

Bachelor Program in Department of Artificial Intelligence (For Y110 enrolled students)

必修 Required/Elective	科目名稱 Subject	一		科目名稱 Subject	二		科目名稱 Subject	三		科目名稱 Subject	四	
		上	下		上	下		上	下		上	下
必修 Required	專 微積分(1)(2) Calculus (I)(II)	3	3	人工智慧 Artificial Intelligence	3	深度学习 Deep Learning	3	專題研究(3) Capstone (III)	1			
		3	3	資料結構與演算法(1) Data Structure and Algorithms (I)	3	作業系統 Operating System	3	校外實習 Intern	4			
		3		線性代數 Linear Algebra	3	資料探勘 Data Mining						
	素 離散數學 Discrete Mathematics	3		資料結構與演算法(2) Data Structure and Algorithms (II)	3	平行程式設計 Parallel Programming Design	3					
				機率與統計 Probability and Statistics	3	專題研究(I) Capstone (I)	0					
				直譯式程式語言 Interpreted Programming Languages	3	專題研究(2) Capstone (II)	1					
						數值分析 Numerical Analysis	3					
選修 Elective	共同選修 普通物理學(1)(2) General Physics (I)(II)	3	3									
		1	1	普通物理學實驗(1)(2) General Physics Laboratory (I)(II)								
		2	2	普通生物學(1)(2) General Biology (I)(II)								
		1	1	普通生物學實驗(1)(2) General Biology Laboratory (I)(II)								
	學院共構課程					英語口說與報告(1) English Speaking and Reporting (I)	2	海外研讀 International Study Co	1			
						英語口說與報告(2) English Speaking and Reporting (II)	2					
	智慧醫療 Smart Healthcare			體學概論 Introduction to Omics	2	生物資訊學 Bioinformatics	2	量化大數據分析與繪圖 Big Data Analysis and Visualization	2			
				放射診斷器材學 Diagnostic Radiology Instrumentation	3	人工智慧在自然語言處理與應用 Artificial Intelligence in Natural Language Processing and Applications	3	生醫訊號分析 Biomedical Signal Analysis	3			
				資料庫系統設計 Database System Design	3	人工智慧講座 Artificial Intelligence Colloquium	1	電腦視覺 Computer Vision	3			
						醫學影像處理 Medical Image Processing	3	生物資訊分析 Bioinformatic Analysis	3			
						機器學習與其醫學應用 Machine Learning and Its Medical Applications	3	感測科學 Sensor Science	3			
								臨床資訊工程 Clinical Informatics	3			
								智慧醫療工程 Smart Healthcare Engineering	3			
								醫學影像系統 Medical Image System	3			
	智慧製造 Smart			網頁程式設計 Web Programming	3	決策分析 Decision Analysis	3	智慧聯網 Artificial intelligence & Internet of Things	3			
				資料庫系統設計 Database System Design	3	網路安全概論 Computer Network Security	3	智慧網宇實體系統 Intelligent Cyber-Physical System	3			
				應用統計學 Applied Statistics	3	軟體工程 Software Engineering	3	雲端系統 Cloud Systems	3			
				行動裝置程式設計 Mobile Device Application Programming	3	智慧工廠 Smart Factory	3	資安結構 Introduction to cybersecurity	3			
				智慧型機器人概論 Introduction to Intelligent Robotics	3	人工智慧在自然語言處理與應用 Artificial Intelligence in Natural Language Processing and Applications	3	區塊鏈技術基礎與應用 Blockchain technologies: Foundation and Applications	3			
						人工智慧講座 Artificial Intelligence Colloquium	1	感測科學 Sensor Science	3			
							臨床資訊工程 Clinical Informatics	3				
							電腦視覺 Computer Vision	3				
備註 Note	<p>1. 畢業學分：<b>128</b> 學分。 Graduation Credits: 128 credits.</p> <p>(1) 必修 <b>57</b> 學分(含校外實習必修 4 學分)。 Required Courses: 57 credits (including 4 credits for Intern).</p> <p>(2) 選修 <b>42</b> 學分： Elective Courses: 42 credits.</p> <p>a. 共同選修：【普通物理學(1)(2)+普通物理學實驗(1)(2)】與【普通生物學(1)(2)+普通生物學實驗(1)(2)】為必選二選一，且須修習通過。 Common Electives: Choose either (General Physics(I)(II) + General Physics Laboratory(1)(2)) or (General Biology(1)(2) + General Biology Laboratory(I)(II)), and must pass the selected option.</p> <p>b. 專業選修：專業選修分為「智慧醫療」與「智慧製造」二大領域，須至少選修 <b>30</b> 學分，其中一領域至少修習 <b>18</b> 學分。 Specialized Electives: Specialized electives are divided into two major fields, 'Smart Healthcare' and 'Smart Manufacturing'. Students are required to take a minimum of 30 credits, with a minimum of 18 credits in one of the fields.</p> <p>c. 其餘學分得選修本校非通識課程(體育及全民國防教育軍事訓練選修課程不列入)。 The remaining credits can be fulfilled by taking non-general education courses offered by the university (Physical Education and Military Training courses for National Defense Education are not included).</p> <p>(3) 通識課程：請詳見通識中心修課規定。 General Education Courses: Please refer to the regulations of the General Education Center for course requirements.</p> <p>a. 人工智慧概論 <b>1</b> 學分。 Introduction to Artificial Intelligence: 1 credit.</p> <p>b. 英文領域、核心、多元課程 <b>28</b> 學分。 English Field, Core, and Diversity Courses: 28 credits.</p> <p>2. 體育大一、大二必修 <b>1</b> 學分；全民國防教育軍事訓練大一必修 <b>0</b> 學分。 Physical Education Mandatory for Freshman and Sophomore Years: 0 credits.</p> <p>3. 【深耕學園】必修 <b>0</b> 學分，請詳見學務處深耕學園專區說明。 [Shengen Campus] is a mandatory course with 0 credits. Please refer to the Office of Academic Affairs for detailed information on the Shengen Campus program.</p> <p>4. 本校訂有英文畢業門檻，須達校訂標準方可畢業，請詳見語文中心規定。 The university has set an English graduation threshold. Graduation is contingent upon meeting the university's standards; please refer to the Language Center regulations for details.</p> <p>5. 「專題(2)」未通過需重修者，得以「專題(1)」抵修該課程。 Those who fail 'Capstone (II)' may use 'Capstone (I)' as a substitute for the course.</p>											