Syllabus
ECON 2311: Empirical Methods in Economics I
SPRING 2018

Instructor: Jungbin Hwang, Email : jungbin.hwang@uconn.edu
Time and Location: Tue/Thur: 9:30am∼10:25am / UTEB 175
Office Hours: Tue : 2:00pm∼3:00pm/ Oak 333
Lab/Teaching Assistant: Xizi Li (xizi.li@uconn.edu)

- Office/Lab/Review Hours : Mon/Wed/Fri: 1:25pm∼2:15pm / Oak Hall 308

Description of the Course

The course aims to prepare students for practical empirical research in an academic or business setting. As a main goal, students learn and practice the following three basic concepts in econometrics:

- *Quantifying uncertainty* with confidence intervals.

- Using regression *to infer and identify causal relationships.*

- Using regression for *prediction.*

Students will also practice and build competency in STATA which is a standard software package to perform the empirical analysis in economics.

Textbook

- Introductory Statistics for Business and Economics, 4th Edition: T.H. Wonnacott and R.J. Wonnacott (Optional)

    – This book will help you review of basic statistics knowledge/techinque.

- **Introduction to Econometrics, 3rd Edition : J. Stock and M. Watson (Recommended Textbook)**

Course Web Page

A course webpage is available at **HuskyCT- https://lms.uconn.edu/**. It will include information relevant to the course, such as announcements, homework assignments, information on Stata tutorials, practice problem sets, solutions, updated syllabus, schedule and more. **You should check this page regularly.**

Required Software

STATA (www.stata.com) is a general-purpose statistical software package. Students are not required to the software as you can access to these tools in the computer lab as well as our classroom in Oak Hall 308, and in other computer labs on. Check http://software.uconn.edu/stata/ for on-campus access information.

Schedules of Review and Lab sections

Lab #	Days/Time	Classroom	Instructor
001L (12188)	Mo 1:25PM - 2:15PM		
002L (12189)	We 1:25PM - 2:15PM	Oak 308	Xizi Li
003L (12190)	Fr 1:25PM - 2:15PM		

*There will be no review/lab classes in the first week of Jan 15∼19th.

Homework

There will be **four homework assignments** in this course. Homework assignments are STATA exercises and will serve as a way to learn and practice that software. Complete all your homework assignments on your own. Remember, homework is assigned to assist you in learning the software and at the same time it is a good check of your understanding of the econometrics concepts taught in class.

Grading

20% Homework Assignments / 35% Midterm Exam / 45% Final Exam.

There will be (random) 5 attendance surveys that gives you extra points up to 3 percent of your total scores.

The overall course grade, computed using the weights specified above, will be curved. In general, the class average corresponds to the lowest B.

Exams

The midterm examination is scheduled to **Tuesday, March 6th at 9:30am~10:25am.** The specific location and will be announced later. The final exam will take place on the date scheduled in the University Calendar for final exams, closed books and notes.The materials for final exams will be cumulative. In general, the dates for the exams are not negotiable and there are no make up exams. If you miss a final for a justifiable and verifiable medical/legal reason, your midterm grade will be your grade on the final. Otherwise you will receive a zero, no exceptions. Check **http://catalog.uconn.edu/academic-regulations/grade-information/#final-exam** for further detailed policy in UCONN.

(Tentative) Outline of the Course

Part I: Introduction and Review of Basic Statistics for Economics (Stock and Watson's Chapters 1-3)

- Covariance and Correlation
- Correlation vs. causality; Policy analysis vs. prediction; Experimental vs. nonexperimental data
- Exact/finite sample distribution vs. large sample distribution
- Introduction to STATA (input data, create log and do files, run regressions, graph, etc.)

- Homework I

Part II: Linear Regression with One Regressor (Stock and Watson's Chapters 4 and 5)

- Least Square principle
- Sampling distribution of OLS estimator (data generating process)
- Confidence interval and hypothesis testing: small sample approach and large sample approach
- Use regression with only intercept to infer about the mean
- Use dummy variable regression to compare means from different subpopulations.
- Practice a simple linear regression with STATA

- Homework II

Midterm Exam on March 6th (The) at 9:30am~10:25am

Part III: Linear Regression with Multiple Regressors (Stock and Watson's Chapters 6 and 7)

- Sampling distribution of the OLS estimator
- Confidence interval and hypothesis testing for a single coefficient
- Confidence set and joint hypothesis testing for more than one coefficient
- Practice multiple linear regression analysis with STATA

- Homework III

Part IV: Topics in Multiple Regression (Stock and Watson's Chapters 8 and 9)

- Dummy variable regressions
- Modeling nonlinear functions
- Sources of OLS bias: measurement error, omitted variable, simultaneity and sample selection

Final Exam (TBA)

Academic Integrity

Academic honesty is fundamental to the activities and principles of a university. All members of the academic community must be confident that each person's work has been responsibly and honorably acquired, developed, and presented. Any effort to gain an advantage not given to all students is dishonest whether or not the effort is successful. The academic community regards academic dishonesty as an extremely serious matter, with serious consequences that range from probation to expulsion. When in doubt about plagiarism, paraphrasing, quoting, or collaboration, consult the course instructor.

ADA Statement

If you have special needs as addressed by the Americans with Disabilities Act (ADA) and need assistance, please notify the Department of Human Resources Americans with Disabilities Act (ADA) Accommodations Case Manager is charged with processing and facilitating requests for employee ADA accommodations. If you believe you may need an accommodation, or if you are a supervisor or manager who has been presented with a request for an accommodation, please contact the ADA Case Manager, Ryan Bangham, and/or visit our page on Employee Accommodations. See the guide to HR's Reasonable Accommodations Process. Students who require an accommodation in the academic setting should contact the Center for Students with Disabilities. Please feel free to contact the ADA Case Manager at (860) 486-2020 or via e-mail at csd@uconn.eduu for further assistance.

For other policy Against Discrimination, Harassment and Related Interpersonal Violence and the Statement on Absences from Class Due to Religious Observances and Extra-Curricular Activities: http://provost.uconn.edu/syllabi-references/