Economics 417: Research in Industrial Organization (Seminar) Spring 2022

Syllabus

February 18, 2022

Instructor: Dr. Alexandr Moskalev

(he/him/his)

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Class: Wednesday, 6:30 pm to 8:30 pm, King 235

Office Hours: Monday 12:00 - 1:00 pm, Rice Hall 210 and by appointment.

Wednesday 4:30 - 5:30 pm, Rice Hall 210 Friday 12:00 - 1:00 pm, Rice Hall 210

Please check https://alexmoskalev.com/officehours for any changes and to request an appointment.

Course Description: This course builds upon economic theory, empirical evidence, and methods with an aim to study topics in industrial organization. At seminars, we will be covering published research papers to study methods, gather ideas, and learn how to efficiently work with the literature. Students will actively participate in seminars by reading the assigned papers in-advance, preparing questions, presenting and reviewing the assigned papers. Over the course of the term, each student will also work on an original research paper. This is a comprehensive individual project that includes formulating a research question, finding relevant datasets, choosing an appropriate empirical framework, presenting your work to peers, evaluating peers' proposals, processing data, and writing the resulting paper.

Learning Goals:

- To develop skills in reading and evaluating empirical research papers in economics.
- To understand the process of conducting original empirical research.
- To get a hands-on experience of working with research data.

Prerequisites: Economics 253 (Intermediate Microeconomics) and 255 (Econometrics) are required. You should also have some prior experience with data analysis and application of econometrics techniques. Economics 317 is helpful, but not required.

Readings: This syllabus contains a list of required readings (papers) for this course. You can find that list on Blackboard as well. While it is not a required reading, you may find the following book helpful: *Industrial Organization: Contemporary Theory and Empirical Applications* (Wiley-Blackwell, 2014) 5th Edition by Lynne Pepall, Dan Richards, and George Norman.

Grading: Letter grades will be based on a curve of students' total points. The curve will be based on what I deem an appropriate reflection of students' performance.

I will use the following components for grading purposes:

10%	Two referee reports on assigned readings
10% ?	Five sets of discussion questions on assigned readings
10% 📩	Class participation
10%	Individual presentation of assigned reading
10%	Two referee reports on peers' research
50%	Research paper

Two referee reports on assigned readings: you will choose two papers from the reading list (different from the one you are presenting personally) to prepare referee reports. Your reports should be 600 - 1000 words and are due at 5 pm the day before the assigned reading's meeting date. Please review Berk et al. (2015) to obtain the best result.

? Five sets of discussion questions on assigned readings: you will choose five meetings, for which you are not preparing an in-class presentation or a referee report, to submit five critical questions (per reading) about the reading. The questions are due at 5 pm the day before the reading's meeting date.

Questions should have enough depth (should not be basic true/false/yes/no or clarifying questions) and reflect your critical view on the paper.

- ★ Class participation: active class participation is important. A student missing a class or not participating in the discussion will accumulate fewer participation points.
- Individual presentation of assigned reading: On a day when you are not submitting a referee report or a question list, you will give a 30-minute presentation about one of the course readings. The date assignment will be made early in the semester. If need arises, I may give additional class participation points to the first few presenters to incentivize participation for dates with a limited time to prepare. I will collect students' preferences over the dates they would want to present at, in an attempt to find an assignment that suits everybody. If no such assignment can be found and there is no clear way to resolve scheduling disagreements, I will employ an 'auction approach' where students will bid score points for the desired presentation date in order to establish the fair point rewards that support maximum participation.
- Two referee reports on peers' research: In the last month of this course you will write two referee reports on your classmates' drafts. In return, you will receive two reports from your classmates on your draft if you submit it on time. If you miss the draft submission deadline, you might not get a peer referee report assignments.
- Research Paper: You will write a research paper on an industrial organization topic of your choice. The final result should contain at least 15 pages of double-spaced, 12 pt Times New Roman/(Roman if IATEX), 1 inch margins. It should be original empirical work. Unless noted otherwise, research paper progress/assignments will generally be due on Saturdays at 5:00 pm.

I will use the following breakdown of the 50% that research paper project contributes to your course grade:

• (3%) Description of research questions due March 5 at 5:00 pm. Please describe the research questions in industrial organization that you plan to investigate. You

- should put more emphasis on questions that you think are doable (obtaining data, selecting/developing a model, running regression analysis, describing the results) within the rather short timeframe we have in this course.
- (5%) Literature review due March 19 at 5:00 pm. Explore the most relevant academic papers in the chosen area. Review arguments the literature is making, discuss how different studies touch upon the research question(s) you intend to work on, make a comparison between their results, and explain how your research project will fit the existing literature. Make note of methods used in the area. There is no specific number of papers that you need to include in the literature review. Some research questions may have just one or two core papers, while other questions might have been covered in many more. You should use your own judgement to identify the core papers. The review should be approximately 4 pages long (750 1000 words).
- (5%) Detailed proposal due April 16 at 5:00 pm. At this step you should obtain all relevant datasets that you plan to use in your paper and prepare a detailed research proposal that includes:
 - An introduction where you clearly state your research question, explain its importance, and describe why the reader should be interested in your research. Introduction is also a good place to include the literature review if you can make a smooth transition, but make sure to talk about your research/contribution first. You may also include a separate literature review section if the introduction is too long.
 - An economic theory section where you discuss a possible answer to your research question from the economic theory perspective.
 - A preliminary data and methods section where you identify all data sources you gathered and plan to use in the research paper, describe methods that you think will be appropriate for the data/research question combination, discuss possible issues and endogeneity concerns. You should also include a regression equation (or other formal description if your method of choice does not have a regression equation).

Cite relevant works when necessary. You should aim for about 7 pages (1400 - 2000 words).

- (2%) In-class research paper roundtable on April 20. Please come to class prepared to briefly describe your research paper project (3 5 minutes) and a row from your dataset. Following your brief presentation, you will receive feedback from the audience.
- (5%) Data, methods, and empirical results due April 30 at 5:00 pm. By this time you should complete the bulk of the empirical work. Your submission for this step should include:
 - A completed "Data" section where you describe the datasets. Make sure to include a table (or a figure) with summary statistics.
 - A mostly completed "Methods" section where you carefully describe the empirical methods you are using. Make sure to cover the assumptions that determine the methods' applicability, provide the regression equation (or other formal description of your model), and talk about the particular method(s)' implementation you've used in the project.
 - A well-advanced "Results" section where you provide a nicely formatted regression table (no raw command output please) and briefly speak about the results. The regression table should match the regression equation from "Methods" section.

You should aim for about 10 pages or more (2500 words).

- (0%) Rough draft due May 7 at 5:00 pm. You need to provide a rough draft of your paper by the deadline for other students to use it in their peer-referee reports. If you miss the deadline you may not get your own peer-referee reports assignment.
- \bullet (5%) In-class presentation on May 18/25. You will present your research in class on one of these two days. Each student will get 15 minutes to present and some more time for questions/comments from the audience.
- (25%) Final Paper due June 3 at 9:00 pm.

Given the sheer number of submissions I will receive in this course, I will primarily grade them on a check/check-plus basis. Therefore, I will not be able to provide that much feedback in a written format, but I'm happy to discuss your work during office hours.

Schedule: This is an approximation of the desired schedule. Actual topics and their dates may vary depending on how quickly we progress through the material.

Introduction

Feb. 23

♣ Learning PortalRegistration Course information and requirements. Scheduling of assigned readings.





Watch Linear Regression

At this point you should be looking for research questions for your paper project.

Class meetings and office hours will be remote on zoom for the first week. You need to be logged into your Oberlin zoom account to join. Please follow https://alexmoskalev.com/zoom to connect.

Office hours this day will be remote as well.

Mar. 2 ⚠ Research questionsdue soon

The first student presentation of an assigned reading



Angrist & Pischke (2010)



Watch Panel Data Models

Once you submit your research questions, please continue to explore the literature that covers the area of industrial organization that you are interested in. Make notes of the papers you read to use them later in the literature review.

Price Discrimination

Mar. 9



Chandra et al. (2017)

Read Primer on Fixed Effects, Blissett (2017).

You should be working on the literature review now. You may somewhat adjust your research question(s) as you see fit. Make notes of what kind of datasets the literature uses.

Mar. 16 ⚠ Literature reviewdue soon



Lewis (2021)



Watch Probit and Logit Models

Once you submit your literature review, please continue to focus your effort on finding a dataset(s) that is suitable for answering your research question(s).

Online Advertising

Mar. 23



Blake et al. (2015)

By now you should have obtained most of the necessary data (or have a clear path of doing so within the next two weeks).

Entry Deterrence

Mar. 30



Goolsbee & Syverson (2008)



Watch Survival Analysis

Start working on your detailed proposal by identifying the one research question that you will investigate with the data you've obtained. Think about economic theory that might provide an answer to your research question, what would that answer be, and what model/regression equation you would use to answer it with the data you have.

Vertical Relationships

Apr. 13



Hastings (2004)

⚠ Detailed proposal $due \ soon$

Once you submit your detailed proposal, please continue your data analysis work. You should be able to run (the code for) the basic form of your regression analysis (or other data-based model) around this time.

Incidence

Apr. 20

In-class research paper roundtable



Busse et al. (2006)



Watch Propensity Score Matching

In class you will briefly present your research paper project and dataset(s) you are using. Please collect the feedback your peers are providing and start working on the data, methods, and empirical results write-up. In parallel, you should continue developing/refining your code/model if there are additional results/robustness checks/tests that you want to do. By now, your main regression should include all covariates/specifications that you described in the detailed proposal and you should have the main empirical results ready.

Regulation

Apr. 27



Abadie et al. (2010)

⚠ Empirical results $due \ soon$

Once you submit your data, methods, and empirical results write-up, please start working on combining your work into a unified rough draft of your paper. There might still (and will) be work that you could do, but at this point you need to have a version of your paper that has all necessary chapters that are coherent with each other.

Network Externalities and Two-Sided Markets

May 4

⚠ Rough draftdue soon

Corts & Lederman (2009)

Watch Instrumental Variables

Once you submit your rough draft, please start working on your in-class presentation and continue to work on improving your rough draft.

Technological Competition

May 11



Lee et al. (2011)



Watch Limited Dependent Variable Models

Since you will likely have other courses to deal with during the last couple of weeks, please do as much work on your paper as possible during this week, so you can get as close as possible to the final product. Unless formally permitted by the College, there will be no extensions for the Final Paper.

Student Research Presentations

May 18 Student Research Presentations

15 minutes per student to present

May 25 Student Research Presentations

♣ Peer-referee 15 minutes per student to present

reports due

Final Paper

Jun. 3 Final Paper is due June 3 at 9 pm

Graded Assignments:

Graded assignments must be submitted electronically using https://students.alexmoskalev.com/platform unless stated otherwise. You should have received your login instructions during the first lecture. Please keep in mind the following instructions regarding online assignment submissions.

- Please allow yourself enough time to submit the assignment. Uploads may be slow. Late assignments will incur score penalty.
- The assignment submission time is the timestamp of the latest upload for that assignment. You may leave empty slots if you have not solved all parts of the assignment.
- Unless stated otherwise, only valid PDF-format files will be accepted. There is no explicit limit on file size, but you should keep your files under 32 MiB to ensure that uploads will not fail too often.
- \blacksquare Extensions can only be granted before the deadline. You should use the electronic platform to apply for an extension. Some assignments cannot be extended. Assignments that can be extended will have a respective message if you have a positive extension balance.
- You should follow the prompted structure of a submission. For example, problem sets should be submitted problem-by-problem (separate files). This simplifies grading and saves time for the grading party. I and the teaching assistant may disregard all problems that were submitted using a wrong slot as well as submissions that include problems that should have been submitted elsewhere.

- Please write legibly. Any hard-to-read part of a submission may not receive credit.
- If you think that something is broken you should immediately contact me with the description of what is broken. Be ready to promptly respond to clarifying questions and to provide some technical details. If you delay, you may lose points for your submission or other activity that was interrupted.
- The system is monitored to ensure accurate measurement of submissions' timestamps.

If an assignment is submitted in an alternative way without a prior approval (e.g. a problem set being emailed instead of being uploaded) then a 30% score deduction can be applied to that assignment. Submissions made in an irregular way lead to delays in grading, misplaced papers, lost files, and unnecessary extra time being spent on tracking them down for grading. Therefore, it's best to follow a single systematic way.

My Role as Instructor: As an Instructor, I am not only responsible for helping you understand economic concepts, I am also an advocate in place to protect and enhance your learning experience. If there are issues with any parts of the class (and especially with parts that may be changed quickly and easily), please let me know.

Email Communication: I will try to respond to emails within 24-hour period during work days. To ensure that your emails are going to be marked correctly and processed smoothly, please send those from your @oberlin.edu address. Be aware that during the days immediately before any midterm or exam you may not get a timely response from me due to peaking number of emails. Please plan and study ahead. Before sending an email to me, check the course syllabus thoroughly (use the latest online version to find TBD/TBA information). In a case of multiple emails from one person in a short period of time or a difficult question asked, I also reserve a right to transfer the conversation to office hours.

I assume that emails sent to your @oberlin.edu address are read in a timely fashion. You may receive class-wide notifications as well as individual messages related to class activities, assignments submitted, midterms/final exam arrangements, etc. I also assume that your email box is secure since messages may contain details about your performance in the course and personal links to access course-related resources.

Electronic Devices: Please refrain from the use of cell phones, tablets, laptops, and any other electronic devices during the class time. You should also switch your devices into silent mode. Students with documented disabilities may receive a permission to use a device that is instrumental to their learning. Photography, voice, or video recordings of the class are not permitted without the instructor's consent.

Honor Code: Academic Integrity is of utmost importance for maintaining a high-trust Academic Environment. I expect all students to be familiar with and follow Oberlin's Honor Code.

Religious Holidays: I adhere to Oberlin's Religious Holiday Observance Policy. Please let me know about any schedule conflicts that might affect your activity in this class as soon as possible.

Students with Disabilities: If you have a disability that requires an accommodation, please let me know as soon as possible. You will need to arrange for it through the Student Accessibility Services. Please contact the Student Accessibility Services right away to start the documentation process. If you substantially delay your request, I may not be able to make necessary arrangements.

Disclaimer: I may adjust the syllabus if I believe it will serve the learning needs of the class. During the term, I may make statements about specific assets and asset classes, economic phenomena, behaviors of markets, firms and individuals, give opinion in relation to current/past events, and, among other things, discuss how certain situations will evolve or could have evolved under different sets of circumstances. Any information, idea, opinion, or other impression you get from this class should only be used for subject

learning purposes and should not be considered an advice.

Acknowledgements: I'm grateful to Viplav Saini and Paul Brehm for their assistance in preparation of this course. This and other course-related documents may use Emoji graphics licensed under CC-BY 4.0: https://creativecommons.org/licenses/by/4.0/ Copyright 2022 Twitter, Inc and other contributors.

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