

Seminar in Applied Economics

Professor Jason Barr

Email: jmbarr@newark.rutgers.edu

Office Hours: Via Zoom, Wednesday and Friday, 2:00 pm - 3:00 pm (or by appointment—just shoot me an email and we can pick a time to zoom)

Course website: Canvas

Course Time and Location: Tuesday & Thursday, 11:30 am – 12:50 pm, Engelhard 203

Course Overview: This is a **writing-intensive** seminar course. The goal of the course is for you to gain experience in research, econometric methods, and writing. You will need to give several presentations to the class, and you will be expected to participate in class discussions. Throughout the semester, I will be giving you several writing exercises. **Attendance and participation are required.**

The culmination of the semester will be a research paper. You will conduct an original econometric research project using one of the data sets that I will post early in the semester. Your chosen topic will be presented to the class and class members will offer constructive suggestions.

Prerequisites: Successful completion of both Statistical Methods (220:231) and Introduction to Econometrics (220:322). Some knowledge of calculus is expected. **If have not take Econometrics (or have not passed it), you CANNOT takes this class. You must drop it immediately.**

COVID Policies: Masks: In order to protect the health and well-being of all members of the Rutgers-Newark community, **masks must be worn by all persons inside campus buildings** when in the presence of others, and in buildings in non-private enclosed settings (e.g., common workspaces, workstations, meeting rooms, classrooms, etc.). Masks should securely cover the nose and mouth. **Masks must be worn during class meetings.**

Each day before you arrive on campus or leave your residence hall, you must complete the brief survey on the My Campus Pass symptom checker self-screening app found at: [myRutgers Portal](#)

Required Software:

All students will have to choose one of two possible statistical software packages to do your projects. Either one is fine, but each has pros and cons, and you can decide which one is optimal for your needs.

Option #1 is Stata: Pro: Easy to use and I know this program inside and out and can help you quite easily. Cons: Stata is provided by a for-profit company, and you may have to pay for a license (if you have a work-study job or are affiliated with Rutgers in some other way, you may qualify for a free license through Rutgers. Go to <https://software.rutgers.edu/index/> and search for Stata and see if you can download it). The other con: If you are looking to get a job in data science, Stata is not as popular in the workplace as the program R.

For more information, here is software link at Rutgers, <https://software.rutgers.edu/product/1679> or visit <https://www.stata.com/> where you can probably get a student license. However, be warned, the student license may not allow you to work with the big data sets that I will be providing.

Option #2 is R. R is a free, open-source statistics program. Pros: Free to use, widely used outside of the academy, and if you plan to continue to your studies in the data sciences, it is worth the investment. Cons: The learning curve is a bit steeper. Also, though I know R a bit and can help you learn and navigate it,

you may need to spend more time googling or youtubing things to figure it out. If you want to use R, I recommend you use the Rstudio version: <https://www.rstudio.com/>

Stata and R are both available at Rutgers computer labs if you prefer to work on university machines. Also, you can probably use Stata or R via Rutgers remote computing access. See <https://it.rutgers.edu/software-portal/knowledgebase/additional-free-software-available-for-remote-use/> for more information.

Takeaway: If you just want to get through this class so you can get on with your life, Stata is easier to learn and use (but may require paying for a license). If you hope to improve your data science skills and want something on your resume that employers like to see, then go with R.

Econometrics Review: During the first few weeks of class, I will be reviewing econometric methods. I will be teaching mostly from the book A.H. Studenmund, *Using Econometrics*, 6th ed. (2011). I assume you are familiar with the concepts that were covered in Statistical Methods and Econometrics. You are free to use any Intro. to Econometrics book you have or want to buy. You can buy or rent Studenmund online.

After the econometric review, you will be choosing academic papers to read that are related to your own research. So you will submit possible papers and I will approve which ones you are to read. During the semester you need to be prepared to discuss them, either informal through class discussion or via oral presentations which we will schedule ahead of time.

Requirements and Grading

Class Attendance	20%
Online Quizzes (2 at 7.5% each)	15%
Paper Components	25%
Oral Presentations	15%
<u>Final Submitted Paper</u>	<u>25%</u>
Total	100%

Here are the requirements in more detail. I will be handing out guideline sheets for the various assignments during the early part of the semester.

- **Class Attendance:** Starting September 13, I will be taking attendance.
 - o Two or fewer unexcused absences: No impact on your class attendance grade (score for class attendance will be 100%)
 - o Three to four unexcused absences: Your class attendance grade falls to 70%.
 - o Five or more unexcused absences: You will get 0 for your class attendance grade (so after four unexcused absences your grade falls to a B automatically—and that’s the best you can do, assuming you get 100% for every other section).

An absence is “excused” if (a) you inform me of the reason **ahead of time**, (c) you have a reasonable excuse (e.g., illness) and (c) you provide proof (within a week of the absence). Failure to obey these rules will mean that the absence is unexcused.

- **Online Quizzes:** You will have two short online quizzes regarding econometric methods and interpreting regressions. They will be uploaded approximately in late Sept and mid-October, respectively. You will have a couple of days to do each one.

- **Paper Components:** Each of you will writing up a paper. I will be giving you a data set and you will select your research question and will then perform a regression analysis to answer the question. You will be working on the various parts of your paper throughout the semester. You will have deadlines to hand in drafts of parts of your paper (i.e., the introduction, the literature review, the discussion of the economic theory and model, the data and regressions, and the conclusion and general discussion). For each section you will get comments and a grade. You will have the chance to improve your grade with a revision. I will allow unlimited revisions. Information about the data sets and research questions will be given out early in the semester. You will receive zero grade for each component that is more than 5 days late and there will be penalty for all writes up that are late.
- **Presentations:** Throughout the semester you will have several presentations. You will have to discuss at least one academic article related to your paper topic and you will have to give presentations related to your term paper research. You should expect to give at least three presentations throughout the semester: one article review, one presentation about your topic and your hypotheses, and a third one about your final paper.
- **Final Paper:** The completed paper will be submitted at the end of the semester. The results of the paper will be presented to the class during the few weeks of the class.

Course Policies

1. Your final grade will be determined by both the quality of your work and the effort you make to achieve high-quality performance. Just because you are a senior does not mean you will automatically pass this class. If you perform below expectations, you will FAIL the class. Late assignments will not be tolerated. **If you hand in an assignment past the deadline, you will receive penalties. Please do not hand in stuff late—it's a bad sign and will reduce your grade.**
2. **Cheating and Academic Dishonesty** will NOT be tolerated and will be prosecuted to the full extent of university regulations. To familiarize yourself with these regulations see the University Policies (<http://academicintegrity.rutgers.edu/>). All final papers will be submitted through Turnitin to check for plagiarism. If you are unsure what constitutes plagiarisms please speak the to professor before you hand in your paper.
3. If you have a laptop you are encouraged to bring a laptop to class (not necessary and will not impact your grade). Assuming all goes smoothly with things, we can devote time to running regressions during class time so you can get feedback (let's see—fingers crossed).

Course Outline:

1. **Review of Econometrics.** I will spend the first few weeks of class reviewing regression methods. You will be given two on-line quizzes about this material during the first month of the semester. I plan to review about 10 chapters in the first month of the semester.
2. **Journal Articles.** Throughout the semester you will have to choose a few papers for your literature review. I will be asking you to present one or more of them to the class as way to foster class discussion on how to write an academic style paper and how to interpret regressions and present results.
3. **Stata and R Lessons:** I will teach you how to do statistical and regression analysis using standard packages in these programs.

4. **Oral Presentations:** Throughout the semester you will be giving oral presentations regarding the progress of your research project.