

長庚大學人工智慧學系大學部必選修科目表 (112學年度入學學生適用)

113.11.03修訂

Bachelor Program in Department of Artificial Intelligence (For Y112 enrolled students)

必選修 E/C	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	離散數學 Discrete Mathematics	3		線性代數 Linear Algebra	3		專題研究(1)(2) Capstone (1)(2)	0	1	專題研究(3) Capstone (3)	1	
	程式設計 Computational Thinking and Programming	3		機器學習 Machine Learning	3		電腦視覺 Computer Vision	3				
	智慧計算導論 Introduction to Intelligent Computing	3		大腦與認知科學 Brain and Cognitive Science	3		資料探勘 Data Mining	3				
	機率與統計 Probability and Statistics		3	資料結構 Data Structure	3		自然語言處理 Natural Language Processing		3			
	資訊安全 Information Security	3		深度學習 Deep Learning		3	專題演講 Seminar	1				
	AI程式語言 Programming Language for AI		3	演算法 Algorithms		3						
	普通物理學 General Physics	2										
	有機化學 Organic Chemistry	2										
	普通生物學 General Biology		2									
	微積分(1)(2) Calculus ( I )(II)	3	3									
選 修  Elective				行動應用程式開發 Mobile Application Development		3	人體疾病概論 Introduction to Human Diseases	2		實習(1)(2) Internship (1)(2)	4	4
				Web應用程式開發 Web Application Development		3	資料科學 Data Science	3		海外研讀 International Study Course	1	
				計算機網路 Computer Networks		3	作業系統與雲端計算 Operating System & Cloud Computing	3		基因組數據科學 Genomic Data	3	
							體學概論 Introduction to Omics	2		虛擬與擴充實境 Virtual and Augmented Reality	3	
							智慧物聯網 Artificial Intelligent & Internet of Things	3		智慧網宇實體系統 Intelligent Cyber-Physical System	3	
							量子計算導論 Introduction to Quantum Computing	3		機器學習專題 Special Topics on Machine Learning	3	
							平行程式設計 Parallel Programming Design	3		多代理人系統 Multi-agent System	3	
										生物資訊分析 Bioinformatic Analysis	3	
										量子機器學習 Quantum Machine Learning	3	
										臨床資訊工程 Clinical Informatics		3
										健康資料管理與分析 Health Data Management and Analysis		3
										醫學影像處理 Medical Image Processing		3
										深度學習專題 Special Topics on Deep Learning		3
										深度學習應用 Applications of Deep Learning		3
										語音處理 Speech Processing		3
										資訊檢索與擷取 Information Retrieval and Extraction		3
										進階人工智慧程式設計 Advanced AI Programming		3
										人工智慧學術英文技巧 Academic Skills for AI Scientists		3

<b>備註</b>  <b>Note</b>	<p>1. 畢業學分：畢業學分：128 學分。 Graduation Credits: 128 credits.</p> <p>(1) 必修 60 學分。 Required Courses: 60 credits.</p> <p>(2) 選修 40 學分，必須至少修本系開設選修課程達 30 學分。 Elective Courses: 40 credits, with a minimum of 30 credits from elective courses offered by the department.</p> <p>(3) 通識課程：請詳見通識中心修課規定。英文領域、核心、多元課程29學分，其中必修「AI程式語言」選為抵免多元-運算思維領域「人工智慧概論」1學分後，共28學分。 General Education Courses: Please refer to the regulations of the General Education Center. In the English field, Core, and Diverse Curriculum, 29 credits are required. After completing the mandatory "AI Programming Language" course, which is credited towards the Diverse - Computational Thinking domain, the total becomes 28 credits.</p> <p>2. 體育大一、大二必修 0 學分。 Physical Education is required for freshmen and sophomores with 0 credits.</p> <p>3. 大學部學生每學期修習學分上限25學分，下限12學分。 Undergraduate students have a credit limit of 25 credits and a minimum of 12 credits per semester.</p> <p>4. 【深耕學園】必修 0 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>5. 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>
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