

Prof. Xiaodong Liu

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Meeting Room: GUGG 205

Meeting Times: MWF 11:15AM - 12:05PM

Office Hours: MWF 1:15PM - 2:15PM.

Class website: All course materials will be posted on Canvas.

Course Description:

The purpose of econometrics is to develop and apply statistical methods for estimating economic relationships, testing economic theories, and evaluating economic policies. This course provides an introduction to the theory and application of modern econometrics. We begin by reviewing and extending the statistical concepts covered in Econ 3818. Students are then introduced to the fundamentals of regression analysis, beginning with the simple regression model and progressing to more advanced topics. Throughout the course, we will examine key issues related to estimation, statistical inference, and model specification, with an emphasis on applying econometric methods to economic data and interpreting empirical results.

Text:

Introductory Econometrics: A Modern Approach, by Jeffery M. Wooldridge.

The textbook is an important resource for this course, as I will follow it closely. Please keep up with the assigned readings. They are essential to your success in this class.

Prerequisites:

Economics 3818, Introduction to Statistics with Computer Applications, or its equivalent.

Software:

Microsoft Excel will be used for data analysis throughout the course.

Assessment:

There will be two midterm exams, a final exam, and periodic problem sets.

1. Problem sets (30 pts)
2. Midterm exams (20 pts each)
3. Final exam (30 pts)

There will be no make-up exams. If a student misses a midterm due to an excused absence, the weight of the missed midterm will be shifted to the final exam.

Tentative Course Outline (Text chapters are in parentheses):

1. Review of Mathematics and Statistics (Appendices B and C)
2. The Simple Regression Model (Ch. 2)
3. Multiple Regression Analysis: Estimation (Ch. 3)

Midterm 1

4. Multiple Regression Analysis: Inference (Ch. 4)
5. Multiple Regression Analysis: Large Sample Properties of OLS (Ch. 5)
6. Multiple Regression Analysis: Further Issues (Ch. 6)

Midterm 2

7. Multiple Regression Analysis with Qualitative Information: Binary Variables (Ch. 7)
8. Heteroskedasticity (Ch. 8)
9. More on Specification and Data Problems (Ch. 9)

Final**University Policies:****Honor Code**

All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the [Honor Code](#). Violations of the Honor Code may include but are not limited to: plagiarism (including use of paper writing services or technology [such as essay bots]), cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, clicker fraud, submitting the same or similar work in more than one course without permission from all course instructors involved, and aiding academic dishonesty. Understanding the course's syllabus is a vital part of adhering to the Honor Code.

All incidents of academic misconduct will be reported to Student Conduct & Conflict Resolution: StudentConduct@colorado.edu. Students found responsible for violating the Honor Code will be assigned resolution outcomes from Student Conduct & Conflict Resolution and will be subject to academic sanctions from the faculty member. Visit [Honor Code](#) for more information on the academic integrity policy.

Accommodation for Disabilities, Temporary Medical Conditions, and Medical Isolation

If you qualify for accommodations because of a disability, please submit your accommodation letter from Disability Services to your faculty member in a timely manner so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities in the academic environment. Information on requesting accommodations is located on the [Disability Services website](#). Contact Disability Services at 303-492-8671 or DSinfo@colorado.edu for further assistance. If you have a temporary medical condition, see [Temporary Medical Conditions](#) on the Disability Services website.

Accommodation for Religious Obligations

Campus policy requires faculty to provide reasonable accommodations for students who, because of religious obligations, have conflicts with scheduled exams, assignments, or required attendance. Please communicate the need for a religious accommodation in a timely manner. See the [campus policy regarding religious observances](#) for full details.

Preferred Student Names and Pronouns

CU Boulder recognizes that students' legal information does not always align with how they identify. If you wish to have your preferred name (rather than your legal name) and/or your preferred pronouns appear on your instructors' class rosters and in Canvas, visit the [Registrar's website](#) for instructions on how to change your personal information in university systems.

Classroom Behavior

Students and faculty are responsible for maintaining an appropriate learning environment in all instructional settings, whether in person, remote, or online. Failure to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, marital status, political affiliation, or political philosophy.

Additional classroom behavior information

- [Student Classroom and Course-Related Behavior Policy](#).
- [Student Code of Conduct](#).
- [Office of Institutional Equity and Compliance](#).
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Sexual Misconduct, Discrimination, Harassment and/or Related Retaliation

CU Boulder is committed to fostering an inclusive and welcoming learning, working, and living environment. University policy prohibits [protected-class](#) discrimination and harassment, sexual misconduct (harassment, exploitation, and assault), intimate partner abuse (dating or domestic violence), stalking, and related retaliation by or against members of our community on- and off-campus. The Office of Institutional Equity and Compliance (OIEC) addresses these concerns, and individuals who have been subjected to misconduct can contact OIEC at 303-492-2127 or email OIEC@colorado.edu. Information about university policies, [reporting options](#), and [OIEC support resources](#) including confidential services can be found on the [OIEC website](#).

Please know that faculty and graduate instructors are required to inform OIEC when they are made aware of incidents related to these concerns regardless of when or where something occurred. This is to ensure the person impacted receives outreach from OIEC about resolution options and support resources. To learn more about reporting and support a variety of concerns, visit the [Don't Ignore It page](#).

Mental Health and Wellness

The University of Colorado Boulder is committed to the well-being of all students. If you are struggling with personal stressors, mental health or substance use concerns that are impacting academic or daily life, please contact [Counseling and Psychiatric Services \(CAPS\)](#), located in C4C, or call (303) 492-2277, 24/7.

Free and unlimited telehealth is also available through [AcademicLiveCare](#).

The [AcademicLiveCare](#) site also provides information about additional wellness services on campus that are available to students.