Ec 684: Graduate Public Economics

Instructors: Ashley C. Craig, ashcraig@umich.edu

Logistics: Two lectures per week (Monday/Wednesday) from 1:00 to 2:30 in 171 Lorch Hall

Office Hours:
10 minutes: https://ashcraig.appointlet.com/s/10m
20 minutes: https://ashcraig.appointlet.com/s/20m
(Please email me if you need a longer meeting.)

Ongoing Feedback and Suggestions: I would greatly value feedback on the course, and will do my best to incorporate it as we go. Please constructively criticize, just as I will try to do for your research!

Description: This is the third quarter of the Public Economics sequence of the University of Michigan graduate program in economics. The course asks what role governments should play in the economy, with the aim of developing students’ understanding of the basic theoretical models and tools used in the field. We will cover the philosophical foundations of Public Economics, key empirical facts, labor income and consumption taxation, externalities, and human capital.

Seminars: Students are strongly encouraged to attend the Public Economics Free Lunch Seminar (PFFLS, pronounced “puffles”), the Monday PF seminar, and all job talks related to your fields or interests. If you are not subscribed to the PF mailing list, please email Mary Ceccanese (ceccanes@umich.edu).

Electronics Policy: You are welcome to use a computer to take notes or pull up relevant course materials. However, please do your online shopping elsewhere or at other times.

Auditing: Individuals who are not taking the course for credit will not automatically be allowed to attend. If there is space, I will allow senior PF students to attend, providing that they agree to meet occasionally with students who are taking the course for credit.

Grading: The grade for the whole course (Craig + Hines) is based on two of my problem sets (10% each), a replication exercise (30%), a mid-term exam (15%), and assessments to be assigned later by Jim (35%). Since you will have plenty of time to complete each of the course requirements, I will not grant extensions for any aspect of the assignments, except under truly exceptional circumstances.

Problem Set Guidelines: These will be comprised of analytical questions + some programming. Questions will be distributed at least 2 weeks before the due dates. You are encouraged to discuss these questions with each other, but must write up solutions on your own. Attempt questions on your own first. Otherwise, you will not develop the skills you will need on the final and field exams (and in your research). Your solutions, including working, are to be submitted on Canvas. I suggest using LyX. These problem sets will be hard and time-consuming. Do not attempt to do them at the last minute.

Replication Exercise Guidelines: The goal of this exercise is to replicate and extend an empirical paper of your choice that is related to public economics. Your replication exercise should consist of three parts. First, review the paper as if you were asked to write a referee report. Second, replicate the results and discuss potential differences between your own results and what is reported in the paper. Finally, extend the paper. This is really an opportunity. Pick a topic that you find exciting and want to explore. This will give you a chance to get involved with the literature and get your hands dirty in the relevant data. Your extension could be a starting point for your third year paper, or perhaps something more!

Choose a working paper or a paper published within the last five years, which is not extensively covered in class, and which has a significant empirical component. Good sources for potential papers include the
EC 684: GRADUATE PUBLIC ECONOMICS

NBER Public Economics Working Papers or the American Economic Review, which requires authors to make (non-proprietary) datasets available online. Email me with your choice by Feb 5. The final product is then due by email on Apr 20. Include your code, your log files, and the original paper. Ideally, the final results should be replicable by running a single file.

**Referee Report:** What is the research question? Is that an important contribution? What does the paper claim to show? Do they convince you? In answering these questions, you might think about the ideal experiment you would like to run to answer the authors’ question, whether the dataset they use is appropriate, the sources of identification in the paper, assumptions needed to justify the empirical strategy, alternative explanations for the findings, and the literature the paper extends.

**Replication:** Gather the data used in the paper from public information or by emailing the authors. If you email the authors, let them know that you are seeking to replicate and extend their results for a graduate course at the University of Michigan. Replicate the main tables and figures. (Note: it is crucial that you write up your own code for the replication and do not rely on the code provided by the authors.) Discuss your findings and compare them to those of the paper. Discuss any differences.

**Extension:** Extend the paper in an interesting way. For instance, you could test whether the findings can be replicated in another setting where one would expect the hypothesis/mechanism/empirical relationship to be applicable. You could also extend the paper by running additional specifications on the dataset used in the paper, e.g., to test a different mechanism.

**Electronic Submission:** All assignments, including problem sets are due electronically. While you can scan handwritten answers if you insist, I very strongly recommend that you learn how to use LyX, LaTeX, or a similar tool. This will be essential in your research.

**Midterm Exam Guidelines:** The midterm will cover the entire quarter. It will feature analytical questions, loosely in the style of the problem sets. They will span a range of difficulty levels, and many will require you to think on your feet. At least one question is likely to be extremely challenging, and may even ask you to to attempt to solve an open question in Public Economics. Good luck!

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<th>Assignment</th>
<th>Part</th>
<th>Points</th>
<th>Due Date/Time</th>
<th>Where</th>
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</thead>
<tbody>
<tr>
<td>Problem Set 1</td>
<td></td>
<td>10 pts</td>
<td>Feb 10</td>
<td>Canvas</td>
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<tr>
<td>Problem Set 2</td>
<td></td>
<td>10 pts</td>
<td>Feb 19</td>
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<td>Replication</td>
<td>Topic</td>
<td>30 pts</td>
<td>Feb 5</td>
<td>Email</td>
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<td>Writeup/Code</td>
<td>30 pts</td>
<td>Apr 20</td>
<td>Email</td>
</tr>
<tr>
<td>Midterm Exam</td>
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<td>15 pts</td>
<td>Feb 24</td>
<td>Class</td>
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<td>Other Hines Assessments</td>
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<td>35 pts</td>
<td>From Feb 26</td>
<td>TBA</td>
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**Academic Integrity:** The assignments in this class are not group projects. Although discussion of problem set questions is encouraged, each submitted assignment must reflect your own work. Plagiarism will not be tolerated. If you are uncertain about what constitutes plagiarism, you must contact me prior to submitting an assignment to review these concerns. The Department’s policy on academic integrity is posted at: https://lsa.umich.edu/content/dam/econ-assets/Econdocs/Academic%20Misconduct.pdf.

**Mental Health:** If you or someone you know is overwhelmed, depressed, and/or in need of support, do not hesitate to talk to me or others. For immediate help, contact Counseling and Psychological Services (CAPS) at (734) 764-8312 and https://caps.umich.edu/ during and after hours, on weekends and holidays, or through its counselors in schools on North and Central Campus. You may also consult the University Health Service (UHS) at (734) 764-8320 and https://www.uhs.umich.edu/mentalhealthsvcs,
or for alcohol or drug concerns, see www.uhs.umich.edu/aodresources. For a listing of other mental health resources available on and off campus, visit: http://umich.edu/~mhealth/.

Acknowledgements: This course and the associated materials build on the work of Stefanie Stantcheva, Raj Chetty, Emmanuel Saez, Nathan Hendren, Casey Rothschild, Josh Abel, Anthony Yu, Andrew Garin and many others indirectly. Hopefully you will build on my work as future PF teachers.

Readings: The course calendar is below. Double-starred readings (**) are required. Other readings are supplemental and optional. There is no textbook. The reading list is subject to change over the semester. The most current draft of the syllabus will be posted to Canvas.

Reading List

Jan 8 (Wed) 1. Introduction to Public Economics
- **Craig, A. (2019), Econ 684 Syllabus.
- **Explore this tool: https://graphics.wsj.com/what-percent/

Jan 13 (Mon) 2. Tax Incidence

Jan 15 (Wed) 3. Efficiency Costs of Taxation
- **MWG Chapter 3 (if you need a refresher on the basics)

Jan 20 (Mon) Vacation: No Class

Jan 22 (Wed) 4. Welfare Functions, Equality of Opportunity
EC 684: GRADUATE PUBLIC ECONOMICS

“Winter” 2020


Jan 27 (Mon) 5. Optimal Income Taxation (Linear)

Jan 29 (Wed) 6. Optimal Income Taxation (Non-linear)

Feb 3 (Mon) 7. Optimal Income Taxation (Extensions)
Feb 5 (Wed) 8. Taxes, Labor Supply and Reported Income (Paper Choice for Replication Due)

Feb 10 (Mon) 9. Commodity Taxation (PSET 1 Due)
Feb 12 (Wed) 10. Externalities & Other Spillovers

Feb 17 (Mon) 11. Human Capital

Mar 9 (Mon)  Second Hines Lecture

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Apr 20 (Mon)  Last Hines Lecture (Replication Exercise Due)