Subject	Advanced Econometrics(Special Lectures)II	Subject	Advanced Econometrics(Special Lectures)II
Instructor	KO IAT MENG	Instructor	KO IAT MENG

Day・Period	Wed.4Period
Eligible Participants	3・4
Course Numbering	EAL-ECO391E
Credit(s)	2Credits
Course of Media Class	
Main Subjects	
Object and Summary of Class	This course is one-semester advanced level econometrics. The prerequisites are Econometrics I, II, and Advanced Econometrics I. This course should be regarded as the second PhD level econometrics course and will cover various asymptotic theories, with an emphasis in dependent samples. Time series econometric models will be covered.
Goal of Study	The students are expected to have a much deeper understanding of modern econometrics. The topics covered in this course are essential for rigorous economic research either empirically or theoretically.
Contents and Progress Schedule of the Class	Asymptotic Theory with Dependent Sample (Hayashi Chapter 2; Hansen Chapter 14; Hong Chapter 5 - Stationary and Ergodicity - Martingale and Martingale Difference - WLLN and CLT for ergodic time series Linear Time Series Regression Models (Hansen Chapter 14; Hong Chapter 5) - Static, (Autoregressive) Distributed Lag - Granger Causality ARMA Linear Processes & GARCH (Hamilton Chapter 3–5, 21; Hansen Chapter 14; Hayashi Chapter 6; Hong Chapter 9) - Wold decomposition - GARCH - MLE & QMLE Dynamic Panel Data Model (Hayashi Chapter 3; Hansen Section 17.36–17.42) - Generalized method of moment - Anderson-Hsiao, Arellano-Bond - Blundell-Bond VAR Model (Hamilton Chapter 11; Hansen Chapter 15) Unit-Root Econometrics (Hamilton Chapter 17; Hansen Chapter 16; Hayashi Chapter 9) - Unit root test Cointegration (Hamilton Chapter 19; Hansen Chapter 16; Hayashi Chapter 10) Note: We may not be able to cover all topics due to time constraints. The contents will be adjusted accordingly.
Practical business	
Language Used in Course	English
Evaluation Method	Assignments (40%) Mid-term exam (30%) Final exam (30%)

Textbook and References

書名	著者名	出版社	出版年	ISBN/ISSN	資料種別
Time Series Analysis	Hamilton, James D.	Princeton University Press	1994		
Econometrics	Hansen, Bruce E.		2022		
Econometrics	Hayashi, Fumio	Princeton University Press	2000		
Foundations of Modern Econometrics: A Unified Approach	Hong, Yongmiao	World Scientific Pub Co	2020		

U R L	Google Classroom: wdtexa2
Preparation and Review	Completion of Econometrics I, II, and Advanced Econometrics I is recommended. Reviewing key concepts in regression analysis, asymptotic theory, and time series models will help students follow the course more smoothly.
Attached File	
In Addition	Lecture slides will be distributed. No single textbook will be exactly followed. Selected chapters from different textbooks will be listed as reading materials.
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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.