

資訊管理與財務金融學系財務金融碩士班

109 學年度

最低修業年限	一年
應修學分數	39 學分(不含先修課程)
應修課程	<p>先修課程：經濟學、會計學、統計學 (得憑大學以上成績單證明或其他同等級課程相關證明提出申請，可免修或改修相關課程)</p> <p>共同必修課程：財務管理、投資學、期貨與選擇權、財務計量經濟學、金融機構與市場、財金理論與實務(一)、財金理論與實務(二)、碩士論文研究</p> <p>各組必修課程：</p> <p>一、財務工程組：(1) 財務數學 (2) 衍生性商品理論</p> <p>二、財務決策組：(1) 財務報表分析 (2) 國際財務管理</p>

Department of Information Management and Finance Graduate Program of Finance Academic Requirements for Master Students Academic year 2020

Minimum Period of Study	One year
Minimum Graduation Credits	39 credits (excluding preliminary courses)
Prerequisite Courses and Core Courses	<p>Preliminary courses: Economics, Accounting, Statistics (can be waived with official college transcript or certificate of other equivalent courses)</p> <p>Common Core Courses: <u>Financial Management, Investment, Futures and Options, Financial Econometrics, Financial Institutions and Markets, Theory and Practice in Finance (1), Theory and Practice in Finance (2), Thesis</u></p> <p>Other Required Courses for Each Major:</p> <p>1. Financial Engineering: (1) <u>Financial Mathematics</u> (2) <u>Theory of Derivatives</u></p> <p>2. Financial Decision: (1) <u>Financial Statement Analysis</u> (2) <u>Multinational Financial Management</u></p>

資訊管理與財務金融學系財務金融博士班

109 學年度

最低修業年限	二年			
應修學分數	35 學分 (不含先修課程)			
直升博士生應修學分數	41 學分 (不含先修課程)			
應修課程	<ul style="list-style-type: none"> ● 先修課程：經濟學、會計學、統計學(得憑大學以上成績單或其他同等級課程相關證明，申請免修或改修相關課程) ● 課程結構：(下述之 AI 博士生系指由 AI 領域博士班聯招入學之研究生) 			
	類別	課程名稱	學分數	備註
	基礎課程 (共 9 學分)	財務管理	3 學分	基礎課程 6 選 3
		期貨與選擇權	3 學分	
		投資學	3 學分	
		衍生性商品理論	3 學分	
		財務計量經濟學	3 學分	
		財務數學	3 學分	
	核心課程 (共 11 學分)	財務理論(博)	3 學分	
		高等財務計量(博)	3 學分	
		博士班論文研討 A	1 學分	<ul style="list-style-type: none"> ❖ 財金博士生(不含 AI 博士生): 博一至博三上必修，需修滿 5 學分，超過 5 學分者不予採計。 ❖ AI 博士生: 博一必修，需修滿 2 學分，超過 2 學分者不予採計。
		博士班論文研討 B	0 學分	<ul style="list-style-type: none"> ❖ 財金博士生(不含 AI 博士生): 博三下至博六下必修。 ❖ AI 博士生: 博二上至博二下必修。
		人工智慧與金融科技實務	3 學分	本課程為 AI 博士生必修；可以財金博委會審查通過之其他相關課程取代。
	專業課程 (財金博士生 (不含 AI 博士生)共 6 學分； AI 博士生共 3 學分)	財務決策專題(博)	3 學分	❖ 財金博士生(不含 AI 博士生) : 前 4 個專題 4 選 2。
		財務工程專題(博)	3 學分	
金融機構專題(博)		3 學分		
財務經濟專題(博)		3 學分		
數據科學專題		3 學分	❖ AI 博士生 : 專業課程 5 選 1。	
類別	課程名稱	學分數	備註	
其他課程 (財金博士生 (不含 AI 博士生)共 9 學分； AI 博士生共 12 學分)	個別研究	1 學分	<ul style="list-style-type: none"> ❖ 「個別研究」課程：需擇定指導教授後方可選修。 ❖ 財金博士生(不含 AI 博士生): 本課程至多採計 6 學分。 ❖ AI 博士生: 本課程至多採計 3 學分。 	
	財金博士生(不含 AI 博士生): 其他選修課程(含其他由財金博委會通過之相關課程)		❖ 財金博士生(不含 AI 博士生) : 外系所課程至多採計 6 學分。(不含由財金博委會通過之相關課程)。	
	AI 博士生可選修下列本校開設之其他相關課程: ◇ 資料探勘			

備註	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%; vertical-align: top;"> <ul style="list-style-type: none"> ◇ 統計方法 ◇ 數據科學概論與軟體實務 ◇ 巨量資料分析技術與應用 ◇ 機器學習(演算法與應用) ◇ 平行程式設計 ◇ 資料視覺化與視覺分析 ◇ 統計計算 ◇ 多變量分析 ◇ 財務時間序列分析 ◇ 或其他由財金博委會通過之相關課程 </td> <td style="width: 70%; vertical-align: top;"> <ul style="list-style-type: none"> ❖ AI 博士生: 可修習左述本校開設之其他相關課程。 ❖ 表列之各項課程如有修習超過必修之學分數者, 得列計為選修課程。 </td> </tr> </table> <p>➤ 其他事項: 本班之外籍生在財金博委會同意下, 可申請至臺灣聯合大學系統修讀應修課程中的「基礎課程」以及「其他課程」; 申請通過後, 其所修讀臺灣聯合大學系統之課程, 可視同本系開設之課程, 但最多採計 15 學分。</p>	<ul style="list-style-type: none"> ◇ 統計方法 ◇ 數據科學概論與軟體實務 ◇ 巨量資料分析技術與應用 ◇ 機器學習(演算法與應用) ◇ 平行程式設計 ◇ 資料視覺化與視覺分析 ◇ 統計計算 ◇ 多變量分析 ◇ 財務時間序列分析 ◇ 或其他由財金博委會通過之相關課程 	<ul style="list-style-type: none"> ❖ AI 博士生: 可修習左述本校開設之其他相關課程。 ❖ 表列之各項課程如有修習超過必修之學分數者, 得列計為選修課程。
<ul style="list-style-type: none"> ◇ 統計方法 ◇ 數據科學概論與軟體實務 ◇ 巨量資料分析技術與應用 ◇ 機器學習(演算法與應用) ◇ 平行程式設計 ◇ 資料視覺化與視覺分析 ◇ 統計計算 ◇ 多變量分析 ◇ 財務時間序列分析 ◇ 或其他由財金博委會通過之相關課程 	<ul style="list-style-type: none"> ❖ AI 博士生: 可修習左述本校開設之其他相關課程。 ❖ 表列之各項課程如有修習超過必修之學分數者, 得列計為選修課程。 		

Department of Information Management and Finance Graduate Program of Finance Academic Requirements for Doctoral Students

Academic year 2020

minimum periods	2 years																														
minimum graduation credits	35 credits (excluding preliminary courses)																														
minimum graduation credits of students admitted to the PhD program from MA program	41 credits (excluding preliminary courses)																														
Courses	<ul style="list-style-type: none"> ● Preliminary Course: Economics, Accountings, and Statistics (Students may apply to exempt the courses or change to other courses according to their transcriptions of university level or above, or certificates of other programs at the same level.) ● Course structure: (the AI PhD students refer to students that enrolled from “doctoral program joint enrollment in AI fields”) 																														
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Type</th> <th style="width: 35%;">Title</th> <th style="width: 15%;">Credits</th> <th style="width: 35%;">Remarks</th> </tr> </thead> <tbody> <tr> <td rowspan="6" style="text-align: center; vertical-align: middle;">Basic Courses (9 credits in total)</td> <td>Financial Management</td> <td style="text-align: center;">3</td> <td rowspan="6" style="text-align: center; vertical-align: middle;">Basic Courses (3 out of 6)</td> </tr> <tr> <td>Futures and Options</td> <td style="text-align: center;">3</td> </tr> <tr> <td>Investment</td> <td style="text-align: center;">3</td> </tr> <tr> <td>Theory of Derivatives</td> <td style="text-align: center;">3</td> </tr> <tr> <td>Financial Econometrics</td> <td style="text-align: center;">3</td> </tr> <tr> <td>Financial Mathematics</td> <td style="text-align: center;">3</td> </tr> <tr> <td rowspan="3" style="text-align: center; vertical-align: middle;">Core Courses (11 credits in total)</td> <td>Financial Theory (I)</td> <td style="text-align: center;">3</td> <td rowspan="3" style="text-align: center; vertical-align: middle;"> <u>Finance PhD students (AI PhD students excluded):</u> The required courses should be fulfilled with 5 credits in total from the 1st academic year to the 1st semester of the 3rd academic year. Credits over 5 are not adopted. <u>AI PhD students:</u> The required courses should be fulfilled with 2 credits in total in the 1st academic year. Credits over 2 are not adopted. </td> </tr> <tr> <td>Advanced Financial Econometrics</td> <td style="text-align: center;">3</td> </tr> <tr> <td>Seminar in Finance for Doctoral Students A</td> <td style="text-align: center;">1</td> </tr> <tr> <td></td> <td>Seminar in Finance for Doctoral Students B</td> <td style="text-align: center;">0</td> <td> <u>Finance PhD students (AI PhD students excluded):</u> The course is required from the 2nd semester of the 3rd academic year to the 6th academic year. <u>AI PhD students:</u> The course is required in the 2nd academic year. </td> </tr> </tbody> </table>	Type	Title	Credits	Remarks	Basic Courses (9 credits in total)	Financial Management	3	Basic Courses (3 out of 6)	Futures and Options	3	Investment	3	Theory of Derivatives	3	Financial Econometrics	3	Financial Mathematics	3	Core Courses (11 credits in total)	Financial Theory (I)	3	<u>Finance PhD students (AI PhD students excluded):</u> The required courses should be fulfilled with 5 credits in total from the 1st academic year to the 1st semester of the 3rd academic year. Credits over 5 are not adopted. <u>AI PhD students:</u> The required courses should be fulfilled with 2 credits in total in the 1st academic year. Credits over 2 are not adopted.	Advanced Financial Econometrics	3	Seminar in Finance for Doctoral Students A	1		Seminar in Finance for Doctoral Students B	0	<u>Finance PhD students (AI PhD students excluded):</u> The course is required from the 2nd semester of the 3rd academic year to the 6th academic year. <u>AI PhD students:</u> The course is required in the 2nd academic year.
	Type	Title	Credits	Remarks																											
	Basic Courses (9 credits in total)	Financial Management	3	Basic Courses (3 out of 6)																											
		Futures and Options	3																												
		Investment	3																												
		Theory of Derivatives	3																												
		Financial Econometrics	3																												
		Financial Mathematics	3																												
	Core Courses (11 credits in total)	Financial Theory (I)	3	<u>Finance PhD students (AI PhD students excluded):</u> The required courses should be fulfilled with 5 credits in total from the 1st academic year to the 1st semester of the 3rd academic year. Credits over 5 are not adopted. <u>AI PhD students:</u> The required courses should be fulfilled with 2 credits in total in the 1st academic year. Credits over 2 are not adopted.																											
Advanced Financial Econometrics		3																													
Seminar in Finance for Doctoral Students A		1																													
	Seminar in Finance for Doctoral Students B	0	<u>Finance PhD students (AI PhD students excluded):</u> The course is required from the 2nd semester of the 3rd academic year to the 6th academic year. <u>AI PhD students:</u> The course is required in the 2nd academic year.																												

	Practices of Artificial Intelligence and Financial Technology	3	Required course of AI PhD students ; can be replaced with other courses that approved by the IOF PhD Program Committee.
Professional Courses (Finance PhD students (AI PhD students excluded): 6 credits in total ; AI PhD students: 3 credits in total)	Special Topics on Corporate Finance	3	Finance PhD students (AI PhD students excluded): 2 out of first 4 courses AI PhD students: 1 out of 5 courses
	Special Topics on Financial Engineering	3	
	Seminar on Financial Institutions	3	
	Special Topics in Financial Economics	3	
	Data Science Project	3	

Type	Title	Credits	Remarks
Other Courses (Finance PhD students (AI PhD students excluded): 9 credits in total ; AI PhD students: 12 credits in total)	Independent Study	1	The course, "Independent Study," may be selected by students having passed the PhD candidate qualification examination and determined their advisors. Finance PhD students (AI PhD students excluded): At most 6 credits are adopted. AI PhD students: At most 3 credits are adopted.
	Finance PhD students (AI PhD students excluded): Other elective courses (including other courses that approved by the IOF PhD Program Committee.) AI PhD students can choose the following related courses: <ul style="list-style-type: none"> ✧ Data Mining ✧ Statistical Methods ✧ Introduction to Data Science and Software Practice ✧ Big Data Analytics Techniques and Applications ✧ Machine Learning (Algorithm and Its Application) ✧ Parallel Programming ✧ Data Visualization and Visual Analytics ✧ Statistical Computing ✧ Multivariate Analysis ✧ Financial Time Series Analysis ✧ other courses that approved by the IOF PhD Program Committee 		Finance PhD students (AI PhD students excluded): At most 6 credits of the courses in financial field offered by other departments or graduate institutes can be adopted. (other courses that approved by the IOF PhD Program Committee are not included) AI PhD students: can choose courses that listed in the left side. All listed courses can count as elective credits if taken more than the required credits.

- Under the approval of IOF PhD Program Committee, the foreign students can study the "basic courses" and "other courses" given by the University System of Taiwan (UST) and it will be regarded as the courses offered by IOF, but at most 15 credits of the courses can be adopted.

*Applicable also to students admitted before academic year 2020 retrospectively under the approval of student's advisor or the chairman in financial field.

*The Regulations were drawn up in Chinese and translated into English. In the event of any discrepancy between the two versions, the original Chinese version shall prevail.