

Econometrics

University of Tsukuba
College of International Studies

2nd Trimester, 2004
Daiji Kawaguchi

Class: Tu Th 8:40 – 9:55 at 3K102
Office: 3K 314; Office Hour: Wed 10:00-12:00 or by appointment.
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This course is an introductory econometrics course that mainly covers linear regression models. Econometrics is a tool that identifies causal economic relationships between economic variables, but its application is not limited to economics. Econometrics is also widely used by political scientists, sociologists, or other social scientists. Those who are interested in the quantitative analysis in social sciences should take this course. I will attempt to introduce how the tools are applied to “real problems” to motivate your study. You need to be familiar with mathematics and statistics, as described in the course prerequisites. I will briefly teach how to use Stata, statistical software, in the computer lab. The way to distribute the data will be announced in the class.

Course Prerequisites

Prerequisites consist of Elementary Mathematics and Elementary Statistics. You should be comfortable with basic statistical inferences. Those who are not comfortable with statistics are urged to read Appendix in the textbook. If you do not have good grasp of statistical ideas, you cannot follow this class.

Required Text

Jeffery M. Wooldridge “Introductory Econometrics: A Modern Approach 2nd Edition”
I did not order this book at Maruzen. Please purchase this book through Internet bookstore such as Amazon. Amazon sells this book around 6800 yen.

Grading

Your final course grade is determined by several graded home works (counts 20 percent for the final grade), the midterm examination (counts 30 percent for the final grade) and the final examination (counts 50 percent for the final grade). You will usually be given one week to complete a problem set. Problem sets typically require you to analyze data using Stata. (Data sets will be provided in Stata format.) I will not accept any late submission after the deadline. Please submit your homework in the class.

The midterm examination will be given on October 7th (Thursday) in 3K102 (the usual classroom.) This examination covers material up to the date of the examination. The final examination will be comprehensive but more emphasis will be put on the materials covered after the midterm examination. This final examination will be given on November 25th (Thursday). The place and time for the final examination is same as the usual class.

If you cannot take the midterm examination for reasons such as sickness or family emergency, the final examination counts 80 percent for the final grade. Please provide the

document proving your situation. If you cannot take the final examination due to unavoidable reason, given that you provide documents proving your situation, I will arrange a make up examination. Arrangement should be made before the examination day except for real emergency.

Course Outline (Tentative and subject to change)

Review of Probability and Statistics (9/7, 9)

Wooldridge: Appendix A, B, C

Simple Regression (9/14, 16)

Wooldridge: Chapter 2

Computer Session (We will meet at the computer lab in the 2nd floor of K building) (9/21)

Multiple Regression: Estimation (9/28, 30, 10/5)

Wooldridge: Chapter 3

Midterm Examination (10/7)

No Class due to School Festival (10/12)

Multiple Regression: Inference (10/14, 19)

Wooldridge: Chapter 4

Multiple Regression: OLS Asymptotics (10/21)

Wooldridge: Chapter 5

Multiple Regression: Further Issues (10/26, 10/28)

Wooldridge: Chapter 6

Multiple Regression: Binary Variables (11/2)

Wooldridge: Chapter 7

Heteroskedasticity (11/4)

Wooldridge: Chapter 8

Instrumental Variable Regression (11/9, 11)

Wooldridge: Chapter 15

No Class (11/16)

Panel Estimation (11/18)

Wooldridge: Chapter 13,14

Final Examination (11/25)