國立陽明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 Yang Ming Chiao Tung University
Department of Information Management and Finance
Implementation Guidelines for Cross-Disciplinary Program of Financial Technology

一、　依據國立陽明交通大學跨域學程實施辦法，國立陽明交通大學資訊管理與財務金融學系(以下簡稱本系)為鼓勵大學部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 Yang Ming Chiao Tung University Department of Information Management and Finance (hereinafter referred to as Our Department, or abbreviated as DIF) based on NYCU 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 expanding second specialty.

二、　跨域學程係指由陽明交通大學的學系、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)。

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 30 credits (minimum 28 credits and no more than 32 credits).

三、　本要點實施細節

Guidelines in detail

(一) 適用對象：本系學士班學生均適用本要點。

People applicable to this program: DIF undergraduate students.

(二) 申請程序：

Procedure to apply for this program:

1. 本系學生欲修習本學程者須於每學年度公告申請期限內向本系提出申請，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 DIF department during the second semester every academic year. The application will be evaluated by the Curricular Committees at the DIF 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：校共同必修、本系基礎必修課程、本系專業選修課程以及金融科技跨域模組，畢業學分至少 130 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, Compulsory courses at DIF department, Elective Professional Courses at DIF department, and Cross-disciplinary program module courses of Financial technology. 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 take credits of bachelor degree program at their original department, 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，得依本校教師授課時數核計原則規定辦理。

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 according to National Yang Ming Chiao Tung University Principles for Verifying and Calculating Teachers' Teaching Hours.

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後實施，修訂時亦同。

These guidelines were approved by Curricular Committee at Department, and confirmed by Curricular Committee at college and university level 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
(113 學年度入學適用)
The Required Course List for the students at our department who 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 (資管組 69 學分、財金組 72 學分) Compulsory courses at our department (Information management: 69; Finance: 72)	高齡財務規劃與風險 Elderly Financial Planning and Risk	2	資財系 DIF	專業服務學習
	生涯規劃與導師時間(一)(二) Career Planning and Mentor's Hours (I)(II)	2	資財系 DIF	
	微積分甲(一)(二) Calculus (I)(II)	8	微積分教學小組	
	經濟學(一)(二) Economics(I)(II)	6	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	
	資料結構 Data Structures	3	資財系 DIF	
	統計學(一)(二) Statistics(I)(II)	6	管理學院 COM	
	財務管理 Financial Management	3	資財系 DIF	
	管理資訊系統 Management Information System	3	資財系 DIF	
	金融科技概論 Introduction to Financial Technology	3	資財系 DIF	
	個體經濟學 Microeconomics	3	資財系 DIF	財金組
	管理學 Management	3	管理學院 COM	
	資料庫管理 Database Managements	3	資財系 DIF	
	總體經濟學 Macroeconomics	3	資財系 DIF	財金組
	期貨與選擇權 Futures and Options	3	資財系 DIF	
	公司理財 Corporate Finance	3	資財系 DIF	
	人工智慧理論與實作 Artificial Intelligence: Theory and Practice	3	資財系 DIF	資管組
	財務報表分析 Financial Statement Analysis	3	資財系 DIF	

本系專業選修 (資管組6學分、 財金組3學分) Elective Professional Courses at our department: 3~6 credits.	由本系專業選修課程任選：資管組6學分、財金組3學分，且不得與「金融科技跨域模組選修課程」重複認列學分。 Any from the elective professional courses (Information Management: 6 and Finance: 3) Credits above can't overlap with the ones in Cross-Disciplinary Modules		資財系 DIF	
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) Compulsory Courses (10 credits)	投資學 Investments	3	資財系 DIF	
		金融科技跨領域專題(一)(二) Cross-disciplinary Project (I) (II)	4	資財系 DIF	可用本系資訊與財金專題(一)(二)抵免 The credits of Bachelor Thesis of Information Management and Finance (I)(II) in our department can be viewed as exemption
		企業講座 Seminar on Business or Introduction to Financial Technology	3	資財系 DIF 資工系 CS	詳細課程名稱依當學期公告。 Detailed courses name to be announced
	資訊科技 模組 (9學分) Information technology Module (9 credits)	演算法概論* Introduction to Algorithms	3	資工系 CS	1. 可用本系「演算法」抵免 The credits of Algorithms in our department can be viewed as exemption 2. 資工系重要課程擋修制度請參閱該系學士班修業辦法。For the prerequisite of some important courses in CS, please check the CS regulations
		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 DIF	
		企業資料通訊與網路 Business Data Communications & Networks	3	資財系 DIF	
		資訊安全	3	資財系 DIF	

		Information Security			
	須修習開課系所為資工系之課程至少 6 學分。 At least 6 credits from CS department	資料科學 Data Science	3	資財系 DIF	
		數理統計 Mathematical Statistics	3	資財系 DIF	
		財務工程導論 Introduction in Financial Engineering	3	資財系 DIF	
		財務計量經濟學 Financial Econometrics	3	資財系 DIF	
		財務風險管理 Financial Risk Management	3	資財系 DIF	
		貨幣銀行與金融風暴 Money, Banking, and Financial Crisis	3	資財系 DIF	
		國際財務管理 International Financial Management	3	資財系 DIF	
		資料探勘 Data Mining	3	資工系 CS	
		電腦安全總整與實作* Computer Security Capstone	3	資工系 CS	*資工系重要課程擋修制度請參閱該系學士班修業辦法。For the prerequisite of some important courses in CS, please check the CS regulations
		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	
		資料庫系統概論 Intro. to Database Systems	3	資工系 CS	
		機器學習概論 Intro. to Machine Learning	3	資工系 CS	
		人工智慧總整與實作* Artificial Intelligence Capstone	3	資工系 CS	*資工系重要課程擋修制度請參閱該系學士班修業辦法。For the prerequisite of some important courses in CS, please check the CS regulations
		密碼學概論 Intro. to Cryptography	3	資工系 CS	
		網路程式設計概論 Intro. to Network Programming	3	資工系 CS	

		數值方法 Numerical Methods	3	資工系 CS	
校必修 (含共同必修 24 學分) General courses of the university (including 28 credits of general education subjects)			24		
最低畢業學分 Minimum Graduate Credits			130		