

**City University of Hong Kong
Course Syllabus**

**offered by Department of Economics and Finance
with effect from Semester A 2017 /18**

Part I Course Overview

Course Title:	Financial Econometrics
Course Code:	EF5070
Course Duration:	1 semester (39 hours)
Credit Units:	3
Level:	P5
Medium of Instruction:	English
Medium of Assessment:	English
Prerequisites: <i>(Course Code and Title)</i>	Nil
Precursors: <i>(Course Code and Title)</i>	Nil
Equivalent Courses: <i>(Course Code and Title)</i>	Nil
Exclusive Courses: <i>(Course Code and Title)</i>	Nil

Part II Course Details

1. Abstract

This course aims to equip students with financial econometric methods to analyse time series in the respect of risk and return, and volatility modelling and risk management. Students are expected to gain practical experience in analysing financial and macroeconomic data.

2. Course Intended Learning Outcomes (CILOs)

(CILOs state what the student is expected to be able to do at the end of the course according to a given standard of performance.)

No.	CILOs	Weighting (if applicable)	Discovery-enriched curriculum related learning outcomes (please tick where appropriate)		
			A1	A2	A3
1.	Apply econometric methods to analyse financial time series	-	√	√	√
2.	Implement econometric models to solve risk management problems	-		√	√
3.	Analyse portfolio risk through various volatility models	-		√	√
		-			

A1: Attitude

Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

A2: Ability

Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to self-life problems.

A3: Accomplishments

Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

3. Teaching and Learning Activities (TLAs)

(TLAs designed to facilitate students' achievement of the CILOs.)

TLA	Brief Description	CILO No.			Hours/week (if applicable)
		1	2	3	
1	Lectures	√	√	√	
2	Assignments/Projects	√	√	√	

4. Assessment Tasks/Activities (ATs)

(ATs are designed to assess how well the students achieve the CILOs.)

Assessment Tasks/Activities	CILO No.			Weighting	Remarks
	1	2	3		
Continuous Assessment: <u>60</u> %					
Coursework (such as assignments/projects)	√	√	√	60%	
Examination: <u>40</u> % (duration: 2 hours , if applicable)					
Examination	√	√	√	40%	
				100%	

5. Assessment Rubrics

(Grading of student achievements is based on student performance in assessment tasks/activities with the following rubrics.)

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B, B-)	Fair (C+, C, C-)	Marginal (D)	Failure (F)
Coursework		Demonstrate very strong knowledge in the subject, and a superior grasp of the critical issue and techniques	Demonstrate good knowledge in the subject, and a good grasp of the critical issue and techniques	Demonstrate adequate knowledge in the subject, and adequate grasp of the critical issue and techniques	Demonstrate limited knowledge in the subject, and some idea of the critical issue and techniques	Demonstrate very little knowledge in the subject, and no awareness of the critical issue and techniques
Examination		Demonstrate very strong knowledge in the subject, and a superior grasp of the critical issue and techniques	Demonstrate good knowledge in the subject, and a good grasp of the critical issue and techniques	Demonstrate adequate knowledge in the subject, and adequate grasp of the critical issue and techniques	Demonstrate limited knowledge in the subject, and some idea of the critical issue and techniques	Demonstrate very little knowledge in the subject, and no awareness of the critical issue and techniques

Part III Other Information (more details can be provided separately in the teaching plan)

1. Keyword Syllabus

Financial Time Series Analysis and its Application
Volatility Models (ARCH, GARCH, EWMA, and Risk Metrics Models)
Market and Credit Risk
VaR

2. Reading List

2.1 Compulsory Readings

(Compulsory readings can include books, book chapters, or journal/magazine articles. There are also collections of e-books, e-journals available from the CityU Library.)

1.	Ruey S. Tsay, Analysis of Financial Time Series, John Wiley & Sons, New Jersey, 2005
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2.2 Additional Readings

(Additional references for students to learn to expand their knowledge about the subject.)

Nil