



Hankuk University of Foreign Studies

2021 Summer Session

ECON 400 Econometrics

Course Outline

Term: July 12-August 13,2021

Class Hours: 10:00-11:50 (Monday through Friday)

Course Code: ECON 400

Instructor: Byung-Joo Lee, Visiting Professor of Economics

Home Institution: University of Notre Dame, Notre Dame, IN 46556 U.S.A.

Office Hours: By Appointment

Email: bjleend@gmail.com

Credit: 4

Class Hours: This course will have 72 class hours, including 40 lecture hours, 10 lecturer office hours, 10-hour TA discussion sessions, 2-hour review sessions, 10-hour extra classes.

Course Description:

The purpose of this course is to help students learn how to use statistical and econometric methods in empirical economic applications. This course is oriented towards the practical applications of economic theory with econometric methods rather than the theoretical development of these subjects. This course emphasizes to analyze economic problems using statistical and econometric methods.

This will enhance their job market skills and/or provide better preparation for the graduate school to become professional economists.



This course is comprised of 4 sessions of 120 minutes per week for 5 weeks. This course is very intensive and covers course content equivalent to one regular semester class in U.S. colleges.

Textbook:

- Introductory Econometrics: A Modern Approach by Jeffrey M. Wooldridge, 7th Edition, 2019, Cengage Learning

Prerequisite:

- Statistics for Economics, Principles of Economics, or equivalent

Attendance:

Students should attend class regularly, arrive on time and not leave early. While you are in class, show the proper respect to your instructor and to your classmates. When you must miss a class, it is your responsibility to get the class material from me or your classmates. Class attendance will be checked. You will earn maximum 15 points for attendance for the final grade. Late arrival and excused absence will cost 0.5 point. Excessive absence may result in the course grade of "F".

Grading scale is as following with appropriate curve:

A: 86-100% B: 71-85% C: 51-70% D: 41-50% F: Below 40%

Grading:

There will be one midterm exam and one final exam, 40% each. Exams test basic econometric theory and empirical applications. Homework accounts for the remaining 20% for the course grade. There is 15 extra points for attendance.

Academic Honor Code:

The Code of Honor will be strictly applied. Honor Code pledges "I will not participate in or tolerate academic dishonesty." Students will not give or receive aid on exams. This includes, but is not limited to, viewing the exams of others, sharing answers with others, and using books or notes while taking the exam. You can collaborate to study your homework, but you have to submit your own completed homework to receive appropriate credit. Copying solutions from others, whether they are current or past, constitutes plagiarism.

Computer Program:



We will use Stata for our class. Stata is relatively inexpensive but comprehensive statistical and econometrics program, and very easy to learn. Stata is widely used in academic research area and becomes increasingly popular in business area too. Stata runs on both Windows and Mac OS.

You need to purchase and install Stata program in your computer. To avoid any possible problems, I strongly recommend you do this while you are in your U.S. school before you come to AUIA summer program. You CANNOT take this course without Stata.

- Go to www.stata.com → Purchase → Order Stata → select Country (United States) → select Students and New Purchase → select Stata product: Stata/IC 6 month license





Tentative Course Schedule

The course outline is tentative and I will modify accordingly depending on the pace of the class.

Week 1: Econometrics and OLS

Session 1: Chapter 1: The Nature of Econometrics and Economic Data

Session 2: Chapter 2: The Simple Regression Model

Session 3: Introduction to Stata

Session 4: TA Review Session

Week 2: Multiple Regression Analysis

Session 5: Chapter 3: Multiple Regression Analysis: Estimation

Session 6: Chapter 4: Multiple Regression Analysis: Inference

Session 7: Chapter 5: Multiple Regression Analysis: OLS Asymptotics

Session 8: TA Review Session

Week 3: Violation of OLS Regression Assumptions

Session 9: Midterm Exam

Session 10: Chapter 7: Multiple Regression Analysis with Qualitative Information

Session 11: Chapter 8: Heteroskedasticity

Session 12: TA Review Session

Week 4: Regression Analysis with Time Series Data

Session 13: Chapter 9: More on Specification and Data Problems

Session 14: Chapter 10: Basic Regression Analysis with Time Series Data

Session 15: Chapter 12: Serial Correlation and Heteroskedasticity in Time Series Regressions

Session 16: TA Review Session

Week 5: Panel Data Regression Analysis

Session 17: Chapter 12: Serial Correlation and Heteroskedasticity in Time Series Regressions

Session 18: Chapter 13: Panel Data Method: Pooling Cross Sections Across Time

Session 19: Final Exam