

Xiaodong Liu, Assistant Professor

Office: Economics 10
Voice: 303-492-7414
Email: xiaodong.liu@colorado.edu

Location: Economics 119
Meeting Times: MWF 10:00 – 10:50 am
Office Hours: MWF 1:30 – 2:30 pm

Class website: All course materials will be posted on WEBCT/CU Learn.

Course Description:

This course provides an introduction to the theory and methods of modern econometrics. Econometrics is the quantitative branch of economics. Econometrics studies theoretical and practical aspects of applying statistical methods to economic data for the purpose of testing economic theories and forecasting the future path of economic variables.

This course begins by reviewing and extending the statistical material covered in Econ 3818. Following this, students are guided through the principals of regression analysis starting with the simple regression model. Issues in relation to estimation, inference and specification will be explored. The latter part of the course introduces students to limited dependent variable models and time series analysis.

The theoretical concepts and methods will be reinforced through practical projects, which also provide an opportunity for students to develop investigative skills.

Text:

Introductory Econometrics: A Modern Approach, (3rd edition) by Jeffery M. Wooldridge.

The text in the 2nd edition is identical to the 3rd edition. But some practice problems are missing in the 2nd edition. 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:

The software for the course is EViews and it is available in the Economics Computer Lab. Students who want to purchase their own version can do so at <http://www.eviews.com/eviews4/eviews41s/evstud41.html>. The Student Version EViews 4.1 costs \$39.95.

Assessment:

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

1. Problem sets (30%)
2. Midterm examinations (20% each)
3. Final Examination (30%)

There will be no make up 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. Introduction (Ch. 1)
2. Review of Mathematics and Statistics (Appendices A, B and C)
3. The Simple Regression Model (Ch. 2)
4. Multiple Regression Analysis: Estimation (Ch. 3)
5. Multiple Regression Analysis: Inference (Ch. 4)

Midterm 1

6. Multiple Regression Analysis: OLS Asymptotics (Ch. 5)
7. Multiple Regression Analysis: Further Issues (Ch. 6)
8. Multiple Regression Analysis with Qualitative Information: Binary Variables (Ch. 7)
9. Binary Dependent Variables (Ch. 17)

Midterm 2

10. Heteroskedasticity (Ch. 8)
11. More on Specification and Data Problems (Ch. 9)
12. Basic Regression Analysis with Time Series Data (Ch. 10)
13. Serial Correlation and Heteroskedasticity in Time Series Regressions (Ch. 12)

Final

University Policies:

University policies regarding classroom behavior are available at

<http://www.colorado.edu/policies/classbehavior.html> and at

http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student_code

Information regarding the University Honor Code is available at

<http://www.colorado.edu/policies/honor.html> and at

<http://www.colorado.edu/academics/honorcode>. The Honor Code Council can be

contacted by email at honor@colorado.edu or by telephone at 303-725-2273.

University policies regarding disabilities are available at

<http://www.colorado.edu/disabilityservices>. Disability Services can be contacted by

telephone at 303-492-8671, or in person at Willard 322.

University policies regarding religious practice are available at

http://www.colorado.edu/policies/fac_relig.html.

University policies regarding Sexual Harassment and Amorous Relationships are

available at <http://www.colorado.edu/odh/>. The Office of Discrimination and

Harassment can be reached by telephone at 303-492-2127. The Office of Judicial

Affairs can be reached at 303-492-5550.