Last Revised: July 9, 2025

ECN 140: Econometrics
Summer Session 1 2025

Lecture: MTW 7:10 - 8:50 PM Teaching and Learning Complex 1214
Discussion A01: Th 2:10 - 3:50 PM via Zoom
Discussion A02: Th 4:10 - 5:50 PM via Zoom

Syllabus revision: this syllabus is subject to revisions.

Instructor: Dr. Kevin Dinh (kevdinh@ucdavis.edu)1
Office hours: Monday 5:30-6:30 PM via Zoom
Tuesday 5:30-6:30 PM in Dutton 3132

Teaching assistant: Maddie Ho
Office hours:

Course content: this course provides an introduction to econometric methods. The goal is to provide students with the knowledge to conduct their empirical research in economics, evaluate economic/business policy, and critically read the quantitative analysis of other researchers. In addition to using the computer as a tool for regression analysis, the course will focus on the underlying statistical models to help students understand when particular methods are likely to be valid or invalid. My goal is for you to walk from this class with the following:

1. Mathematical intuition underlying regression analysis
2. Foundational knowledge of the theorems and vocabulary needed to participate as an econometrician
3. Ability to derive, manipulate, and understand formulas
4. Ability to code in Stata
5. A well-polished writing sample.

Prerequisites: (ARE 100A or ECN 100A) and (ECN 102 or STA 108); or consent of the instructor. This course assumes that you have a strong foundation in algebra, calculus, and statistics.

Textbook: Introduction to Econometrics (Pearson Series in Economics) 4th Edition (Global Edition) by Stock and Watson. *You should be able to find a very inexpensive option online.*

Software: Stata (any version is OK)

- There are a few options for accessing Stata:
    1. Computer labs: 93 Hutchison and 2216 TCL
    2. Use the IET virtual lab at (http://virtuallab.ucdavis.edu); IET allows up to (only) 30 Stata users at the same time.
    3. Own six-month ($48) for Stata/BE through (http://www.stata.com. It is highly recommended that you purchase at least a six-month license for the empirical project. UCLA has nice online resources on this software at http://www.ats.ucla.edu/stat/stata.

- Students are required to use Stata in this course. The current version is Stata 19. But previous versions work just fine. Class examples will be illustrated using Stata, and students will be expected to use Stata for the empirical project.
- Do not include the source code in the main text for the empirical project. You must explain your work and your responses in English. Copy and pasting your code or a screenshot of the console output without an explanation will result in 0 points. There are no exceptions.

Classes: I will record every class and post to our Canvas Zoom page. I will **not** offer a live-streamed Zoom option.

Canvas: I will use the Canvas Announcement. Turn on notifications. Check the Canvas site regularly for posted materials, including lecture notes, example sheets, homework assignments/solutions, and datasets. The syllabus is subject to revisions, and you can find the latest version on Canvas.

Discussion sections: We have weekly discussion sections led by the teaching assistant. You can attend either section, as long as there is space. Priority will be given to students who are registered in their respective section. The tentative schedule is as follows:

- 1st week: HW 1
- 2nd week: sample midterm 1
- 3rd week: empirical project & HW 2
- 4th week: sample midterm 2
- 5th week: sample final

Homework: there are two *ungraded* assignments. Even though these are ungraded, completing these assignments is crucial to performing well in this class. It is your responsibility to check the solutions.

Grading Policy: Per department rules, I must curve the class to have a B- (2.7) average; however, if you all do well, I will NOT curve down. In other words, the curve can only help you. Your final grade will be the higher of the two options:

$$40\% \cdot \sum_{t=1}^{2} \text{Midterm}_t \quad + \quad 40\% \cdot \text{Final} \quad + \quad 20\% \cdot \text{Empirical Project} \quad + \quad 1\% \cdot \sum_{t=1}^{4} \text{BonusQ}_t$$

OR

$$30\% \cdot \sum_{t=1}^{2} \text{Midterm}_t \quad + \quad 30\% \cdot \text{Final} \quad + \quad 40\% \cdot \text{Empirical Project} \quad + \quad 1\% \cdot \sum_{t=1}^{4} \text{BonusQ}_t$$

1. **Exams**: all exams are in-class, where lectures are held.
   - Midterm dates and topics covered:
     - **Midterm 1 (July 7):** probability, statistics, simple linear regression, and hypothesis testing
     - **Midterm 2 (July 21):** multiple regression, binary dependent regressions, and instrumental variables
     - **Final (July 30):** cumulative; nonlinear regression functions, regression with panel data, difference-in-difference.
   - Composition:

  - 40% : *identical* to problems in the homework, lectures, or suggested practice problems.
  - 40% : variations of problems from homework, lecture, or suggested practice problems.
  - 20% : completely new problems.
- Closed book. No devices except a calculator (*you may use your own*).
- The exams are all cumulative based on the textbook chapters. They may also contain questions from ECN 102.
- Regrading: If you feel a question was unfairly graded or there was a mistake, email me and the TA within two days. We will go over the entire exam, not just the part(s) you want regraded. Your score may decrease or stay the same as a result. I am prohibited from regrading anything after the grades are released (https://registrar.ucdavis.edu/records/grades/changes).
- Tardiness: You will not get extra time if you show up late for the exam.
- Absences: there are no make-up exams. If you miss a midterm, you must email me with documented proof to be excused. If you have an excused absence, I will re-weight the missed exam into your final exam. Unexcused absences automatically result in a score of 0. If you miss more than one exam or final, you will automatically receive a zero for the second missed midterm or final. There are no exceptions.

2. **Empirical Project:** due July 24^{th}

- Grading policy for the empirical project:
  (a) 26% : does your paper satisfy the items from the project rubric?
  (b) 7% : did you fill out *all* rubric items with the corresponding page number in your paper? You must submit this to our class Canvas page here.
  (c) 10%: did you write your paper in your assigned Google doc link? I will inspect the history of your Google document link to verify you wrote this paper. Writing your paper elsewhere is not allowed. You cannot copy and paste your work into the Google doc. It must be type from start to finish in the Google doc, or you will receive a 0.
  (d) 27% : did you write the paper well and demonstrate knowledge from this course? If the grader cannot easily understand what you write, you will be penalized.
  (e) 30%: did you answer the questions in the oral exam that demonstrates your knowledge of this project? If I cannot get a good sense that you wrote the paper, then you will get penalized. Using AI to write your paper for you will harm you the most here.
- I will send each of a you a personal link to your Google document that you must type your paper in, from start to finish. You cannot copy and paste this from another source.
- You are welcome to use AI as a tool to help refine your writing or complete your literature review; however, you cannot use it to write your paper for you. Items (c), (d), and (e) of the grading policy is designed to reward those who submit their own work.
- No code in the main text. No file name in the main text. No URL in the main text. (If you refer to a website, show its URL in the Reference section. You can

include URL in a footnote.) Do not use a bulleted list or a numbered list in the main text.

- No coauthoring. You cannot directly use any part of a draft you have already submitted for another course.
- Your final paper has at least the following sections: Title, Abstract, Introduction, Data, Results, Conclusion, References, and Appendix. You can have more sections if needed. Place tables and figures in the Appendix. (*See sample template.*)
- Double-spaced font size 12 with 1 inch margins. Pages must be numbered. The final paper should not exceed 15 pages (including figures/tables; references do not count towards the page limit). If it exceeds 15 pages, your grade may based on the first 15 pages.
- A teaching assistant or I will not read your paper before the due time, but we are happy to talk about your paper if you come to the office hours. If you want someone to read your paper, ask your classmate. Do not send your code or any website link to us. We are happy to talk about your paper if you come to the office hours.

3. **Bonus Quizzes:** there will be 5 random, unannounced in-class extra credit quizzes

- These are extra credit points (half a percentage point for each quiz). One of the five will be dropped, so you have an opportunity to earn up to 2 percentage points extra for your final grade.
- There will be no makeup for any quizzes. There are no exceptions.
- These will be graded for completeness and will be discussed after you submit your quiz.

Cheating: https://ossja.ucdavis.edu/code-academic-conduct