr>
</tbody>
</table>
MODULES: The following is a list of topics that we will cover under each module. Some article citations are incomplete, but can easily be found online.²

TOOLS OF WELFARE ANALYSIS:

- Social welfare maximization and the theory of sufficient statistics.

TAX INCIDENCE AND OPTIMAL PROGRESSIVITY

- Vertical equity

- Excess burden

²Thanks to Joel Slemrod, James Hines, and Raj Chetty for sharing reading lists from their courses.

- **Tax Incidence**

- **Optimal progressivity**
MEASURING THE BEHAVIORAL RESPONSE TO TAXATION

• Introduction

• Cross-sectional analysis and the progressive income tax

• Panel data analysis

• Pooled cross-section analysis

• Cross-country analysis
• Tax-return administrative data

• Randomized field experiments

• Lab experiments

• Bunching at notches and kinks

• Traces of evasion

**THE Tax Base**

• Optimal commodity taxation
• Externalities and Internalities

• Cigarettes and Internalities

• Horizontal equity

Consumption Versus Income Taxation

• Policy background
• Optimal taxation over time

• Empirical evidence about saving

• Estate taxation

Evasion

• Overview

- The extent and nature of evasion

- Notification initiatives
Information Reporting


Withholding


The effect of tax rates


Network effects


Public Disclosure


- **Avoidance and income shifting**


- **Kinks and Notches**


IMPLEMENTING TAX SYSTEMS

• Policy background

• Lines and notches

• Labor supply elasticities

• The elasticity of taxable income

• Mobility
Moretti, Enrico, and Daniel Wilson, “The Effect of State Taxes on the Geo-graphical
Location of Top Earners: Evidence from Star Scientists,” American Economic Re-
Young, Cristobal, Charles Varner, Ithai Lurie, and Rich Prisinzano, “Millionaire
Migration and the Demography of the Elite: Implications for American Tax Pol-

- Taxation in Developing Countries
M. Waseem. "Overclaimed Refunds, Undeclared Sales, and Invoice Mills: Nature
M. Waseem. "Information, Asymmetric Incentives, Or Withholding? Understand-
ing the Self-Enforcement of Value-Added Tax", June 2019, Revise & Resubmit Re-
view of Economics and Statistics
M. Waseem. "Does Cutting the Tax Rate to Zero Induce Behavior Different from
Other Tax Cuts? Evidence from Pakistan” March 2019; Accepted Review of Eco-
nomics and Statistics
P. Carrillo, D. Pomeranz, and M. Singhal. Dodging the Taxman: Firm Misreporting
9:2 (2017), 144-164.

Optimal Tax Systems

- Extending optimal tax theory
J. Slemrod, “Optimal Taxation and Optimal Tax Systems,” Journal of Economic Per-
J. Slemrod and S. Yitzhaki, "Tax Avoidance, Evasion, and Administration," in A.
Auerbach and M. Feldstein (eds.), Handbook of Public Economics, Vol. 3 (Amster-
S. Yitzhaki, “A Note on Optimal Taxation and Administrative Costs,” American
Economic Review, 69 No. 3 (June, 1979): 475-480.
N. Stern, “Optimum Taxation with Errors in Administration,” Journal of Public Eco-
nomics, 17 No. 2 (March, 1982): 181-211.
J. Mayshar, “Taxation with Costly Administration,” Scandinavian Journal of Eco-
J. Slemrod and S. Yitzhaki, “The Optimal Size of a Tax Collection Agency,” Scandi-
J. Slemrod and W. Kopczuk, "The Optimal Elasticity of Taxable Income," Journal of
Public Economics, 84 No. 1 (April, 2002): 91-112.
J. Slemrod and S. Yitzhaki, “The Cost of Taxation and the Marginal Efficiency Cost
of Funds,” IMF Staff Papers, 43 No. 1 (March, 1996).
R. Chetty. “Is the Taxable Income Elasticity Sufficient to Calculate Deadweight Loss?
The Implications of Evasion and Avoidance.” American Economic Journal—Policy,
1:2. 2009. 31-52.
R. Gordon and W. Li, “Tax Structure in Developing Countries: Many Puzzles and a

• The role of firms and the informal economy

Behavioral Tax

• Heuristics and biases
Salience and information

Optimal tax with behavioral agents

Corporate Taxation

Dividends and other distributions

- Debt, equity and acquisitions

- Investment

**International Taxation**

- **Foreign Direct Investment**
  
  
  
  
  
  
  
  
  
  
  

- International borrowing


- Tax avoidance


- Tax havens


Mihir A. Desai, C. Fritz Foley, and James R. Hines Jr., The demand for tax haven
Tina Klautke and Alfons J. Weichenrieder, Interest income tax evasion, the EU savings directive, and capital market effects, Fiscal Studies 31:1 2010. 151-170.
Qing Hong and Michael Smart, In praise of tax havens: International tax planning and foreign direct investment, European Economic Review 54:1. 2010. 82-95.

• International policy implications


LOCAL PUBLIC ECONOMICS

• Introduction


- Sorting
  
  
  
  
  
  
  

- Tax Competition and Other Mechanisms
  
  
  
  
  Michael Keen, Preferential regimes can make tax competition less harmful, National Tax Journal, December 2001, 54 (4), 757-762.
  
  
  Michael J. Keen and Christos Kotsogiannis, Does federalism lead to excessively high
James R. Hines Jr. and Lawrence H. Summers, How globalization affects tax design,
in Jeffrey R. Brown and James M. Poterba, eds. Tax Policy and the Economy, Volume
Zodrow, George R., and Peter Mieszkowski. 1986. “Pigou, Tiebout, Property Taxa-
tion, and the Underprovision of Local Public Goods.” Journal of Urban Economics,
Nielsen, Søren Bo. 2001. A Simple Model of Commodity Taxation and Cross-Border

• Empirical Identification of Tax Competition and Bidding
Economy.
from a Property Tax Reform in Finland. Journal of Public Economics, 96(7-8): 584-
595.
Agrawal, David R. 2016. The Internet as a Tax Haven? The Eect of the Internet on
Brueckner, Jan K. 2003. Strategic Interaction Among Governments: An Overview of
Mast, Evan. 2019. Race to the Bottom? Local Tax Break Competition and Business

• Spatial General Equilibrium and Spatial Public Finance
Suárez Serrato, Juan Carlos, and Owen Zidar. 2016. Who Benefits from State Corpo-
rate Tax Cuts? A Local Labor Markets Approach with Heterogeneous Firms. Amer-
ican Economic Review, 106(9): 2582-2624.
Fajgelbaum, Pablo, Eduardo Morales, Juan Carlos Suárez Serrato, and Owen Zidar.