
ECON 41: PROBABILITY AND STATISTICS FOR ECONOMISTS

INSTRUCTOR: MADISON SIEVERS

UCLA, SUMMER SESSION C, 2026

EMAIL:	<i>msievers@g.ucla.edu (please include "Econ 41" in the subject line)</i>
LECTURES:	<i>Monday & Wednesday, 10:45am–12:50pm, Kaplan 135</i>
ZOOM:	<i>https://ucla.zoom.us/j/95401639785?pwd=1JQPuZwZpbU03IVI5TJrY9fTXjKZWJ.1 Meeting ID: 954 0163 9785 Passcode: 642747</i>
OFFICE HOURS:	<i>Wednesday, 2–4pm, Alper Room (Bunche 2265) & Zoom (same link)</i>

COURSE DESCRIPTION

This course is an introduction to the theory and practice of statistics with an emphasis on its use in economics. Students will learn fundamental statistical concepts including random variables, probability distributions, estimation, confidence intervals, and hypothesis testing. By the end of the course, students will be prepared to apply these concepts in more advanced economics courses.

PREREQUISITES

Mathematics 31A/B or equivalent. Students should be familiar with basic differentiation, integration, and graph interpretation.

COURSE FORMAT AND MATERIALS

Lectures will be taught in person and streamed on Zoom. Recordings will be posted. Lecture slides will be posted after lectures.

Textbook: *Probability and Statistical Inference*, Ninth Edition by Elliot A. Tanis, Robert V. Hogg, and Dale L. Zimmerman. We will primarily go through chapters 1-8. Lecture slides will be provided.

GRADE EVALUATION

Your final grade is based on a weighted average of homework, midterm, and final exam. You will be assigned the grade using the option that is most favorable to you:

- **Option 1:** Homework 10%, Midterm 30%, Final 60%
- **Option 2:** Homework 10%, Midterm 45%, Final 45%

Letter grades are assigned on a curve. Approximately 25% of students will receive A's, 35% will receive B's, and 20% will receive C's

HOMework ASSIGNMENTS

There are 4 homework assignments graded on completion. Solutions will be posted after the due date. Students are responsible for verifying correctness. Late submissions receive half credit. Submit as PDF (typed or scanned) using the course website.

- **Homework 1:** due Aug 9th at 11:59 pm
- **Homework 2:** due Aug 16th at 11:59 pm
- **Homework 3:** due Aug 30th at 11:59 pm
- **Homework 4:** due Sept 6th at 11:59 pm

EXAMS

- **Midterm:** Wednesday, August 19th, during class. Multiple choice, in-person required. Covers Weeks 1–3.
- **Final:** Wednesday, September 9th, during class. Multiple choice, in-person required. Cumulative.

Allowed: Simple calculator (e.g., Canon LS-100TS). No calculators with graphing or programming capabilities.

TENTATIVE COURSE OUTLINE

	<i>Planned Content</i>	<i>Assignment</i>
<i>Week 1</i>	Basic concepts, enumeration, conditional probability, independence.	HW1 Due Aug 9 th
<i>Week 2</i>	Discrete random variables, distributions, expectation, special distributions.	HW2 Due Aug 16 th
<i>Week 3</i>	Continuous random variables and distributions	Midterm: Aug 19 th
<i>Week 4</i>	Special continuous distributions, multivariate distributions	HW3 Due Aug 30 th
<i>Week 5</i>	Inequalities, sample moments, Law of Large Numbers, Central Limit Theorem.	HW4 Due Sept 6 th
<i>Week 6</i>	Confidence intervals, hypothesis testing	Final: Sept 9

COURSE POLICIES

AI USE POLICY

You are permitted to use ChatGPT and other AI tools to assist with homework assignments, but you should be careful when doing so. You should always make sure you understand whatever answers it is giving you and verify whether they are correct or not. You will not be allowed to use any online resources during the exams.

ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES

Students needing academic accommodations based on a disability should contact the Center for Accessible Education (CAE) at (310) 825-1501 or in person at Murphy Hall A255. To ensure accommodations, students need to contact the CAE within the first two weeks of the term. Students requiring additional accommodations for exams will schedule and take exams through the CAE facility.

ACADEMIC INTEGRITY

Students are expected to behave in accordance with the Student Code of Conduct: (<https://www.deanofstudents.ucla.edu/studentconductcode>). If the instructor suspects academic dishonesty among students, there is a requirement to report this suspected incident to the Office of Student Conduct.

POLICY ON MISSED EXAMS

Exams must be taken at the scheduled time. Department policy does not allow makeup midterms without documented justification. With verifiable documentation (e.g., doctors note), additional weight will be placed on the final exam. Students who miss the final exam due to emergency may request a makeup. Missing all exams results in an automatic F grade. See <https://economics.ucla.edu/undergraduate/common-syllabus/>

ADDITIONAL RESOURCES

Ashe Student Health and Wellness Center: <http://www.studenthealth.ucla.edu>.

Bruin Resource Center: (310) 825-3945; <https://www.brc.ucla.edu/>

Bruin Shelter: <http://www.bruinshelter.org/>

Campus Assault Resources & Education (CARE): (310) 206-2465;
<https://www.careprogram.ucla.edu/>

Campus and Student Resilience: <https://www.resilience.ucla.edu/>

Counseling and Psychological Services (CAPS): <https://www.counseling.ucla.edu/>. Can be reached 24/7 at (310) 825-0768.

Community Programs Office (CPO): (310) 825-5969; <http://uclacommunityprograms.org/>

The CPO Food Shelter: <http://www.cpo.ucla.edu/cpo/foodcloset/>

Dashew Center for International Students & Scholars: (310) 825-1681; <https://www.internationalcenter.ucla.edu/>

Dean of Students Office: 310-825-3894; <https://www.deanofstudents.ucla.edu/>

Equity, Diversity and Inclusion: <https://equity.ucla.edu/>

Healthy Campus Initiative (HCI): <https://healthy.ucla.edu/>

LGBT Campus Resource Center (310) 206-3628; <https://www.lgbt.ucla.edu/>

UCLA Police Department: (310) 825-1491; <https://police.ucla.edu/>

UCLA Student Legal Services (310)-825-9894; <https://www.studentlegal.ucla.edu/>

Title IX Resources:

UCLA prohibits gender discrimination, including sexual harassment, domestic and dating violence, sexual assault, and stalking. If you have experienced sexual harassment or sexual violence, there are a variety of resources to assist you. You can receive confidential support and advocacy at the CARE Advocacy Office for Sexual and Gender Based Violence, 1st Floor Wooden Center West, CAREadvocate@careprogram.ucla.edu, (310) 206-2465.

Counseling and Psychological Services (CAPS) also provides confidential counseling to all students and can be reached 24/7 at (310) 825-0768.

Faculty and TAs are required under the UC Policy on Sexual Violence and Sexual Harassment to inform the Title IX Coordinator should they become aware that you or any other student has experienced sexual violence or sexual harassment.

You can also report sexual violence or sexual harassment directly to the University's Title IX Coordinator, 2241 Murphy Hall, titleix@conet.ucla.edu, (310) 206-3417. Reports to law enforcement can be made to UCPD at (310) 825-1491. These offices may be required to pursue an official investigation.