



1. General Information

Course Subject	ECON
Course Number	3283
Course Title	Economic Forecasting
Academic Years	2024-2025
Grading Method	Letter

2. Instructors

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Subclasses: 2A

4. Course Description

Course Description	This course covers essential techniques for analyzing time-oriented economic data and forecasting the future values of a time series. Topics include stochastic process and times series, regression analysis and forecasting, smoothing, autoregressive integrated moving average models, multivariate times series, forecasting volatility as well as financial application of time varying volatility. This course will use Excel heavily for constructing and testing for univariate ARIMA and GARCH-type forecasting models.
Prerequisites	STAT2603 Data management with SAS
Free Elective	Yes

5. Course Objectives

1. To provide a thorough understanding of basic forecasting methods in economics and finance
2. To develop hands-on knowledge and experience in economic and financial forecasting

6. Faculty Learning Goals

- Goal 1: Acquisition and internalization of knowledge of the programme discipline
- Goal 2: Application and integration of knowledge
- Goal 3: Inculcating professionalism
- Goal 4: Developing global outlook
- Goal 5: Mastering communication skills
- Goal 6: Cultivating leadership

7. Course Learning Outcomes						
Course Teaching and Learning Activities	Aligned Faculty Learning Goals					
	1	2	3	4	5	6
CLO1. Students will be able to perform forecasting by collecting and critically analyzing time series data, and applying the appropriate model for generating out-of-sample forecast.	✓	✓	✓	✓	✓	✓
CLO2. Students will be able to evaluate the limitations of different forecasting methods and their potential fixes	✓	✓	✓	✓	✓	✓
CLO3. Students will be able to present and communicate forecasting results with a professional forecasting report	✓	✓	✓	✓	✓	✓

8. Course Teaching and Learning Activities		
Course Teaching and Learning Activities #	Expected Study Hours	Study Load (% of study)
T&L1. Lectures	36	30
T&L2. Tutorial Sessions	12	10
T&L3. Four Individual Assignments	12	10
T&L4. Stock Forecast with Presentation	30	25
T&L5. Self-study	30	25
	Total: 120	Total: 100

9. Assessment Methods			
Assessment Methods	Description	Weight %	Aligned Course Learning Outcomes
A1. Tutorial Participation		10%	1,2,3
A2. Individual Assignments		20%	1,2,3
A3. Stock Forecast with Presentation		20%	1,2,3
A4. Final Exam		50%	1,2,3

Assessment Rubrics	
A2. Individual Assignments	While the detailed assessment rubric may differ slightly across assignments, the criteria of assessment can be broadly divided into two aspects: (1) Statistical Analysis (60%) and (2) Clarity/Readability (40%)
A+,A,A-	
B+,B,B-	
C+,C,C-	
D+,D	

Assessment Rubrics

F	
A3. Stock Forecast with Presentation	Students are required to produce one-step-ahead forecast of 10 stocks for approximately 10 trading days. Performance will be assessed based on (1) choice of model with justification, (2) forecast accuracy using the model, (3) ability to summarize the results in a professional report, and (4) presentation of the forecast results in a professional manner.
A+,A,A-	
B+,B,B-	
C+,C,C-	
D+,D	
F	

10. Course Grade Descriptors

A+,A,A-	<ul style="list-style-type: none"> • All aspects were addressed and researched in great depth. • Demonstrates a clear understanding of and the ability to apply and theory, concepts and issues relating to the topic. • All aspects conform to a high academic / professional standard
B+,B,B-	<ul style="list-style-type: none"> • Most aspects were addressed and researched in depth. • Demonstrates a good understanding and some application of the theory and issues relating to the topic. • Most aspects conform to a high academic / professional standard.
C+,C,C-	<ul style="list-style-type: none"> • Most aspects were addressed and researched adequately. • Demonstrates a good understanding of the theory, concepts and issues relating to the topic but limited application relating to the topic. • Most aspects conform to an acceptable academic / professional standard.
D+,D	<ul style="list-style-type: none"> • Basic aspects were addressed and researched adequately. • Demonstrates mainly description, showing basic understanding of the topic but no application. • Limited aspects conform to academic / professional standards
F	<ul style="list-style-type: none"> • Basic aspects were superficial, inadequate or absent. • Demonstrates limited understanding of the topic and draws conclusions unrelated to the topic. • The written work is not of an academic / professional standard

11. Course Content and Tentative Teaching Schedule

Topic/ Session	Content	Readings
	Introduction	Lecture notes
	Statistical Background for Forecasting	Lecture notes
	Regression Analysis and Forecasting	Lecture notes
	Regression Analysis and Forecasting	
	Exponential Smoothing	Lecture notes
	Identification and Estimation of ARIMA Models	Lecture notes

11. Course Content and Tentative Teaching Schedule

	Forecasting with ARIMA Processes	Lecture notes
	Models for Seasonal Time Series	Lecture notes
	Multivariate Time Series Models	Lecture notes
	Forecasting Volatility: ARCH and GARCH Models	Lecture notes
	Forecasting Volatility: ARCH and GARCH Models	
	Financial Applications of Time Varying Volatility	Lecture notes
	Presentation of Forecast Results and Review	Lecture notes

12. Required/Recommended Readings & Online Materials

Textbook	Strongly Recommended Textbook and Software <ul style="list-style-type: none">• Introductory Econometrics for Finance, Chris Brooks, Cambridge University Press, 3rd edition• Stata and Excel
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13. Means / Processes for Student feedback on Course

✓	Conducting mid-term survey in addition to SETL around the end of the semester
	Online response via Moodle site
	Others

14. Course Policy

Academic Honesty and Integrity

The University Regulations on academic dishonesty will be strictly enforced. Please check the University Statement on plagiarism on <http://www.hku.hk/plagiarism/>.

Cheating or plagiarism of any kind would result in an automatic F grade for the course plus strict enforcement of all Faculty and/or University regulations regarding such behavior. Incident(s) of academic dishonesty will NOT be tolerated.