Curriculum of the Master Program at the Department of Department of Artificial Intelligence

Chang Gung University(For students admitted in Fall, 2024)   Oct 31, 2025 Revision

Required / Elective	Subject	1st Y		Subject	2nd Y	
		1st Sem.	2nd Sem.		1st Sem.	2nd Sem.
Required	Introduction to AI and Machine Learning	3				
	Computer Vision	3				
	Natural Language Processing		3			
	Deep Learning		3			
	Technical Literature Survey (1)	1				
	Technical Literature Survey (2)		1			
Elective	Quantum Machine Learning	3		Independent Study(1) (2) 【Academic Track】	2	2
	Bioinformatic Analysis	3		Technical Literature Survey(3)	1	
	Intelligence Medicine Engineering	3		Technical Literature Survey(4)		1
	Introduction to AI and Musics	3				
	Artificial Intelligence in Natural Language Processing and Applications		3			
	Multiagent Systems		3			
	Generative Artificial Intelligence	3				
	Introduction to Cybersecurity	3				
	Intelligent Cyber-Physical Systems	3				
	AI and Internet of Things		3			
	AI IC Design		3	Independent Study(1) (2) 【Industrial Professional Track】	2	2
	Medical Image Processing		3	Technical Literature Survey(3)	1	
	Blockchain Technologies: Foundation and Application	3		Technical Literature Survey(4)		1
	Clinical Informatics		3	Industrial Pratical Training (1)	9	
	Robot Learning		3	Industrial Pratical Training (2)		9
	Introduction to Artificial Intelligence and Literature		3	Compound Industrial Pratical Training (1)	6	
	Introduction to Quantum Computing		3	Compound Industrial Pratical Training (2)		6
	Digital Medical Image Processing		3			
	Advanced AI Programming		3			
	Academic Skills for AI Scientists		3			
	Natural Language Processing and Applications		3			
Note	1. 【Academic Track】Graduation Credits: 35 credits (1) Required Courses: 14 credits (2) Elective Courses: 15 credits (3) Thesis: 6 credits (awarded upon passing the degree examination and submitting a thesis that passes the review) 2. 【Industrial Professional Track】Graduation Credits: 35 credits (1) Required Courses: 14 credits (2) Elective Courses: 21 credits, including the mandatory selection of either "Industrial Pratical Training (1)(2)" (total 18 credits) or "Compound Industrial Pratical Training (1)(2)" (total 12 credits). Mixing "Industrial Pratical Training (1)(2)" and "Compound Industrial Pratical Training (1)(2)" is not allowed. Selection of internship courses requires approval from the instructor. (3) A professional practical report may be substituted for the thesis, subject to passing the degree examination. 3. Graduation is contingent upon meeting the English graduation threshold. (1) Graduation is contingent upon meeting the English graduation threshold. For detailed regulations, please refer to the "Implementation Measures for English Graduation Threshold" provided by the Language Center of CGU. (2) Those who obtained certificates before enrollment can submit them directly to the department for approval. 4. 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. 5. The elective course "Natural Language Processing and Applications" in this department can be counted as credits for "Natural Language Processing". 6. Use "Introduction to Intelligent Technologies" as a substitute course for "Introduction to AI and Machine Learning." 7. Credits earned from taking the "Technical Literature Survey" course offered in the 114 academic year may be recognized as equivalent to the courses "Technical Literature Survey (1)" and "Technical Literature Survey (2)" from the 113 academic year.