

長庚大學人工智慧研究所碩士班必選修科目表
Master's Program Required Courses for Artificial Intelligence at CGU (For Y112 enrolled students)
(112學年度入學學生適用) 112.11.10修訂

必選修 Required/E lective	科目名稱 Subject	一		科目名稱 Subject	二		
		上	下		上	下	
必 修 Required	人工智慧及機器學習導論 Introduction to AI and Machine Learning	3					
	電腦視覺 Computer Vision	3					
	自然語言處理 Natural Language Processing		3				
	深度學習 Deep Learning		3				
	科技論文討論 (1) Technical Literature Survey (1)	1					
	科技論文討論 (2) Technical Literature Survey (2)		1				
選 修 Elective	地理資訊系統 Geospatial Information Systems	3		學術 組 (一 般 論 文) 企 業 (實 習) 組	專題研究(1) (2) Independent Study (1)(2)	2	2
	量子機器學習 Quantum Machine Learning	3			科技論文討論 (3) Technical Literature Survey (3)	1	
	生物資訊分析 Bioinformatic Analysis	3			科技論文討論 (4) Technical Literature Survey (4)		1
	智慧醫療工程 Intelligence Medicine Engineering	3					
	人工智慧與音樂導論 Introduction of AI and Musics	3					
	多代理人系統 Multiagent System	3					
	資安結構 Introduction to Cybersecurity	3					
	智慧物聯網 AI and Internet of Things		3				
	AI晶片設計 AI IC Design		3		專題研究(1) (2) Independent Study (1)(2)	2	2
	醫學影像處理 Medical Image Processing		3		科技論文討論 (3) Technical Literature Survey (3)	1	
	區塊鏈技術基礎與應用 Blockchain Technologies: Foundation and Application		3		科技論文討論 (4) Technical Literature Survey (4)		1
	臨床資訊工程 Clinical Informatics		3		企業實習 (1) Industrial Practical Training (1)	9	
	機器人學習 Robot Learning		3		企業實習 (2) Industrial Practical Training (2)		9
	人工智慧與文學導論 Introduction to Artificial Intelligence and Literature		3		複合式企業實習 (1) Compound Industrial Practical Training (1)	6	
	智慧網宇實體系統 Intelligent Cyber-Physical Systems		3		複合式企業實習 (2) Compound Industrial Practical Training (2)		6
	量子計算導論 Introduction to Quantum Computing		3				
	數位醫學影像處理 Digital Medical Image Processing		3				
	備註 Note	<p>一、一般論文組：畢業學分35學分 Academic Track: Graduation Credits: 35 credits (1)必修14學分 Required Courses: 14 credits (2)選修15學分 Elective Courses: 15 credits (3)論文6學分（通過學位考試並繳交通過審核論文後給予）Thesis: 6 credits (awarded upon passing the degree examination and</p> <p>二、企業實習組：畢業學分35學分 Industrial Professional Track (1)必修14學分 Required Courses: 14 credits (2)選修21學分，必須包含選讀「企業實習(1)、(2)」(共18學分)或「複合式企業實習(1)、(2)」(共12學分)。「企業實習(1)、(2)」不得與「複合式企業實習(1)、(2)」混修。選讀企業實習課程，皆須經過授課教師同意方可選修。 Elective Courses: 21 credits, including the mandatory selection of either "Industrial Practical Training (1)(2)" (total 18 credits) or "Compound Industrial Practical Training(1)(2)" (total 12 credits). Mixing "Industrial Practical Training(1)(2)" and "Compound Industrial Practical Training(1)(2)" is not allowed. Selection of internship courses requires approval from the instructor. (3)論文得以專業實務報告代替，並通過學位考試。A professional practical report may be substituted for the thesis, subject to passing</p> <p>三、須達英文畢業門檻方可畢業： Graduation is contingent upon meeting the English graduation threshold. 1. 全民英檢中高級初試及格。 Passing the High-Intermediate levels of the General English Proficiency Test (GEPT) is required. 2. 托福500分(含)以上。 TOEFL PBT score of 500 or above is required 3. 電腦托福173分(含)以上；網考托福61分(含)以上。 TOEFL CBT score of 173 or above is required, TOEFL IBT score of 61 or above is required 4. 外語能力測驗(FLPT-English)平均成績65分(含)以上。 An average score of 65 or above on the Foreign Language Proficiency Test for English (FLPT-English) is required. 5. IELTS 5級(含)以上。 IELTS score of 5 or above is required 6. 多益測驗(TOEIC)600分(含)以上。 TOEIC score of 600 or above is required. 7. 劍橋領思英語檢測(Linguaskill) 145分(含)以上。 Linguaskill score of 145 or above is required. 8. 認可就讀大學時期取得上述符合規定之認證。 Recognition is given to certifications obtained during the university period that meet the aforementioned requirements. 9. 如未取得上述則依本校語文中心「英文畢業門檻實施辦法」所載標準辦理。 If the above certifications are not obtained, the procedures will be conducted in accordance with the standards outlined in the English Graduation Threshold Implementation Measures of our university's Language Center.</p> <p>四、經指導教授同意可選修他系所碩士班課程6學分，擬選修他系課程學生填妥「選修他系課程申請表」，完成申請程序後送學系核備。 With the approval of the advisor, students may take up to 6 credits of courses from other master's programs. Students intending to take courses from other departments should complete the "Application for Taking Courses from Other Departments" form, follow the application procedure, and submit it to the department for approval.</p>					