Subject	Intermediate Econometrics (Special Lectures)II	Subject	Intermediate Econometrics (Special Lectures)II
Instructor	KO IAT MENG	Instructor	KO IAT MENG
Day・Period	Tue.2Period		
Eligible Participants	3・4		
Course Numbering	EAL-ECO365E		
Credit(s)	2Credits		
Course of Media Class			
Main Subjects			
Object and Summary of Class	This course is a one-semester introduction to econometrics. The course will cover fundamental knowledge of linear regression in economic data analysis. Necessary probability and statistic concepts will be taught and reviewed. Empirical applications, rather than theoretical proofs, will be emphasized. Empirical examples will be demonstrated in class. The R program will be taught and used throughout the course. Textbook Wooldridge, J. M. (2020). Introductory econometrics: A modern approach, 7th ed., Cengage. (E-Book available from the university library website)		
Goal of Study	The students are expected to have a deep understanding of modern econometric methods in economic data analysis. Also, the course is designed as a prerequisite for advanced econometrics courses. The students will be able to apply basic econometric tools in empirical research (cross-sectional data) after the course.		
Contents and Progress Schedule of the Class	1. Economic data structure (Wooldridge Chapter 1 and Appendix B & C) Basic probability & statistics for econometrics Conditional expectation (conditional mean) Causality & Ceteris Paribus 2. Linear regression model estimation (Wooldridge Chapter 2 & 3) Simple & multiple regression Gauss-Markov Assumptions Unbiasedness, Efficiency, BLUE		

3. Multiple regression inference (Wooldridge Chapter 4)
Classical linear model (CLM) Assumptions
t and F tests

4. Large sample regression model (Wooldridge Chapter 5) and Consistency (Wooldridge Appendix C-3)
Asymptotic normality
Large sample inference

5. Multicollinearity (Wooldridge Chapter 3, 3-4a) and Heteroskedasticity (Wooldridge Chapter 8)
Robust standard error & inference
Diagnostic tests for Heteroskedasticity
Weighted Least Square (WLS) estimator

6. Endogeneity (Wooldridge Chapter 15)
Instrumental variable & 2SLS
Testing for endogeneity & overidentification

7. Miscellaneous topics (Wooldridge Chapter 6)
Beta Coefficients
Functional forms
Goodness-of-fit & selection of regressors

8 Regression with qualitative information (Wooldridge Chapter 7)
Dummy regressors
Linear probability model

9 Model specification, measurement error, and sample issues (Wooldridge Chapter 9)

Not all topics in each chapter will be covered. Please refer to the lecture notes distributed during the class.

Practical business	

Language Used in Course	English
Evaluation Method	Assignments (30%) Mid-term exam (30%) Final exam (40%)

Textbook and References

書名	著者名	出版社	出版年	ISBN/ISSN	資料種別
Introductory Econometrics: A modern approach 7e	Wooldridge	Cengage Learning	2020		

U R L	Google Classroom: 5766pj3
Preparation and Review	Students are expected to have a basic understanding of introductory statistics, including probability, distributions, and hypothesis testing. Familiarity with elementary calculus and linear algebra is helpful but not required.
Attached File	
In Addition	
Last Update	2024/03/10 17:12:53

One-credit courses require 45 hours of study. In lecture and exercise-based classes, one credit consists of 15-30 hours of class time and 30-15 hours of preparation and review outside of class. In laboratory, practical skill classes, one credit consists of 30-45 hours of class time and 15-0 hours of preparation and

review outside of class.