CTBC University of Science and Technology

Department of Semiconductor Engineering

for Four-Year Bachelor's Degree Program-Day Division(Effective from Fall 2025)

		for rour-year Bachelor's Degre	_	學年	•	學年		學 年	第四	學年	
科 目 名 稱 Subject				ool year		ool year		ool year	4th school year		
				下學期 2nd semester	上學期 1st semester	下學期 2nd semester	上學期 1st semester	下學期 2nd semester	上學期 1st semester	下學期 2nd semester	
			學分 時數 Credits Hours								
		中文閱讀與表達(1)(2) Chinese Reading and Expression(1)(2)	2/ 2	2/ 2							
	通識 基礎 必修 Required General	服務教育與大學社會責任(1)(2) Service Education and University Social Responsibility (1)(2)	1/ 1	1/ 1							
		體育(1)(2)(3) Physical Education(1)(2)(3)	2/ 2	2/ 2	2/ 2						
	Education Courses	多元語言 Multilingual Learning			2/ 2						
		英文聽力與閱讀(1)(2) English Listening and Reading(1)(2)			2/ 2	2/ 2					
		小 計 Subtotal	5/ 5	5/ 5	6/ 6	2/ 2	0/ 0	0/ 0	0/ 0	0/ 0	
		健康與生活領域 Health and Life category	2/ 2	2/ 2							
		創意思考與訓練領域 Creative Thinking and Training category		2/ 2							
校訂 課程 Stipulated	通識博雅	跨域探索領域(1) Liberal Arts and Interdisciplinary Learning category(1)			2/ 2						
Courses	必修 Required	資訊與智慧生活領域 Information and Smart Life category			2/ 2						
	Liberal Arts Courses	生命與永續領域 Life and Sustainability category				2/ 2	2/ 2				
		人文與社會領域 Humanities and Social Sciences category					2/ 2				
		藝術與美感領域 Art and Beauty category						2/ 2			
		小 計 Subtotal	2/ 2	4/ 4	4/ 4	2/ 2	4/ 4	2/ 2	0/ 0	0/ 0	
	一般 選修 General Elective Courses	全民國防教育軍事訓練(1)(2)(3)(4) National Defense Education and Military Training (1)(2)(3)(4)	2/ 2	2/ 2	2/ 2	2/ 2					
		跨域探索領域(2)(3)(4)(5) Liberal Arts and Interdisciplinary Learning category(2)(3)(4)(5)				2/ 2	2/ 2	2/ 2	2/ 2		
		小 計 Subtotal	2/ 2	2/ 2	2/ 2	4/ 4	2/ 2	2/ 2	2/ 2	0/ 0	
		數學演練習作 Math Drills	2/ 2								
		生活物理 Life Physics	2/ 2								
		電腦軟體應用 Computer Software Application		2/ 2							
	院必修 課程 Paguired	職場倫理 Employment Ethics		2/ 2							
	Required College Courses	創意實作 Innovations and Implementations			2/ 2						
	Courses	半導體概論 Introduction of Semiconductor			2/ 2						
		簡報製作與表達 Presentation and Expression				2/ 2					
		小 計 Subtotal	4/ 4	4/ 4	4/ 4	2/ 2	0/ 0	0/ 0	0/ 0	0/ 0	
		機器學習實務 Machine Learning Practice	2/ 2								
專業必修		計算機概論 Introduction of Computers	2/ 2								
課程 Professional		生成式AI基礎與應用 Generative AI Foundations and Applications		2/ 2							

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				學年 ool veer		學 年 ool year		學年 ool veer	第四學年 4th school year		
科目名稱			1st school year 上學期 下學		上學期	下學期	上學期			下學期	
		Subject	1st semester 學分 時數 Credits Hours	2nd semester 學分 時數 Credits Hours	1st semester 學分 時數 Credits Hours	2nd semester 學分 時數 Credits Hours	1st semester 學分 時數 Credits Hours	2nd semester 學分 時數 Credits Hours	1st semester 學分 時數 Credits Hours	2nd semester 學分 時數 Credits Hours	
Required		數位邏輯	Credits Hours	2/ 2	Credits Hours						
Courses		Digital Logic Design 半導體元件									
		Semiconductor Devices			2/ 2						
		AI基礎理論與程式設計 AI Basic Theory and Programming			2/ 2						
		電路學				2/ 2					
		Circuits				2/ 2					
		單晶片原理與應用 Principle and Application of Single Chip				2/ 2					
		電子電路實務					2/ 2				
		Electronics Circuit Practice 電子學					- / -				
		Electronics					2/ 2				
		工業安全與衛生 Industrial Safety and Hygiene						2/ 2			
		半導體製程概論						2/ 2			
		Introduction to Semicondurtor Process						Z/ Z			
		實務專題(1)(2)(3)(4) Project(1)(2)(3)(4)			2/ 2	2/ 2	2/ 2	2/ 2			
		小 計 Subtotal	4/ 4	4/ 4	6/ 6	6/ 6	6/ 6	6/ 6	0/ 0	0/ 0	
		半導體產業介紹 Introduction to Semiconductor Industry	2/ 2								
		工業4.0概論	2/ 2								
		Industry 4.0 Introduction 數位邏輯實習	Z/ Z								
		製工運料員首 Digital Logic Design Practice 丰等體員務訓練入門		2/ 2							
		Introduction to Semiconductor Practical		2/ 2							
		Turinina 電子技術實務 Electronic Technology Practice			2/ 2						
		工業配線實務 Industrial Wiring Pretice			2/ 2						
		電能科技概論 Electrical Energy Technology Introduction			2/ 2						
		半導體實務訓練初階			2/ 2						
		Semiconductor practical training 生成式AI建置			2, 2						
		生成式AI是直 Generative AI Implementation				2/ 2					
		半導體實務訓練進階 Advanced Semiconductor Practical Training				2/ 2					
		可程式控制真督 Programmable Logic Controller (PLC)				2/ 2					
		Programmatic Logic Controller (1 LC) Programmatic 單晶片實務									
		Single Chip Practice				2/ 2					
		電力電子學 Power Electronics					2/ 2				
		人工智慧實務應用					2/ 2				
		Practical Application of Artificial Intelligence 感測器原理與應用									
		Application and Theory of Sensor					2/ 2				
		半導體實務訓練高階 Semiconductor practical training advanced					2/ 2				
		電子及光電材料實務 Optp-electronic Materials Practice					2/ 2				
		半導體廠務技術 Semiconductor Factory Technology						2/ 2			
	選修課程 ssional	機電與能源實習						2/ 2			
rioles	ssional	Practice of Mechatronics and Energy						L			

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			學年		學年		學年	第四學年 4th school year		
科目名稱			1st school year 上學期 下學期		ool year 下學期	3rd sch 上學期	ool year 下學期	4th sch 上學期	ool year 下學期	
	Subject	上字朔 1st semester	ト子朔 2nd semester	上學期 1st semester	ト子朔 2nd semester	上字朔 1st semester	下子朔 2nd semester	上字朔 1st semester	ト子朔 2nd semester	
	J	學分 時數 Credits Hours	學分 時數 Credits Hours	學分 時數 Credits Hours	學分 時數 Credits Hours	學分 時數 Credits Hours	學分 時數 Credits Hours	學分 時數 Credits Hours	學分 時數 Credits Hours	
Elective	AI影像辨識						2/ 2			
Courses	AI Image Recognition						21 2			
	電力電子學實習 Power Electronics Practice						2/ 2			
	IC產業介紹與應用 IC Industry Introduction and Application						2/ 2			
	AI大數據分析 AI Big Data Analytics							2/ 2		
	工程專利分析及應用 Engineering Patent Analysis and Application							2/ 2		
	工程英文							2/ 2		
	Engineering English 半導體無塵室技術							2/ 2		
	Semiconductor Clean Room Technology									
	雲端資料庫程式設計 Cloud Database Programming							2/ 2		
	智慧家電控制系統 Smart Home Appliance Control System							2/ 2		
	產業校外實習 Industrial Off-Campus Internship							9/		
	AI物聯網應用 AI IoT Applications								2/ 2	
	半導體製造管理 Semiconductor Manufacturing Management								2/ 2	
	太陽能光電技術 Solar Photovoltaic Technology								2/ 2	
	辦公室自動化 Office Automation								2/ 2	
	資訊科技應用趨勢 IT Application Trends								2/ 2	
	電腦輔助電路設計 Computer Aided Circuit Design								2/ 2	
	學期校外實習 Off-Campus Semester Internship								9/	
	校內實習(1)(2)(3)(4)(5)(6) On-Campus Internship(1)(2)(3)(4)(5)(6)			2/ 2	2/ 2	2/ 2	2/ 2	2/ 2	2/ 2	
	小 計 Subtotal	4/ 4	4/ 4	10/ 10	10/ 10	12/ 12	12/ 12	23/ 14	23/ 14	
擬開最低選修學分 Proposed Minimum Elective Credits	合 計 Total	2/ 2	2/ 2	2/ 2	6/ 6	6/ 6	8/8	10/ 10	10/ 10	
			114年07	月08日 校	課程發展委	-員會會議	通過Amend	ed Date: 2	2025-07-08	

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		第一	學年			第二	學年		第三學年				第四學年			
	1:	st sch	ool ye	ar	2n	d sch	ool ye	ar	3rd school year				4th school year			ar
科目名稱	上學	早期	下点	期	上學期 下學		早期	上學期		下學期		上學期		下學期		
Subject	1st semester 2nd semester		1st semester 2nd semester		1st semester 2nd semester		1st semester 2nd s		2nd ser	mester						
-	學分 Credits			時數 Hours												

一、畢業總學分至少128學分:

The total number of credits completed to be eligible to graduate shall not be less than 128 credits.

1.校訂必修36學分(含通識基礎必修18學分、通識博雅必修18學分)。

The stipulated compulsory credits shall be 36 credits.(18 credits for required general education courses, and 18 credits for required liberal arts courses.)

2.專業必修46學分(院必修14學分、系必修32學分)。

The professional compulsory credits shall be 46 credits.(14 credits for required college courses, and 32 credits for required department courses.)

3.系專業選修至少34學分。

The professional elective credits shall be not less than 34 credits.

4.跨系選修至多12學分。

The number of inter-department elective credits shall be up to 12 credits.

※「微學分課程」最多採計12學分。

The number of 'Micro-Credit Courses' credits shall be up to 12credits.

二、畢業門檻 Graduation Threshold:

1.學生於修業年限內,應修畢「校訂必修」、「專業必修」、「系專業選修」、「跨系選修」共計128學分。

Students are required to complete a total of 128 credits of "Stipulated Compulsory Course", "Professional Compulsory Course",

"Department Professional Elective Course", and "Inter-College Elective Courses " within their academic years.

2.系專業能力門檻(依中信科技大學半導體工程系畢業門檻實施要點辦理)。

備註 Note Department Professional Threshold (CTBC University of Science and Technology Department of Semiconductor Engineering of Tutoring Students to Get English Proficiency Certificates).

3.英文能力門檻(依中信科技大學輔導學生取得英檢證照實施辦法辦理)。

English Proficiency Threshold (CTBC University of Science and Technology Regulations of Tutoring Students to Get English Proficiency Certificates)

三、校訂課程 Stipulated Courses:

1.校訂課程不須依先後順序修課,不得互抵者,包括「中文閱讀與表達(1)(2)、英文聽力與閱讀(1)(2)、體育(1)(2)(3)」課程。 Stipulated courses are not required to be taken in sequence and the credits shall not be mutually transferred, including 「Chinese Reading and Expression(1)(2), English listening and reading (1)(2), and physical education (1)(2)(3)」 courses.

2.校訂課程不須依先後順序修課,得互抵者,包括「服務教育與大學社會責任(1)(2)」、「健康生活領域」、「跨域探索領域 (1)(2)(3)(4)(5)(6)」、「生命與永續領域」課程。

Stipulated courses are not required to be taken in sequence, and those that may be mutually substituted include \lceil Service Education and University Social Responsibility (1)(2) \rfloor , \lceil Health and Life category \rfloor , \lceil Liberal Arts and Interdisciplinary Learning category (1)(2)(3)(4)(5(6) \rfloor , and \lceil Life and Sustainability category \rfloor courses.

3.校訂課程不須依先後順序修課,包括「全民國防教育軍事訓練(1)(2)(3)(4)」課程。

Stipulated courses are not required to be taken in sequence, including National Defense Education (1)(2)(3)(4).

四、專業課程 Professional Courses:

1.「實務專題(1)(2)(3)(4)」課程應依先後順序修課,得互抵。

 $\lceil \text{Project}(1)(2)(3)(4) \rfloor$ shall be taken in sequence and may complement each other.

2.「校內實習(1)(2)(3)(4)(5)(6)」課程不須依先後順序修課。

 \lceil On-Campus Internship(1)(2)(3)(4)(5)(6) \rfloor are not required to be taken in sequence.