Course title	Econometrics				
Teacher(s)	Clinton Watkins			開講区分	単位数
				3rd quarter	2.0
Numbering Code	J2ML600	Day・Period	Wed3、Wed4	Timetable Slot Code	3J322

Lesson topic

Economists need good skills in analysing data, estimating and testing economic models, and making useful forecasts. This course aims to develop these skills so that students can understand empirical studies and do their own straightforward empirical research. The course covers commonly used applied econometric techniques and appropriate methodology to obtain sensible results. We will focus on time series methods, but also include some basic cross-sectional econometrics. Classes will be in the computer lab. During class, students will run applied econometrics using the language R for various economic and financial data sets.

Lesson target

By the completion of this course, students should be able to apply the econometric methods covered, program econometric analyses in R, and gain the ability to learn new econometric methods independently.

Syllabus and plan

Topics:
1. Introduction and Administration
2. Getting Started with R
3. Basic Coding in R
4. Linear Regression Model
5. Diagnostic Testing
6. Model Discrimination
7. Econometric Methodology
8. Stationarity.
9. ARIMA Models
10. GARCH Models
11. Vector Autoregression
12. Cointegration

The topics and schedule may be adjusted depending on our progress over the quarter.

Evaluation method

Regular assignments (10%)
Empirical replication project (35%)
Final exam (55%)

Evaluation baseline

The regular assignments will contain empirical exercises that must be completed using R and submitted via GitHub.

The empirical replication project requires students to select a recent published empirical article from a refereed academic journal, independently replicate the applied econometric results of the paper, and document the process of doing so.

The final exam will be closed book.

Notice (include info. on related class)

This course focuses on the empirical application of econometric methods. Masters and doctoral students should also take courses on theoretical econometrics.

Review and preparation

Review mathematics, linear algebra, basic econometrics statistics before the class. Download R and RStudio and install on your computer, and read up on using R.

Office hour・Contact information

Please contact me by email in advance for an appointment (watkins@econ.kobe-u.ac.jp).

Message for student

Please attend all the sessions, work through the examples in class using R, and ask questions to clarify your understanding of the topics we cover.

Improvemenets in Teaching

Additional topics and use of GitHub Classroom.

Text

Required readings will be provided as handouts in class, and will be available on BEEF.

Reference Material

Introductory Econometrics: A Modern Approach / Wooldridge, J.M. : South-Western ,2013 ,ISBN:9781111534394

Classroom Language

English

Keywords

econometrics regression time-series methodology r