

114學年度日間部半導體與光電科技系國際學生產學合作專班課程規劃表(春季班)

學年度		114		115		學年度		115		116		學年度		116		117	
科目		FEB 2025		SEP 2025		科目		FEB 2026		SEP 2026		科目		FEB 2027		SEP 2027	
		學分	時數	學分	時數			學分	時數	學分	時數			學分	時數	學分	時數
校必修	體育	2	2	2	2	校必修					校必修	科技英文(三)(四)	2	2	2	2	
	科技英文(一)(二)	2	2	2	2							台灣社會	2	2			
	華語輔導	0	5									台灣藝術			2	2	
	漢語拼音發音練習	1	2														
	華語聽力練習	1	2														
	華語會話練習	1	2														
	華語閱讀與理解	1	2														
	華語寫作練習	1	2														
	華人文學			3	3												
	華人文化			3	3												
院必修	台灣文化			2	2	院必修					院必修						
	台灣生活與法律			2	2												
	小計	9	19	14	14		小計	0	0	0		0	小計	4	4	4	4
專業必修	物理	3	3			專業必修	產業實務實習	9	32	9	32	專業必修	近代科學導論	3	3		
	應用數學	2	2								半導體材料與元件		3	3			
	電路學	2	2								電子學實驗(二)		3	3			
	半導體與光電導論	2	2								雷射工程				3	3	
	電腦資料處理			3	3						光電實驗				3	3	
	電子學			3	3						半導體製程技術				3	3	
	電子學實驗(一)			3	3												
	幾何光學			3	3												
						</											

學年度	科目	117		118	
		FEB 2028	SEP 2028	FEB 2028	SEP 2028
校必修	體育	2	2	2	2
	科技英文(一)(二)	2	2	2	2
	華語輔導	0	5		
	漢語拼音發音練習	1	2		
	華語聽力練習	1	2		
	華語會話練習	1	2		
	基礎閱讀與理解	1	2		
	華語寫作練習	1	2		
	華人文學			3	3
	華人文化			3	3
院必修	台灣文化			2	2
	台灣生活與法律			2	2
	小計	0	0	0	0
專業必修	物理	3	3		
	應用數學	2	2		
	電路學	2	2		
	半導體與光電導論	2	2		
	電腦資料處理			3	3
	電子學			3	3
	電子學實驗(一)			3	3
	幾何光學			3	3
	小計	0	0	0	0
專業選修	產業實務實習(三)(四)	9	32	9	32
	實務專題	3	3		
	太陽光電技術	3	3		
	光電感測工程	3	3		
	色彩學	3	3		
	人工智慧深度學習	3	3		
	圖控程式設計	3	3		
	Python程式應用	3	3		
	python與機器學習	3	3		
	生成式人工智慧與應用	3	3		
專業選修	光譜分析	3	3		
	實務專題			3	3
	光電創意設計			3	3
	奈米生醫光電技術			3	3
	平面顯示器技術			3	3

【注意事項】

1. 最低畢業學分：128 學分，含必修：_90_，選修_38_學分(本系至少_32_學分，其餘可跨系)。
2. 依本校「學生基本能力與畢業門檻實施辦法」實施。
3. 校外實習課程：產業實務實習(一)(二)(三)(四)，一學分至多80小時校外實習課程，產業實務實習(一)、(二)實際實習時數每週32-36小時，產業實務實習(三)(四)實際實習時數每週32-40小時。
3. 表列專業選修課程，得依實際情況進行調整。
4. 本表建立於114年_02_月_19_日。



半導體系課程
規劃委員1

半導體與光電科技系
系主任陳炳茂

半導體學院
院長張合

**MUST Curriculum Planning for Undergraduate Students of Academic Year 2026-2029,
Department of Semiconductor and Electro-Optical Technology**

Year		114		115		Year		115		116		Year		116		117	
		FEB 2026		SEP 2026				FEB 2027		SEP 2027				FEB 2028		SEP 2028	
Course		Cr.	hr.	Cr.	hr.	Course		Cr.	hr.	Cr.	hr.	Course		Cr.	hr.	Cr.	hr.
MUST Core Required Courses	Physical Education	2	2	2	2	MUST Core Required Courses						MUST Core Required Courses	Technical English(III)(IV)	2	2	2	2
	Technical English(I)(II)	2	2	2	2								Taiwanese Society	2	2		
	Chinese tutoring	0	5										Taiwanese Art			2	2
	Chinese Pinyin Pronunciation Practice	1	2														
	Chinese Listening Practice	1	2														
	Chinese Conversation Practice	1	2														
	Chinese Reading and Comprehension	1	2														
	Chinese Writing Practice	1	2														
	Chinese Literature			3	3												
	Chinese Culture			3	3												
School Professional Required Courses	Taiwanese Culture			2	2	School Professional Required Courses						School Professional Required Courses					
	Taiwan Life and Law			2	2												
	Subtotal	9	19	14	14		Subtotal	0	0	0	0		Subtotal	4	4	4	4
													Ethics for Engineers			2	2
	Subtotal	0	0	0	0		Subtotal	0	0	0	0		Subtotal	0	0	2	2
compulsory courses	Physics	3	3			compulsory courses	Lab of Property Practice	9	32	9	32	compulsory courses	Introduction to Modern Science	3	3		
	Applied Mathematics	2	2										Semiconductor Material and Device	3	3		
	Basic Circuit Theory	2	2										Electronics Lab(I)	3	3		
	Introduction to Semiconductor and Photonics	2	2										Laser Engineering			3	3
	Computer Data Processing			3	3								Optoelectric Lab			3	3
	Electronics Circuits			3	3								Semiconductor Manufacturing Technology			3	3
	Electronics Lab(I)			3	3												
	Geometrical Optics			3	3												
	Subtotal	9	9	12	12		Subtotal	9	32	9	32		Subtotal	9	9	9	9
													Certification of Solid Design CAD and License Counseling	3	3		
Elective Courses	Vacuum Technology			2	2	Elective Courses	Material Science and Engineering	2	2			Elective Courses	Optical Thin Film and Coating Technology	3	3		
	Introduction to Bio-Medical Engineering			2	2		Introduction to Computers and Programming	2	2				Technology Management	3	3		
	Engineering Applied Mathematics			2	2		Solid State Lighting	2	2				Photonics applications	3	3		
	Introduction and Application of Artificial Intelligence			3	3		Thin Film Technology	2	2				Thin Film Technology	3	3		
	Introduction to Semiconductor Materials Industry			3	3		Vision optics	2	2				Semiconductor inspection technology	3	3		
	Material Science and Engineering			2	2		Micro-computer Application	3	3				Semiconductor Manufacturing Equipment	3	3		
							Mobile Computing Practice	3	3				Certification of Solid Design CAD	3	3		
							App Programming	3	3				Nanomaterials	3	3		
							Practical Vacuum Technology	3	3				Data Science	3	3		
							Surface Engineering and AI Assistance	3	3				Optoelectronic Device and Application			3	3
Elective Courses						Elective Courses	Introduction of Flat Panel Displays	3	3			Elective Courses	Solar Photovoltaic Technology			3	3
							CAD of Solid Design			2	2		Computer-Assisted Design of Optical Thin Films			3	3
							Introduction to Artificial Intelligence			2	2		Computer-Aided Optical System Design			3	3
							Engineering statistics			2	2		Digital Logic Design			3	3
							Chromatics			2	2		Python Application			3	3
							Light - Emitting - Diode Technology			2	2		Memory Device Technology			3	3
							Measurement of LEDs			2	2		Semiconductor Lab			3	3
							Solar Photovoltaic Technology			2	2		Semiconductor Packaging Process and Equipment			3	3
													Semiconductor Manufacturing Equipment			3	3
													CAD of Solid Certification			3	3
Elective Courses						Elective Courses						Elective Courses	Semiconductor Materials and Applications			3	3
													Photonic Biomedical Engineering			3	3
													Computer-Assisted lighting system design			3	3
													Optical Factory			3	3
													Silicon Nano-device Detection and Analysis			3	3
													Certification of Solid Design CAD			3	3
													Semiconductor Manufacturing Technology			3	3
													Machine Learning			3	3
													Smart Industry and Manufacturing			3	3

Year		117		118	
		FEB 2029		SEP 2029	
Course		Cr.	hr.	Cr.	hr.
MUST Core Required Courses					
	Subtotal	0	0	0	0
School Professional Required Courses					
	Subtotal	0	0	0	0
compulsory courses					
	Subtotal	0	0	0	0
Elective Courses	Lab of Property Practice(III)(IV)	9	32	9	32
	Project of Optoelectronics	3	3	3	3
	Solar Photovoltaic Technology	3	3		
	Optoelectronic Detection Engineering	3	3		
	Chromatics	3	3		
	Artificial Intelligence-Deep Learning	3	3		
	Labview Programming Design	3	3		
	Python Program Application	3	3		
	Machine Learning with Python	3	3		
	Generative AI and Applications	3	3		
	Spectral analysis	3	3		
	Creative Design in Optoelectronics			3	3
	Nano Bio-Photonics			3	3
	Technology of Organic Light-emitting Diode			3	3

Cr./hr.=Credit/hour

Remarks:

1. Minimum credits required for graduation: 128 credits including 90_ compulsory credits, and at least 38_ elective credits(including the interdepartmental elective credits).
2. For off-campus internship courses, please follow the relevant implementation regulations.
3. Off-campus practice courses : Lab of Property Practice(III)(IV), 1 credit requires no more than 80 hours. The actual internship hours for Lab of Property Practice(III) are 38 to 40 hours per week, and the actual internship hours for Lab of Property Practice (III) and (IV) are 32 to 40 hours per week.
4. The elective courses listed in the tables are subject to adaptation when necessary.
5. This form created in _02.19 2025_.

