ECN 102: Analysis of Economics Data

Summer Session 1 2026

Course logistics

Instructor: Dr. Remy Beauregard
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Lectures: Monday, Tuesday, Wednesday · 12:10-1:50 PM · TLC 2218
Office hours: Wednesday · 2:00-4:00 PM · SSH 136
Course email: beauregard.teaching@gmail.com
Sections: Thursday · A01 10:00-11:40 AM · A02 12:10-1:50 PM · Hutchison 93
Teaching assistant: Mitali Mathur
TA office hours: Thursday · 9:15-10:00 AM Hutchison 93 · 3:00-4:15 PM SSH 136

Course description

Analysis of economic data to investigate key relationships emphasized in introductory micro and macro economics. Obtaining, transforming, displaying data; statistical analysis of economic data; basic univariate and multivariate regression analysis.

Course goals

This course aims to provide both a theoretical and applied understanding of how variables and the relationships between variables are visualized and analyzed in Economics. We will use standard statistical software *Stata* to read, clean, visualize, and analyze data. The course serves as a bridge between introductory statistics courses and more advanced courses in Econometrics (e.g. ECN 140, 141, 142). Students should expect to participate in lectures through knowledge check exercises and attend sections to gain familiarity with Stata.

Course materials

The required textbook for this course is *Analysis of Economics Data: An Introduction to Econometrics* by A. Colin Cameron, available as a physical copy through Equitable Access Bookshelf. The tentative schedule of topics and weekly readings are listed below; it is your responsibility to keep up with reading for the course. You are *not* responsible for textbook material not covered in lectures. Lecture recordings will be posted, but your attendance in lecture is still critical to ask clarifying questions. Lecture slides will be posted on Canvas before each lecture, but these are not a substitute for attending lecture and taking your own notes. All assignments and answer keys will be posted on Canvas; it is your responsibility to check Canvas regularly for updates.

Course prerequisites

ECN 1A–B, Statistics 13 or 32, Math 16A–B; or Consent of Instructor.

Course registration

I cannot offer PTA codes for this course; please contact the registrar or EHE advising for help with enrollment. If you are on the waitlist, please continue to attend lectures and monitor your email for updates.

Course software

The main statistical software for this course is Stata. Discussion sections will be held in Hutchison 93, a basement computer lab equipped with Stata. For completing homework, Stata can be accessed remotely 24/7 through the UC Davis Digital Lab from all personal and university computers. Another option is purchasing a Stata license for your personal computer, but you should not feel expected to do so. Licenses are available on the Stata website; you will not need more than a *Stata BE 6-month Student Membership* ($48) for this class. Visual Studio Code (VS Code), a free and open-source IDE, will be used for Stata instruction during discussion sections.

Generative and agentic AI tools (e.g. ChatGPT, Claude, Gemini) are now quite competent at creating and editing code in programs such as Stata. While I allow and even encourage the use of such tools for synthesis and practice, these should serve as a *complement* to your own learning rather than a *substitute* for it. These tools frequently make deceptively convincing mistakes, making it your responsibility to verify any output produced is actually correct; these tools will also not be available during our in-person Stata quiz or other exams.

Assignments and grading

Your overall grade in this course (before any curve is applied) is calculated as a weighted sum of the assignments below. No other extra credit assignments are eligible for credit in this course.

- **Knowledge checks (10% total):** Each chapter slide deck will end with a review exercise called a *knowledge check*. These will be completed as a class during lecture and must be uploaded to Canvas by 11:59pm the day they are assigned for credit. Late submissions will not be accepted. Knowledge checks will be graded on completion and serve as good practice questions for exams. I will automatically drop up to two missing knowledge checks for the course.
- **Homework (10% total):** We will have four homework assignments to map concepts from lecture to actual data and applied problems. Problems requiring Stata will be demonstrated in discussion sections. Homework must be submitted as a single pdf and include all Stata output and code. All homework submissions will be due Sundays at 11:59pm through Canvas. Late homework will not be accepted. Homework will be graded on completion, with full credit given for submissions that *reasonably attempt* all questions. No homework will be given during midterm week. If you must request an extension on a homework submission, please contact the instructor *before the deadline*.
- **Stata quiz (20%):** We will have a quiz Week 5 during discussion sections (7/23) on data visualization and analysis using Stata. You can expect questions similar to previous homework assignments. The quiz will be closed-note, but you will have access to all posted homework answer keys. The quiz must be taken in person on Hutchison lab computers, except through the Student Disability Center (SDC) or with instructor permission. There is no makeup for the Stata quiz; a missed quiz receives a zero.
- **Midterm exam (25%) and final exam (35%):** Our midterm will take place July 13th in class. Our final exam will take place July 29th in class. It is your responsibility to *arrive on time* on these days. No makeup time will be given on exams. Both exams will be cumulative and closed-book. Formula sheets will be provided for both exams. If you will *need* to miss the midterm, you must notify me at least one week before the exam with a valid reason for your absence. If I accept your petition to miss the midterm, the weight of the midterm in your course grade will be added to your final exam (60% total). Missing the final exam will always result in either failure of the course or an incomplete ("I") grade with valid justification.

Practice materials

Practice exams for both the midterm and final are posted on Canvas. All sample exams reflect the format and difficulty of the actual exam. The formula sheets posted on Canvas are identical to those distributed on exam day. I also include selected practice questions from the textbook that specifically cover class material.

Midterm (7/13):

- Sample midterm — Summer 2025, with answer key
- Sample midterm — Spring 2025, with answer key
- Sample midterm — Fall 2024, with answer key
- Chapters 1-7 textbook questions, with answers

Final exam (7/29):

- Sample final — Summer 2025, with answer key
- Sample final — Spring 2025, with answer key
- Sample final — Fall 2024, with answer key
- Chapters 1-7; 9-12; 14-15 textbook questions, with answers

Regrading policy

Your exam pdf and the grading rubric for each question will be available on Gradescope with all points earned/lost. If you feel you were graded incorrectly on any question, you will have five days from when exam scores are released to submit a regrade request on Gradescope. Regrade requests must include valid justification for any points back. No regrade requests can be made after the window elapses. Regraded exam questions are considered holistically.

Final grades

There is no hard limit on the distribution of grades in this course, but I expect the class average to fall between 80–85%. Prior to all assignments being graded, however, I cannot provide precise intuition as to the letter grade associated with any percentage grade. Instead, I encourage all students to compute their z-score following exams as a measure of relative performance. I will provide the class mean and standard deviation for each exam after scores are released to help you compute your z-score.

Student accommodations

If you have any form of disability, difficulty understanding English, or other extenuating circumstances you feel will prevent you from doing your best in this course, please meet with me during the first week of class to discuss appropriate arrangements. All course materials are compliant with WCAG 2.1 Level AA accessibility standards, in accordance with UC policy. *Students taking the Stata quiz through the SDC will need their own access to Stata during the quiz, either remotely through the free UC Davis Digital Lab or via a personal Stata (BE) license.*

Class culture

My class is built on a foundation of mutual respect and professional courtesy. All individuals should feel welcome, regardless of their age, sex, gender identity, race, ethnicity, national origin, immigration status, sexual orientation, religious beliefs, socioeconomic status, or disability status. Additional university resources can be found on the UC Davis Inclusive Excellence page or through Student Health and Counseling Services (SHCS). If you feel you have experienced any form of discrimination in my class, please report the matter to me or use the link above.

Academic dishonesty

I have a zero tolerance policy for academic dishonesty. This includes but is not limited to: cheating on exams, submitting work from another student as your own, submitting work from an external source without proper citation, use of personal electronic devices or talking between students during exams, and submitting homework that is entirely or primarily generated by AI (e.g. ChatGPT); using AI to verify or augment your own work is permitted, but the substance of your submission must be your own. If you are found to have engaged in any form of academic misconduct on any assignment or exam, you will receive a *zero* for that assignment or exam. I also reserve the right to submit cases of suspected misconduct to Student Conduct and Integrity (formerly OSSJA) for review. Please see the UC Davis Code of Academic Conduct for details.

Course schedule

Broadly, this course is broken down into four main components:

(a) Introduction: what we can do with data
(b) Univariate analysis: analysis of a single variable (ch. 1–4)
(c) Bivariate analysis: the relationship between two variables (ch. 5–9)
(d) Multivariate analysis: the relationship(s) between several variables (ch. 10–15)

A tentative schedule of topics and associated textbook chapters for each week are below:

Week 1: Monday June 22nd

Lecture: descriptive statistics; data visualization — *chapters 1+2*
Section: hw 1 examples
Hw 1 due June 28th at 11:59pm

Week 2: Monday June 29th

Lecture: the sample mean; univariate inference; bivariate data — *chapters 3+4+5*
Section: hw 2 examples
Hw 2 due July 5th at 11:59pm

Week 3: Monday July 6th

Lecture: the least-squares estimator; bivariate inference; bivariate practice — *chapters 6+7+8*
Section: hw 3 examples
Hw 3 due July 12th at 11:59pm

Week 4: Monday July 13th

Midterm exam July 13th ch. 1–7
Class canceled July 14th
Lecture: data transformations for bivariate regressions — *chapter 9*
Section: midterm recap

Week 5: Monday July 20th

Lecture: multiple regression; multivariate inference — *chapters 10+11+12*
Section: **Stata quiz**
Hw 4 due July 26th at 11:59pm

Week 6: Monday July 27th

Lecture: indicator variables; data transformations for multivariate regressions — *chapters 14+15*
Final exam July 29th ch. 1–7; 9–12; 14–15