



Economics 810: Advanced Macroeconomic Theory

Meeting Time and Location: Monday/Wednesday 2:30-3:45 at 4308 SS

Instructional Mode: All Face-to-Face

Credit Hours: This 3 credit course has two 75 min lectures. Students are expected to work approximately 6 hours outside class to complete assignments and learn the relevant material.

INSTRUCTOR

Instructor Title and Name: Assistant Professor Enghin Atalay

Instructor Availability:

7426 Sewell Social Science.

Office Hours: If I'm in my office, feel free to drop by whenever. No need to make an appointment.

Instructor Email: eatalay@ssc.wisc.edu

OFFICIAL COURSE DESCRIPTION

The course will be divided into three main parts.

Topic 1: Micro Shocks and Aggregate Fluctuations

How activity is distributed across firms and industries shapes aggregate volatility. The first two papers in this section link simple statistics — the granular residual in Gabaix (2011) and fundamental volatility in Carvalho and Gabaix (2013) — to the distribution of aggregate fluctuations. Building off these results, the next two papers apply dsge multi-sector (or multi-firm) models to estimate the importance of aggregate vs. sectoral shocks.

- January 24: Gabaix, Xavier, 2011. "The Granular Origins of Aggregate Fluctuations." *Econometrica*, 79(3): 733-772. ★
- January 29: Carvalho, Vasco M. and Xavier Gabaix, 2013. "The Great Diversification and Its Undoing." *American Economic Review*, 103(5): 1697-1727. ★
- January 31: Foerster, Andrew, Pierre-Daniel Sarte, and Mark Watson, 2011. "Sectoral vs. Aggregate Shocks: A Structural Factor Analysis of Industrial Production." *Journal of Political Economy*, 119(1): 1-38. ★

- February 5: Atalay, Englin 2017. "How Important Are Sectoral Shocks?" *American Economic Journal: Macroeconomics*, 9(4): 254-280.

Optional Papers.

- Mathieu Taschereau-Dumouchel. 2017. "Cascades and Fluctuations in an Economy with an Endogenous Production Network." mimeo
- Baqaee David, and Emmanuel Farhi. 2017. "The Macroeconomic Impact of Microeconomic Shocks: Beyond Hulten's Theorem." mimeo.
- Barrot and Sauvagnat. 2016. "Input specificity and the propagation of idiosyncratic shocks in production networks." *Quarterly Journal of Economics*, 131(3): 1543-1592.
- Lim, Kevin. 2017. "Firm-to-firm Trade in Sticky Production Networks." mimeo.
- Oberfield, Ezra. 2017. "A Theory of Input-Output Architecture." mimeo.

Topic 2: Changes in Occupational Structure

Coinciding with the increase in wage income inequality, firms' investment in computer capital has increased considerably (reflecting advances in information technology). These investments in computer capital have altered the tasks which workers in different occupations perform, and has shifted the demand for workers across occupations. In this section, we discuss how occupational task content is measured, and how changes in the wage distribution can be linked to these changes in occupations' task content. Background reading for this section includes Acemoglu and Autor (2011, Skills, Tasks and Technologies: Implications for Employment and Earnings.)

- February 7: Krusell, Per, Lee Ohanian, José Víctor Ríos-Rull, and Gianluca Violante. 2000. "Capital-skill complementarity and inequality: A macroeconomic analysis." *Econometrica*, 68 (5), 1029--1053.
- February 7: Autor, David H., Levy, Murnane. 2003. "The Skill Content of Recent Technological Change." *Quarterly Journal of Economics*, 118(4): 1279-1333.★
- February 12: Autor, David H. and David Dorn. 2013. "The Growth of Low-Skill Service Jobs and the Polarization of the US Labor Market." *American Economic Review*, 103(5): 1553-97.★
- February 14-19: Burstein, Ariel, Eduardo Morales, and Jonathan Vogel. 2016. "Changes in between-group inequality: computers, occupations, and international trade." mimeo.★
- February 19: Firpo, Sergio, Nicole M. Fortin, and Thomas Lemieux. 2014. "Occupational Tasks and Changes in the Wage Structure." mimeo.
- February 21-26: Atalay, Englin, Phai Phongthientham, Sebastian Sotelo, and Daniel Tannenbaum. 2017. "The Evolving U.S. Occupational Structure." mimeo.★

Optional Papers:

- Deming, David. 2017: "The Growing Importance of Social Skills in the Labor Market." *Quarterly Journal of Economics*, 132(4), 1593--1640.
- Beaudry, Paul, David Green, and Benjamin Sand. 2016. "The Great Reversal in the Demand for Skill and Cognitive Tasks." *Journal of Labor Economics*, 34(1): S199:S247.
- Acemoglu, Daron, and Pascual Restrepo. 2017. "The Race Between Machine and Man: Implications of Technology for Growth, Factor Shares and Employment." *American Economic Review*, forthcoming.

- Hoberg, Gerard, and Gordon Philips. 2016. "Text-Based Network Industries and Endogenous Product Differentiation." *Journal of Political Economy*, 124(5): 1423-1465.
- Mann, Katja, and Lukas Püttmann. 2017. "Benign Effects of Automation: New Evidence from Patent Texts." Mimeo.

Not a Topic, Topic 3: Student Presentations

- February 28, March 5, 7: Student Presentations on the optional papers.
- March 7, 12: Student Presentations on a classmate's final paper proposal.

GRADING

Your grade will be determined by class participation, occasional assignments, reading summaries, in-class presentations, and a final project.

There will be two sets of presentations, each at the end of the half semester.

The first presentation will be a 50 minute discussion of one of the "optional papers" listed below, which you will develop and present with a classmate.

The second presentation will be a 10-15 minute discussion of the proposals of one of your classmates. For more on this, see problem set 3.

FINAL PAPER AND PRESENTATION

Due at the end of the semester. Not quite a full-fledged, complete product. Rather, you should have a twelve-to-fifteen page "plan" for a research paper. Within this plan, try to address the following questions:

- a) What is the question that you are trying to answer? Why is this an interesting question?
- b) What have been past attempts at answering this question? Is your question relevant for other literatures?
- c) If applicable: What is the theoretical framework on which your question is being addressed? You can go in to some detail, here.
- d) What are the data source(s) that you will use? Why is this particular dataset appropriate? If you already have access to the data, what are some patterns in the data that are relevant for your question of interest?
- e) What econometric techniques will you use? Why are these techniques appropriate, and what may be some of the threats to the validity of the econometric strategy? If applicable: How does the econometric method relate to the theoretical framework that you have outlined in part (c)?

Also part of the Final Paper project will be a 30 minute presentation to the class. These presentations will take place at the end of the semester, sometime during the week of final exams.

In terms of content, the only requirement is that the paper have an empirical component. It does not directly need to be related to the material discussed in class. Your evaluation will be based both on your presentation and your final paper write-up.

Preliminary Steps for the Final Paper

By February 14: Submit a three page description with two potential ideas for your final paper (roughly one and a half pages each) and schedule a meeting with me so that we can discuss. By April 25: Send me a rough draft of your presentation slides. Again, schedule a meeting with me so that we can go over these slides together.

READING ASSIGNMENTS

Towards the goal of engendering your participation in class, I would like for you to read and write a short summary of the paper scheduled for that day's lecture. The summaries should be roughly one page per paper. In these summaries, you should explain what goal the paper is trying to accomplish, why this is an interesting goal, and the paper's main strategy for addressing its research question. In addition, include anything about the paper that you found particularly confusing or interesting. These summaries are due the day before lecture, to be turned in via e-mail. You only need to do the ★'d papers, plus the papers your classmates are presenting for their 50 minute presentations. You may skip doing summaries for **three** of these papers.

RULES, RIGHTS & RESPONSIBILITIES

- See the Guide's to [Rules, Rights and Responsibilities](#)

ACADEMIC INTEGRITY

By enrolling in this course, each student assumes the responsibilities of an active participant in UW-Madison's community of scholars in which everyone's academic work and behavior are held to the highest academic integrity standards. Academic misconduct compromises the integrity of the university. Cheating, fabrication, plagiarism, unauthorized collaboration, and helping others commit these acts are examples of academic misconduct, which can result in disciplinary action. This includes but is not limited to failure on the assignment/course, disciplinary probation, or suspension. Substantial or repeated cases of misconduct will be forwarded to the Office of Student Conduct & Community Standards for additional review. For more information, refer to studentconduct.wiscweb.wisc.edu/academic-integrity/.

ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES

McBurney Disability Resource Center syllabus statement: "The University of Wisconsin-Madison supports the right of all enrolled students to a full and equal educational opportunity. The Americans with Disabilities Act (ADA), Wisconsin State Statute (36.12), and UW-Madison policy (Faculty Document 1071) require that students with disabilities be reasonably accommodated in instruction and campus life. Reasonable accommodations for students with disabilities is a shared faculty and student responsibility. Students are expected to inform faculty [me] of their need for instructional accommodations by the end of the third week of the semester, or as soon as possible after a disability has been incurred or recognized. Faculty [I],

will work either directly with the student [you] or in coordination with the McBurney Center to identify and provide reasonable instructional accommodations. Disability information, including instructional accommodations as part of a student's educational record, is confidential and protected under FERPA." <http://mcburney.wisc.edu/facstaffother/faculty/syllabus.php>

DIVERSITY & INCLUSION

Institutional statement on diversity: "Diversity is a source of strength, creativity, and innovation for UW-Madison. We value the contributions of each person and respect the profound ways their identity, culture, background, experience, status, abilities, and opinion enrich the university community. We commit ourselves to the pursuit of excellence in teaching, research, outreach, and diversity as inextricably linked goals.

The University of Wisconsin-Madison fulfills its public mission by creating a welcoming and inclusive community for people from every background – people who as students, faculty, and staff serve Wisconsin and the world." <https://diversity.wisc.edu/>

Misconduct Statement

Academic Integrity is critical to maintaining fair and knowledge based learning at UW Madison. Academic dishonesty is a serious violation: it undermines the bonds of trust and honesty between members of our academic community, degrades the value of your degree and defrauds those who may eventually depend upon your knowledge and integrity.

Examples of academic misconduct include, but are not limited to: cheating on an examination (copying from another student's paper, referring to materials on the exam other than those explicitly permitted, continuing to work on an exam after the time has expired, turning in an exam for regrading after making changes to the exam), copying the homework of someone else, submitting for credit work done by someone else, stealing examinations or course materials, tampering with the grade records or with another student's work, or knowingly and intentionally assisting another student in any of the above. Students are reminded that online sources, including anonymous or unattributed ones like Wikipedia, still need to be cited like any other source; and copying from any source without attribution is considered plagiarism.

The Dept. of Economics will deal with these offenses harshly following [UWS14 procedures](#):

1. The penalty for misconduct in most cases will be removal from the course and a failing grade,
2. The department will inform the Dean of Students as required and additional sanctions may be applied.
3. The department will keep an internal record of misconduct incidents. This information will be made available to teaching faculty writing recommendation letters and to admission offices of the School of Business and Engineering.

If you think you see incidents of misconduct, you should tell your instructor about them, in which case they will take appropriate action and protect your identity. You could also choose to contact our administrator Tammy Herbst -Koel (therbst@wisc.edu) and your identity will be kept confidential.

For more information, refer to <https://www.students.wisc.edu/doso/academic-integrity/>

Grievance Procedure

The Department of Economics has developed a grievance procedure through which you may register comments or complaints about a course, an instructor, or a teaching assistant. The Department continues to provide a course evaluation each semester in every class. If you wish to make anonymous complaints to an instructor or teaching assistant, the appropriate vehicle is the course evaluation. If you have a disagreement with an instructor or a teaching assistant, we strongly encourage you to try to resolve the dispute with him or her directly. The grievance procedure is designed for situations where neither of these channels is appropriate.

If you wish to file a grievance, you should go to room 7238 Social Science and request a Course Comment Sheet. When completing the comment sheet, you will need to provide a detailed statement that describes what aspects of the course you find unsatisfactory. You will need to sign the sheet and provide your student identification number, your address, and a phone where you can be reached. The Department plans to investigate comments fully and will respond in

writing to complaints.

Your name, address, phone number, and student ID number will not be revealed to the instructor or teaching assistant involved and will be treated as confidential. The Department needs this information, because it may become necessary for a commenting student to have a meeting with the department chair or a nominee to gather additional information. A name and address are necessary for providing a written response.