ECON300007

Advanced Econometrics

Program : Global Summer Program

Term : Summer 2024

Duration : June 24, 2024 - July 19, 2024

Contact Hours : 54

Fudan Credits : 3

Teaching Modes and Locations:

Modes: Offline + Online

Location: Offline at Fudan University / Online with no specific place

Course Description:

Advanced Econometrics is a course designed to provide an in-depth exploration of the theory and methods of econometrics. Through theoretical presentations and empirical analyses, students will learn how to apply econometric tools for economic data analysis, model estimation, and inference.

Course Goals:

1. Understand the core concepts and basic principles of econometrics.
2. Learn to build, estimate and test econometric models.
3. Learn to work with panel data, time series data, and cross-sectional data.
4. Familiarize yourself with common econometric techniques, including linear regression, instrumental variables methods, and time series analysis.
5. Develop independent research and paper writing skills.

Prerequisites:

No prerequisites.

References:

Econometric Theory and Methods, by Davidson and MacKinnon, Oxford University Press, 2003.

Schedule:

Lecture	Date	Topic
1	June 24 - July 19, 2024	Introduction to Econometric Theory and Methods
2		Basics of Linear Regression Analysis
3		Multiple Linear Regression Analysis
4		Violations of Classical Assumptions and Remedies
5		Instrumental Variables and Two-Stage Least Squares (2SLS)
6		Generalized Method of Moments (GMM)
7		Time Series Econometrics: Autocorrelation and Heteroscedasticity
8		Panel Data Analysis: Fixed Effects and Random Effects Models
9		Limited Dependent Variable Models: Probit and Logit Models
10		Time Series Analysis: ARIMA Models and Cointegration
11		Advanced Topics in Econometrics: Structural Equation Modeling and Bayesian Econometrics
12		Final Exam / Thesis

Assessment:

Assessment Task	Weighting
1. Attendance & Participation	**20%**
2. Assignments & Presentation	**30%**
3. Final Exam / Thesis	**50%**

Grading Scale:

Grades	A	A-	B+	B	B-	C+	C	C-	D	F
100	90-100	85-89	82-84	78-81	75-77	71-74	66-70	62-65	60-61	<60

The instructor will use the grading system as applied by Fudan University.

Credit Point Value:

Component	Contact Hours	Fudan Credits
Academic Lectures	44	3
Thesis/Exam	4	
Field Trip	3	
Seminar	3	
Total	54	

At Fudan University, the duration of one contact hour is 45 minutes, and 18 contact hours are equivalent to 1 credit.

Note: The document is subject to change at the discretion of School of Management, Fudan University.