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②國玄東華大學

教學計劃表 Syllabus

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	名稱(中文) me in Chinese	財務工程			學年/學期 Academic Year/Sem	112/1			
課程名稱(英文) Course Name in English Financial Engineering									
科目代碼 Course Code		ECD0190	系級 Department 博士 & Year		開課單位 Course-Offering Department		經濟學系		
	修別 Type	選修 Elective	學分數/時/ Credit(s)/Hou		3.	3.0/3.0			
授課教師 Instructor /李同龢									
	先修課程 Prerequisite								
課程描述 Course Description									
This course intends to introduce the student to the applications in financial economics field, and analytical tools applicable to analyze securities, particularly using R.									
		課	程目標 Cour	se Object	ives				
This course deals with portfolios of financial assets such as stocks and bonds. It explores the basic principles underlying rational portfolio choice and what these mean for prices determined in the marketplace									
系專業能力 Basic Learning Outcomes						Cor	課程目標與系專業能 力相關性 Correlation between Course Objectives and Dept.'s Education Objectives		
A analys	數理分析能力:通曉經濟學的高階理論技巧,應用數學與賽局解決經濟議題的能力Mathematical								
B 分析。	實證經濟分析能力:通曉經濟學的高階實證技巧,善用資訊科技進行資訊蒐集、資料統計與計量								
Thorou	C 微觀經濟之闡釋能力:通曉高階個體經濟學相關的理論與應用Microeconomic perspective: Thorough understanding of advanced microeconomic theories and relevant application								
宏觀經濟之闡釋能力:通曉高階總體經濟學相關的理論與應用Macroeconomic perspective: Thorough understanding of advanced macroeconomic theories and relevant application									
自我調整適應社會之能力:具備適應現代社會的學養以及就業能力。Employment E opportunities: capabilities of working on important policy and decision challenges in business and government									
溝通表達能力:思路清晰,有能力與人溝通並撰寫高階專業研究報告Communication skills: Having a clear mind and profound ability in presenting advanced professional academic research									
圖示說明Illustration : ● 高度相關 Highly correlated ○中度相關 Moderately correlated									
授課進度表 Teaching Schedule & Content									
週次Week 內容 Subject/Topics					,	備註Remarks			
1	Introduction: Analytical thinking and introduction to R								
2	Introduction to	R							

3

Financial statistics

4	Time series I						
5	Time series II						
6	Equity I						
7	Equity I I						
8	Fixed income						
9	Midterm project presentation						
10	Portfolio I						
11	Portfolio II						
12	Derivatives I						
13	Derivatives II						
14	Banking						
15	Risk management I						
16	Risk management II						
17	Dependence						
18	Project presentation						
	教 學 策 略 Teaching Strategies						
✓ 課堂講	授 Lecture	Field Trip					
其他Miscellaneous:							
	教 學 創 新 自 評 Teaching Self-Evaluation						
創新教學(Innovative Teaching)						
問題導向學習(PBL) ■ ■體合作學習(TBL) ■ 解決導向學習(SBL)							
翻轉教室 Flipped Classroom							
社會責任(Social Responsibility)							
在地實踐Community Practice							
跨域合作(Transdisciplinary Projects)							
一 跨界教學Transdisciplinary Teaching 跨院系教學Inter-collegiate Teaching							
業師合授 Courses Co-taught with Industry Practitioners							
其它 other:							

學期成績計算及多元評量方式 Grading & Assessments									
配分項目	配分比例 Percentage	多元評量方式 Assessments							
Items		測驗 會考	實作 觀察	口頭 發表	專題 研究	創作 展演	卷宗 評量	證照 檢定	其他
平時成績 General Performance	10%		~						
期中考成績 Midterm Exam	35%		~		>				
期末考成績 Final Exam	35%		~		~				
作業成績 Homework and/or Assignments	20%		~						
其他 Miscellaneous									

評量方式補充說明

Grading & Assessments Supplemental instructions

教科書與參考書目(書名、作者、書局、代理商、說明)

Textbook & Other References (Title, Author, Publisher, Agents, Remarks, etc.)

No required textbook. Handouts will be used in the class.

課程教材網址(含線上教學資訊,教師個人網址請列位於本校內之網址)

Teaching Aids & Teacher's Website(Including online teaching information.

Personal website can be listed here.)

其他補充說明(Supplemental instructions)