

## ECON300001

### Financial Econometrics

**Program** : Global Summer Program

**Academic Level**: Undergraduate

**Duration** : July 2025

**Contact Hours** : 54

**Fudan Credits** : 3

#### **Course Description:**

Financial Econometrics is an in-depth study of methods for analyzing financial data. Through theoretical lectures and empirical analysis, students will learn how to process and analyze financial market data, and explore its characteristics, patterns and regularities to support investment decisions and risk management.

#### **Course Goals:**

1. Understand the characteristics and challenges of financial data.
2. Master common financial econometric methods and techniques.
3. Gain proficiency in the use of econometric softwares (such as Eviews, R, etc) for quantitative and statistical analysis.
4. Explore methods for analyzing financial market volatility, value risk, and multivariate time series data.
5. Develop independent research and practical skills in applying time series analysis to solve practical financial problems.

#### **Prerequisites:**

No prerequisites.

#### **Textbook & References:**

Required: Brooks, Chris (2019). *Introductory Econometrics for Finance* (4th Edition), ISBN: 9781108436823, Cambridge University Press. (3th Edition is also fine).

Further Reference: Tsay, Ruey (2010). *Analysis of Financial Time Series* (3rd ed.), Wiley.

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### Schedule:

Lecture	Topic	Activities
1	Review of Linear Regressions	Lecture
2	Univariate Time Series Models I	Lecture
3	Univariate Time Series Models II	Lecture
4	Elements of Forecasting I	Lecture
5	Elements of Forecasting II	Lecture + Take-home Project I
6	Financial Volatility Modelling I	Lecture
7	Financial Volatility Modelling II	Lecture
8	Risk Measures: Value-at-Risk and Expected Shortfall	Lecture
9	Random Walk and Cointegration	Lecture
10	Multivariate Models	Lecture
11	State Space Models	Lecture + Take-home Project II
12	Advanced Topics and Review	Lecture

### Assessment:

Assessment Task	Weighting
Attendance & Participation	10%
Assignments	30%
Final Projects	60%

### 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	
Seminar/Field Trip	6	
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.**