Curriculum of the Bachelor Program at the Department of Department of Artificial Intelligence
Chang Gung University(For students admitted in Fall, 2023)

October 31, 2025 Revision

Required / Elective	Subject (1st Y)	1st Sem.	2nd Sem.	Subject (2nd Y)	1st Sem.	2nd Sem.	Subject (3rd Y)	1st Sem.	2nd Sem.	Subject (4th Y)	1st Sem.	2nd Sem.
Required	Discrete Mathemetics	3		Linear Algebra	3		Capstone (1)(2)	0	1	Capstone (3)	1	
	Computational Thinking and Programming	3		Machine Learning	3		Computer Vision	3				
	Introduction to Intelligent Computing	3		Brain and Cognitive Science	3		Data Mining	3				
	Probability and Statistics		3	Data Structure	3		Natural Language Processing and Applications		3			
	Information Security		3	Deep Learning		3	Seminar	1				
	Programming Language for AI		3	Algorithms	3							
	General Physics	2										
	Organic Chemistry	2										
	General Biology		2									
	Calculus (1) (2)	3	3									
Elective				Mobile Application Development		3	Introduction to Human Diseases	2		Internship (1)(2)	4	4
				Web Application Development	3		Data Science	3		International Study Course	1	
				Computer Networks		3	Operating System	3		Genomic Data	3	
							Introduction to Omics		2	Virtual and Augmented Reality	3	
							Parallel Programming Design		3	Intelligent Cyber-Physical System	3	
							Cloud Systems		3	Special Topics on Machine Learning	3	
										Multiagent Systems	3	
										Bioinformatic Analysis	3	
										Introduction to Quantum Computing	3	
										Quantum Machine Learning		3
										Clinical Informatics		3
										Health Data Management and Analysis		3
										Medical Image Processing	3	
										Special Topics on Deep Learning		3
										Applications of Deep Learning		3
										Speech Processing		3
										Information Retrieval and Extraction		3
										Generative Artificial Intelligence Applications		3
										Advanced AI Programming		3
										Academic Skills for AI Scientists		3
										Introduction to Cybersecurity		3
										Blockchain Technologies: Foundation and Application	3	

Note

1. Graduation Credits: **128** credits.

  (1) Required Courses: **60** credits.

  (2) Elective Courses: **40** credits, with a minimum of 30 credits from elective courses offered by the department.

  (3) 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.

2. Physical Education is required for freshmen and sophomores with 0 credits.

3. Undergraduate students have a credit limit of 25 credits and a minimum of 12 credits per semester (9 credits for seniors in their fourth year).

4. [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.

5. 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.

6. Students who wish to take "Quantum Machine Learning" must first complete "Introduction to Quantum Computing."

7. All elective courses offered by the Master's program can be counted as departmental elective credits.