

Prof. Xiaodong Liu

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Meeting Room: GUGG 205  
Meeting Times: MWF 11:15 - 12:05  
Office Hours: MW 10:30 – 11:15

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

**Course Description:**

The purpose of Econometrics is to develop statistical methods for estimating economic relationships, testing economic theories, and evaluating economic policies. This course provides an introduction to the theory and applications of modern econometrics. This course begins by reviewing and extending the statistical material covered in Econ 3818. Following this, students are guided through the basics of regression analysis starting with the simple regression model. Issues in relation to estimation, inference, and model specification will be explored.

**Text:**

*Introductory Econometrics: A Modern Approach*, (7<sup>th</sup> edition) by Jeffery M. Wooldridge.

The text is important, as I will follow it closely. Keep up with the readings. It is essential for success in this class.

**Prerequisites:**

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

**Software:**

We will use Microsoft Excel for data analysis in this course.

**Assessment:**

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

1. Problem sets (20 pts)
2. Midterm exams (25 pts each)
3. Final exam (30 pts)

There will be no makeup exams. A student who misses a midterm due to an excused absence will have the additional weight shifted to the final.

**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:**

## 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, political affiliation, or political philosophy.

For more information, see the [classroom behavior policy](#), the [Student Code of Conduct](#), and the [Office of Institutional Equity and Compliance](#).

## 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](mailto:dsinfo@colorado.edu) for further assistance. If you have a temporary medical condition, see [Temporary Medical Conditions](#) on the Disability Services website.

If you have a temporary medical condition or required medical isolation for which you require accommodation, see [Temporary Medical Conditions](#) on the Disability Services website.

## Preferred Student Names and Pronouns

CU Boulder recognizes that students' legal information doesn't always align with how they identify. Students may update their preferred names and pronouns via the student portal; those preferred names and pronouns are listed on instructors' class rosters. In the absence of such updates, the name that appears on the class roster is the student's legal name.

## 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.

All incidents of academic misconduct will be reported to Student Conduct & Conflict Resolution: [honor@colorado.edu](mailto:honor@colorado.edu), 303-492-5550. Students found responsible for violating the [Honor Code](#) will be assigned resolution outcomes from the Student Conduct & Conflict Resolution as well as be subject to academic sanctions from the faculty member. Visit [Honor Code](#) for more information on the academic integrity policy.

## 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 violence (dating or domestic violence), stalking, and related retaliation by or against members of our community on- and off-campus. These behaviors harm individuals and our community. The Office of Institutional Equity and Compliance (OIEC) addresses these concerns, and individuals who believe they have been subjected to misconduct can contact OIEC at 303-492-2127 or email [cureport@colorado.edu](mailto:cureport@colorado.edu). Information about university policies, [reporting options](#), and support resources can be found on the [OIEC website](#).

Please know that faculty and graduate instructors have a responsibility to inform OIEC when they are made aware of incidents related to these policies regardless of when or where something occurred. This is to ensure that individuals impacted receive an

outreach from OIEC about their options for addressing a concern and the support resources available. To learn more about reporting and support resources for a variety of issues, visit [Don't Ignore It](#).

## Religious Holidays

Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. See the [campus policy regarding religious observances](#) for full details.

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