

國立交通大學資訊工程學系「金融科技跨域學程」實施要點

107 學年度(2018/2019 Academic Year)

National Chiao Tung University Department of Computer Science Implementation Guidelines for Cross-Disciplinary Program of Financial technology

資訊工程學系 107 學年度第 3 次課程委員會修訂(107 年 10 月 05 日)

資訊學院 107 學年度第 1 次教學與課程委員會修訂(107 年 11 月 13 日)

- 一、依據國立交通大學跨域學程實施辦法，國立交通大學資訊工程學系(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，特訂定本實施要點。

These Implementation Guidelines are prescribed by National Chiao Tung University Department of Computer Science (hereinafter referred to as Our Department) 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、依據國立交通大學跨域學程實施辦法，本系學生修習「金融科技跨域學程」(以下簡稱本學程)，於修畢後可於畢業證書上加註「金融科技」為跨域專長。

According to NCTU Implementation Guidelines for Cross-Disciplinary Program, students in CS department could be remarked as “Financial technology” on the diploma once they complete this program.

- 三、本要點實施細節

1. 適用對象：本校104學年度(含)之後入學之學士班學生均適用本要點。

2. 申請程序：

- (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，經本系及資訊管理與財務金融學系課程委員會審查通過後，方可修習本學程。
- (2) 本學程的課程列示於『資訊工程學系「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30學分)，本系基礎必修課程(67學分)，以及金融科技跨域模組(31學分)，畢業學分至少128學分。
- (3) 修習本學程之學生，若無法完成(2)中所規定之課程，可回復修習原資訊工程學系的學士學位課程。

Guidelines in detail

1) People applicable to this program: undergraduate students who are or after class of 2015.

2) Procedure to apply for this program:

- (I) Students may submit applications to the CS department during the second semester of every year. The application will be evaluated by the Curricular Committees at the CS and the IMF departments, respectively. Students are enrolled in the cross-disciplinary program only after their applications have been approved by both sides.
- (II) Courses included in this program are listed on “The Required Course List for the students at our department study cross-disciplinary program in department of Electrical and Computer Engineering”. Courses are classified as:
Required courses of the university: 30 credits.
Core curriculum at CS department: 67 credits.
Cross-disciplinary program module courses of Financial technology: 31 credits.
At least 128 credits are required for graduation.
- (III) 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 Computer Science.

- 四、本系指定一名專任教師擔任跨域學程導師，與資訊管理與財務金融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 other department or college to give guidance to cross-disciplinary program students.

- 五、本要點如遇修訂，須主動知會資訊管理與財務金融學系。

CS department should notify IMF department if the guidelines need to be revised.

- 六、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.

- 七、本要點經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 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.

107 學年度
資訊工程學系「金融科技跨域學程」必修科目表
2018/2019 Academic Year

Courses for CS Department Cross-disciplinary Program in IMF Department

類別 Category	選別 Classification	科目名稱 Courses	學分 Credits		開課系所 Dept.	備註 Remarks
			上學期 Fall Semester	下學期 Spring Semester		
本系基礎必修 (67 學分) Core curriculum at our department (60 credits)	必修+專業選修=67 學分 必修：請參閱本系各組必修科目表 專業選修：67 學分-各組必修學分 以 107 學年度入學為例， 資訊工程組：必修 57 學分+專業選修 10 學分 資電工程組：必修 60 學分+專業選修 7 學分 網路與多媒體工程組：必修 57 學分+專業選修 10 學分 Required Courses + Professional Elective Courses = 67 credits Required Courses: Please refer to the required course list for each program at our department Professional Elective Courses: 67 credits for required course of each program Take the student enrolled at 107 academic year for example, Computer Science and Engineering Program: Required Courses 57 credits + Professional Elective Courses 10 credits Computer Science and Electrical Engineering Program: Required Courses 60 credits + Professional Elective Courses 7 credits Networking and Multimedia Engineering Program: Required Courses 57 credits + Professional Elective Courses 10 credits					
金融科技跨域 模組 (31 學 分) 修畢於畢業證 書加註『跨域 專長：金融科 技』 Cross- disciplinary modules at other department (31 credits) Could be remarked as “Cross- Disciplinary Specialty : Financial technology” on the diploma	共同必修 (10 學分) Compulsory Courses (10 credits)	投資學 Investment		3	資財 IMF	
		跨領域專題(一)(二) Cross-disciplinary Project (I) (II)	2	2	資工/ 資財 CS/IMF	
		企業講座 或 金融科技導論 Seminar on Business or Introduction to Financial Technology		3	資工/資 財 CS/IMF	
	財務金融模組 (9 學分) Financial technology modules (9 credits)	經濟學概論 Introduction to Economics	3		資財 IMF	
		財務報表分析 Financial Statement Analysis	3		資財 IMF	
		財務管理 Financial Management		3	資財 IMF	
	選修 (12 學分) Elective Courses (12 credits)	數理統計 Mathematical Statistics			資財 IMF	
財務工程導論 Introduction in Financial Engineering				資財 IMF		
金融資訊系統設計 Design of Financial Information Systems				資財 IMF		

	財務計量經濟學 Financial Econometrics		資財 IMF
	系統分析與設計 System Analysis and Design		資財 IMF
	電子商務 Electronic Commerce		資財 IMF
	商用資料通訊 Business Data Communications		資財 IMF
	貨幣銀行與金融風暴 Money, Banking , and Financial Crisis		資財 IMF
	金融科技與金融機構 Financial Technology and Financial Institutions		資財 IMF
	人工智慧 Artificial Intelligence		資工 CS
	期貨與選擇權 Futures and Options		資財 IMF
	資料探勘 Data Mining	3	資工 CS
	電腦安全概論 Computer Security	3	資工 CS
	基因演算法 Genetic Algorithm	3	資工 CS
	資料視覺化與視覺分 析 Data Visualization and Visual Analytics	3	資工 CS
	巨量資料分析技術與 應用 Big Data Analytics Techniques and Applications	3	資工 CS
	校必修 Common Required Courses	30	校必修：含共同必修 30 學分（含外語課程必修 8 學分），至多採計 40 學分 Required courses of the university (including 28 credits of general education subjects, 8 credits of foreign language course inclusive with the maximum 40 credits countable)
	最低畢業學分 Minimum Credits Required for Graduation	128	

註 1：本校共同必修科目表規定，外語課程必修至少 6 學分。如大學部學生修習共同必修學分數超過 28 學分以上，本校至多可採至 40 學分於最低畢業學分內，但各學系另有規定者，從其規定。