

Chang Gung University(For students admitted in Fall, 2022)

Required / Elective		Subject	1st Y		2nd Y		Subject	3rd Y		Subject	4th Y		
			1st Sem.	2nd Sem.	1st Sem.	2nd Sem.		1st Sem.	2nd Sem.		1st Sem.	2nd Sem.	
Required	Professional	Calculus (1)(2)	3	3	Artificial Intelligence		3	Deep Learning	3		Capstone (3)	1	
		Introduction to Computer Science (1)(2)	3	3	Data Structure and Algorithms (1)	3		Operating System	3				
		Discrete Mathematics		3	Brain and Cognitive Science	3		Data Mining		3			
		General Physics	2		Database System Design		3	Parallel Programming Design		3			
		General Physics Laboratory	1		Linear Algebra	3		Capstone (1)	0				
		General Biology		2	Data Structure and Algorithms (2)		3	Capstone (2)		1			
		General Biology Laboratory		1	Probability and Statistics		3	Artificial Intelligence Colloquium	1				
					Interpreted Programming Languages	3		Numerical Analysis	3				
Elective	Academy Co-constructed Curriculum						English Speaking and Reporting (1)	2		International Study Course	1		
							English Speaking and Reporting (2)		2				
	Smart Healthcare				Bioinformatic Analysis	2		Bioinformatics		2	Big Data Analysis and Visualization	2	
					Introduction to Omics		2	Natural Language Processing		3	Biomedical Signal Analysis		3
					Diagnostic Radiology Instrumentation		3	Medical Image Processing		3	Computer Vision		3
								Machine Learning and Its Medical Applications		3	Internship		4
								Natural Language Processing and Applications			Bioinformatic Analysis		3
											Clinical Informatics		3
											Intelligence Medicine Engineering		3
											Medical Imaging Analysis and AI in Medical Diagnostics		3
											Pattern Recognition		3
	Smart Manufacturing				Web Programming		3	Decision Analysis		3	Artificial intelligence & Internet of Things		3
					Introduction to Intelligent Robotics		3	Computer Network Security		3	Intelligent Cyber-Physical System		3
					Applied Statistics		3	Software Engineering		3	Cloud Systems		3
					Mobile Device Application Programming		3	Smart Factory		3	Internship		4
								Natural Language Processing and Applications		3	Introduction to cybersecurity		3
											Blockchain technologies: Foundation and Applications		3
											Clinical Informatics		3
											Computer Vision		3
											Quantum Machine Learning		3
											Introduction to Quantum Computing		3
											Advanced AI Programming		3
											Academic Skills for AI Scientists		3
											Generative Artificial Intelligence Applications		3
										Applications of Deep Learning		3	
Note		1. Graduation Credits: 128 . (1) Required Courses: 63 credits. (2) Elective Courses: 36 credits. ① 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. ② 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). (3) General Education Courses: Please refer to the regulations of the General Education Center for course requirements. ① Introduction to Artificial Intelligence: 1 credit. ② English Field, Core, and Diversity Courses: 28 credits.											
	2. Physical Education Mandatory for Freshman and Sophomore Years: 0 credits.												
	3. [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.												
	4. 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.												
	5.Those who fail 'Capstone (II)' may use 'Capstone (I)' as a substitute for the course.												
	6. "Introduction to Quantum Computing" is a prerequisite for "Quantum Machine Learning." Those who have not passed the former course may not enroll in the latter.												