

國立交通大學資訊管理與財務金融學系金融科技跨域學程實施要點

National Chiao Tung University

Department of Information Management and Finance

Implementation Guidelines for Cross-Disciplinary Program of Financial Technology

107.10.23 107學年度第2次系課程委員會議通過

107.11.15 107學年度第1次管理學院課程委員會議通過

107.12.13 107學年度第1次校課程委員會議通過

107.12.27 107學年度第2次教務會議核備

108.03.19 107學年度第10次系課程委員會議通過

108.5.23 107學年度第2次課程委員會議通過

108.6.6 107學年度第4次教務會議核備通過

- 一、 依據國立交通大學跨域學程實施辦法，國立交通大學資訊管理與財務金融學系(以下簡稱本系)為鼓勵學生進行跨領域學習，建立跨域學習深度，協助學生拓展第二專長，提供學生可以在畢業學分不增加(或僅少量增加)情況下，修畢跨域學程，特訂定本要點。

These Implementation Guidelines are prescribed by National Chiao Tung University Department of Information Management and Finance (hereinafter referred to as Our Department, or abbreviated as IMF) based on NCTU Cross-Disciplinary Program Implementation Regulations to provide the opportunity for students to proceed cross-disciplinary learning without increasing graduate credits (or only a few extra credits) in order to encourage students to conduct cross-disciplinary study, build the depth of cross-disciplinary study, and assist students to expand second specialty.

- 二、 跨域學程係指由交通大學的學系、研究所、或學院提出模組課程，模組課程應包含該領域基礎核心知識，且總學分數以 30 學分為原則(最低可為 28 學分，最高不可超過 32 學分)，學生修習跨域學程，其課程將包含所屬學系的跨域學程模組課程以及第二專長系所或學院的跨域學程模組課程，並可於畢業證書上加註第二專長模組課程為「跨域專長」。

The cross-disciplinary program here means the cross-disciplinary module curriculum proposed by the departments, institutes or colleges in National Chiao Tung University. Module curriculum should include the core knowledge curriculum of the field and the total credits will be based on 30 credits (the minimum 28 credits and no more than 32 credits). The cross-disciplinary program that students take will include the cross-disciplinary program module curriculum of the department they belong to as well as the cross-disciplinary program module curriculum from the second specialty department or college. The module curriculum of the second specialty could be remarked as “Cross-Disciplinary Specialty” on the diploma.

- 三、 本要點實施細節

Guidelines in detail

- (一) 適用對象：本系 105 學年度(含)之後入學之學士班學生均適用本要點。

People applicable to this program: IMF undergraduate students who are or after class of 2016.

- (二) 申請程序：

Procedure to apply for this program:

1. 本系學生欲修習本學程者得於每學年下學期向本系提出申請，經本系及資訊工程學系課程委員會審查通過後，方可修習本學程。

Students may submit applications to the IMF department during the second semester of every academic year. The application will be evaluated by the Curricular Committees at the IMF and the

CS departments, respectively. Students are enrolled in the cross-disciplinary program only after their applications have been approved by both sides.

2. 本學程的課程列示於『資訊管理與財務金融學系「金融科技跨域學程」必修科目表』，其課程包含：校必修(含共同必修 28 學分)、本系基礎必修課程(70 學分)、以及金融科技跨域模組(31 學分)，畢業學分至少 129 學分。

Courses included in this program are listed on “The Required Course List for the students at our department study cross-disciplinary program of Financial Technology”. Courses are classified as:
Required courses of the university: 28 credits.

Core curriculum at IMF department: 71 credits.

Cross-disciplinary program module courses of Financial technology: 31 credits.

At least 130 credits are required for graduation.

3. 修習本學程之學生，若無法完成修畢本學程所規定之課程，可回復修習原資訊管理與財務金融學系的學士學位課程。

For students at our department who study for cross-disciplinary program but are not able to complete the program, they shall give up the cross-disciplinary program and transfer to study for the bachelor degree program at the original department of Information Management and Finance.

- 四、本系指定一名專任教師擔任跨域學程導師，與資訊工程學系的跨域學程導師組成導師群，專責輔導跨域學程的學生。

Our department assigned one full-time teacher to be the mentor of the cross-disciplinary program and formed mentor group with teachers of cross-disciplinary program at Department of Computer Science to give guidance to cross-disciplinary program students.

- 五、為鼓勵不同系所或學院合作提出跨域共授課程，由兩位以上教師開授跨領域之創新整合式課程，得依本校教師授課鐘點核計原則第九條第六款規定，教師的授課鐘點數可按到場時數計，但以開課前該門課程之實際簽呈為依據。

In order to encourage different departments or colleges working together for the proposal of cross-disciplinary curriculum, the number of teaching hours for the innovating integrated curriculum offered by more than two teachers could be calculated by the actual time of teaching according to Subparagraph 6, Article 9 of National Chiao Tung University Teaching Hours Accounting Principle; however, it will be in accordance with the official approval of the curriculum before the course starts.

- 六、本要點如遇修訂，須主動知會資訊工程學系。

If these guidelines need to be revised, our department should notify Department of Computer Science.

- 七、本要點如有未盡事宜，悉依本校學則及其他相關規定辦理。

If there is any unaccomplished matter of these guidelines, it shall be handled in accordance with the school constitution of our university as well as other relevant regulations.

- 八、本要點經本系課程委員會通過後，經院、校級課程委員會通過並提教務會議核備後實施，修訂時亦同。

These guidelines were approved by Curricular Committee at Department, confirmed by Curricular Committee at college and university level, and then submitted to the Council of Academic Affairs for approval-for-reference before putting it into practice; the same shall be done upon any amendment thereto.

資訊管理與財務金融學系金融科技跨域學程本系學生 必修科目表

The Required Course List for the students at our department
study cross-disciplinary Program of Financial Technology

類別 Category	科目名稱 Course Name	學分 Credit	開課系所 Department	備註 Remark
本系基礎必修 (70 學分) Core curriculum at our department (70 credits)	生涯規劃與導師時間(一)(二) Career Planning and Mentor's Hours (I)(II)	0	資財系 IMF	
	微積分甲(一)(二) Calculus (I)(II)	8	微積分 教學小組	資管組
	微積分乙(一)(二) Calculus (I)(II)	8	微積分 教學小組	財金組
	經濟學(一) Economics(I)	3	管理學院 COM	
	經濟學(二) Economics(II)	3	管理學院 COM	
	會計學(一)(二) Accounting(I)(II)	6	管理學院 COM	
	計算機概論 Introduction to Computer Science	3	管理學院 COM	
	程式設計 Programming	3	管理學院 COM	
	線性代數 Linear Algebra	3	管理學院 COM	
	進階程式設計 Advanced Programming	3	資財系 IMF	
	統計學(一)(二) Statistics(I)(II)	6	管理學院 COM	
	作業研究(一) Operations Research(I)	3	管理學院 COM	
	財務管理 Financial Management	3	資財系 IMF	
	資財導論 Introduction to Information Management and Finance	2	資財系 IMF	
	資料結構 Data Structures	3	資財系 IMF	
	管理學 Management	3	管理學院 COM	
	資料庫管理 Database Managements	3	資財系 IMF	

	管理資訊系統 Management Information System	3	資財系 IMF		
	個體經濟學 Microeconomics	3	資財系 IMF		
	總體經濟學 Macroeconomics	3	資財系 IMF		
	期貨與選擇權 Futures and Options	3	資財系 IMF		
	財務報表分析 Financial Statement Analysis	3	資財系 IMF		
金融科技跨域模組 (31 學分) Cross-disciplinary modules at our department (31 credits) 修畢於畢業證書加註 『跨域專長：金融科 技』 It could be remarked as “Cross-Disciplinary Specialty: Financial Technology” on the diploma after the module curriculum is completed.	共同必修 (10 學分)	投資學 Investments	3	資財系 IMF	
		Compulsory Courses (10 credits)	跨領域專題(一)(二) Cross-disciplinary Project (I) (II)	4	資財系 IMF 資工系 CS
	企業講座 或 金融科技導論 Seminar on Business or Introduction to Financial Technology		3	資財系 IMF 資工系 CS	
	資訊科技 模組 (9 學分) (9 credits)		演算法概論 Introduction to Algorithms	3	資工系 CS
		計算機網路概論 Introduction to Computer Networks	3	資工系 CS	
		人工智慧概論 Introduction to Artificial Intelligence	3	資工系 CS	
		基礎程式設計 Basic Programming	0	資工系 CS	認證考試
	選修 (12 學分) Elective Courses (12 credits)	系統分析與設計 System Analysis and Design	3	資財系 IMF	
		商用資料通訊 Business Data Communications	3	資財系 IMF	
		金融資訊系統設計 Design of Financial Information Systems	3	資財系 IMF	
數理統計 Mathematical Statistics		3	資財系 IMF		
財務工程導論 Introduction in Financial Engineering		3	資財系 IMF		
財務計量經濟學		3	資財系 IMF		

	Financial Econometrics			
	貨幣銀行與金融風暴 Money, Banking , and Financial Crisis	3	資財系 IMF	
	金融科技與金融機構 Financial Technology and Institutions	3	資財系 IMF	
	離散數學 Discrete Mathematics	3	資財系 IMF 資工系 CS	
	資料探勘 Data Mining	3	資工系 CS	
	電腦安全概論 Introduction to Computer Security	3	資工系 CS	
	基因演算法 Genetic Algorithm	3	資工系 CS	
	資料視覺化與視覺分析 Data Visualization and Visual Analytics	3	資工系 CS	
	巨量資料分析技術與應用 Big Data Analytics Techniques and Applications	3	資工系 CS	
校必修 (含共同必修 28 學分) Required courses of the university (including 28 credits of general education subjects)		28		
最低畢業學分 Minimum Graduate Credits		129		