## 國立金門大學 電機工程學系碩士班 課程規劃表

National Quemoy University Department of Electrical Engineeringl Master's Program Curriculum Plan

114 學年度入學新生適用

本學系碩士生畢業時至少應修滿 30 學分,包括

Applicable for students Admitted in Academic Year 2025

修訂歷程

The Master's Program requires students to complete at least 30 credits for graduation, including:

專業必修: 6 學分 Professional Required: 6 Courses 專業選修: <u>24</u>學分 Professional Electives: 24 Courses Revision History

Approved on March 26, 2025, during the 1st Departmental-level Curriculum Planning Committee Meeting of the 2nd Semester, Academic Year 2024

114年4月15日113學年度第2學期第一次院課程規劃委員會訂定通過 Approved on April 15, 2025, during the 1st college-level Curriculum Planning Committee Meeting of the 2nd Semester, Academic Year

114年0X月XX日113學年度第X學期第X次校級課程規畫委員會訂定通過 Approved on June 5, 2025, during the 1st school-level Curriculum Planning Committee Meeting of the 2nd Semester, Academic Year

		一年級 First Year	上學期 Semester		下學期 Semester		二年級 Second Year	上學期 Semester		下學期 Semester		二年合計
		rirst year	學分	時數	學分 時數 Credits Hours			學分	時數	學分 Credits	時數	Total
共同必	6修	校園學術倫理數位課程	0	Hours 1	Credits	Hours		Credits	Hours	Credits	Hours	
General Re 總計		Research Ethics Education Online		1								
Tota			0		0			0		0		0
專業必修 Professional Required Courses		專題討論(一) Seminar I	0	1			專題討論(三) Seminar III	0	1			
		專題討論(二)			0	1	專題討論(四)			0	1	
		Seminar II					Seminar IV 學位論文		-		_	
							Thesis			6		
總計 Tota			0		0			0		6		6
100		科學計算	3	3			校外實習(一)	0	1			
	研究基 礎領域	Scientific computing					Campus Internship I 校外實習(二)		-			
							Campus Internship II			0	1	
		數位影像處理					展頻通訊					
		Digital Image Processing	3	3			Spread Spectrum Communications	3	3			
		鎖相迴路設計與應用 Design and Application for Phase	3	3			高等計算機結構	3	3			
	系統應 用領域 Communi cation and System Applica	Locked Loop	,				Advanced Computer Structure	3				
		高等電力系統 Advanced Power System	3	3			嵌入式行動機器人 Enbedded Mobile Robot	3	3			
		深度學習概論	2	2			Emocaded Mobile Robot					
		Introduction to Deep Learning	3	3								
		自旋電子材料學 Spintronics materials and devices	3	3								
		數位信號處理			3	3						
		Digital Signal Processing 行動通訊系統										
		Mobile Communication Systems			3	3						
		編碼理論			3	3						
		Coding Theorem 模糊系統				2						
		Fuzzy System			3	3						
		智慧型計算 Intelligent Computation			3	3						
		電力電子實務			3	3						
		Practice of Power Electronic			3							
		深度學習 Deep Learning			3	3						
		太陽能電力系統			3	3						
		Solar Power System										
		at mit					+ - > 1. H H					
專業選修		薄膜工程 Thin Film Engineering	3	3			表面分析技術 Surface Analysis Techniques	3	3			
Professiona l Electives		能量轉換原理	3	3			智慧控制	3	3			
		Energy Conversion Principle 射頻積體電路與模擬					Intelligent Control		-			
		Simulation and Design of Radio	3	3			奈米工程 Nanotechnology			3	3	
		Frequency Integrated Circuits 模式化通訊IC設計					Tvanoteennology					
		Model-based Communication IC	3	3								
		Design 平道脚制和壮術										
		半導體製程技術 Semiconductor Technology	3	3								
	固態與	新能源技術	3	3								
		New Energy Technologies 射頻無線系統與應用										
		Rf Wireless Systems and	3	3								
		l			3	3						
	路領域	超大型積體電路設計 VLSI Design						1				
	路領域 Solid	VLSI Design 表面工程				3			1			
	路領域	VLSI Design 表面工程 Surface Engineering			3	3						
	路領域 Solid state and integra	VLSI Design 表面工程 Surface Engineering 半導體景測技術				3						
	路領域 Solid state and	VLSI Design 表面工程 Surface Engineering 半導體量測技術 Semiconductor Measurement Technology			3							
	路領域 Solid state and integra ted	VLSI Design 表面工程 Surface Engineering 半導體量測技術 Semiconductor Measurement Technology			3							
	路領域 Solid state and integra ted	VLSI Design 表面工程 Surface Engineering 半導體量測技術 Semiconductor Measurement Technology 太陽能技術 Technology of solar energy 通訊網路積體電路設計			3 3	3						
	路領域 Solid state and integra ted	VLSI Design 表面工程 Surface Engineering 半導體量測技術 Semiconductor Measurement Technology 太陽能技術 Technology of solar energy 通訊網路積體電路設計 Communications Network Integrated			3	3						
	路領域 Solid state and integra ted	VLSI Design 表面工程 Surface Engineering 半導體量測技術 Semiconductor Measurement Technology 太陽能技術 Technology of solar energy 通訊網路積體電路設計 Communications Network Integrated Circuit Design 高頻電路佈局與模擬			3 3 3	3 3						
	路領域 Solid state and integra ted	VLSI Design 表面工程 Surface Engineering 半導體量測技術 Semiconductor Measurement Technology 太陽能技術 Technology of solar energy 通訊網路積體電路設計 Communications Network Integrated Circuit Design 高頻電路佈局與模擬 Layout and Simulation of High			3 3	3						
	路領域 Solid state and integra ted	VLSI Design 表面工程 Surface Engineering 半導體量測技術 Semiconductor Measurement Technology 太陽能技術 Technology of solar energy 通訊網路積體電路設計 Communications Network Integrated Circuit Design 高頻電路佈局與模擬			3 3 3	3 3						
	路領域 Solid state and integra ted	VLSI Design 表面工程 Surface Engineering 半導體量測技術 Semiconductor Measurement Technology 太陽能技術 Technology of solar energy 通訊網路積體電路設計 Communications Network Integrated Circuit Design 高頻電路佈局與模擬 Layout and Simulation of High Frequency Circuits 類比積體電路設計與模擬 Analog Integrated Circuits: Design			3 3 3	3 3						
	路領域 Solid state and integra ted	VLSI Design 表面工程 Surface Engineering 半導體量測技術 Semiconductor Measurement Technology 太陽能技術 Technology of solar energy 通訊網路積體電路設計 Communications Network Integrated Circuit Design 高頻電路佈局與模擬 Layout and Simulation of High Frequency Circuits 類比積體電路設計與模擬			3 3 3 3	3 3 3						
	路領域 Solid state and integra ted	VLSI Design 表面工程 Surface Engineering 半導體量測技術 Semiconductor Measurement Technology 太陽能技術 Technology of solar energy 通訊網路積體電路設計 Communications Network Integrated Circuit Design 高頻電路佈局與模擬 Layout and Simulation of High Frequency Circuits 類比積體電路設計與模擬 Analog Integrated Circuits: Design and Simulation 半導體元件及物理 Semiconductor Components and			3 3 3 3	3 3 3						
	路領域 Solid state and integra ted	VLSI Design 表面工程 Surface Engineering 半導體量測技術 Semiconductor Measurement Technology 太陽能技術 Technology of solar energy 通訊網路積體電路設計 Communications Network Integrated Circuit Design 高頻電路佈局與模擬 Layout and Simulation of High Frequency Circuits 類比積體電路設計與模擬 Analog Integrated Circuits: Design and Simulation 半導體元件及物理			3 3 3 3	3 3 3 3						
總計 Tota	路領域 Solid state and integra ted circuit	VLSI Design 表面工程 Surface Engineering 半導體量測技術 Semiconductor Measurement Technology 太陽能技術 Technology of solar energy 通訊網路積體電路設計 Communications Network Integrated Circuit Design 高頻電路佈局與模擬 Layout and Simulation of High Frequency Circuits 類比積體電路設計與模擬 Analog Integrated Circuits: Design and Simulation 半導體元件及物理 Semiconductor Components and	39		3 3 3 3	3 3 3 3		15		3		105

- 一、畢業總學分30學分,學位論文6學分,專業選修24學分(包含6學分可選修非本系所開設之課程),必須滿足本學系修讀規定。
- The total number of credits for graduation is 30 credits, 6 credits for dissertation, and 24 credits for Professional Electives (including up to 6 credits from outside the 二、「專題討論(一)~(四)」為在其修業期間每學期必修0學分1小時之課程。
  - "Seminar (I) ~ (IV)" is a compulsory course of 0 credits and 1 hour per semester during the study period.
- 三、碩班課程皆與學士班四年級合開。
  - The Master's courses is co-taught with the fourth year of the Bachelor's courses.
- 四、表列選修科目為預定科目,將視實際需要而調整。
  - Elective courses listed are tentative and may be adjusted according to actual circumstances.
- 五、專題討論(一)及(二)以指導教授參與的專長組別為主。
  - Seminar I and II focused on the expertise groups in which the supervising professor participated.
- 六、研究生須於申請學位考試當學期修得學位論文。

Students must complete their Master's Thesis during the semester they apply for the degree examination.