

**110th Academic year Tamkang university compulsory subjects for freshmen for the bachelor's degree
program of the Department of Computer Science and Information Engineering (English Taught Program)**

Course name		Credit	1 st year		2nd year		3rd year		4th year		5th year		Remark	
			1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd		
Fundamental courses (12 credits)	Foreign Language (Q)	8	2	2	2	2							Compulsory English course for freshman year and optional foreign language for sophomore year	
	Ability of Expressing in Spoken and Written Chinese	2											Ability of Expressing in Spoken and Written Chinese	
	Learning in University (N)	1	1										Learning and Development (N)	
	Extracurricular Activities and Team-ship Development (K)	1		1									Learning and practice of clubs (K)	
General Education & Core Courses (14 credits)	Classics in World Literature (L)	2											Humanity categories (At least 2 credits)	1.Each part from categories only can take up to 2 subjects for 4 credits.
	History and Culture (P)	2												
	Philosophy and Religion (V)	2												
	Arts Appreciation and Invention (M)	2												
	Global Outlook (T)	2											Society categories (At least 2 credits)	
	Futures Studies (R)	2												
	Social Analysis (W)	2												
	Civil Society And Participation (S)	2												
	Information & Computer Education (O)	2											Science categories (At least 2 credits)	
	Global Technology Revolution (Z)	2												
Natural Sciences (U)	2													
Other course	Physical Education	0	0	0	0	0								
	All-Out Defense Education Military Training and Nursing	0	0	0										
Campus And Community Service-Learning		0	0	0										

(1) Total credits of compulsory subjects: 77 credits (including 26 credits of general education courses)

(2) Minimum total number of credits required for elective courses in this department: 20 credits.

(3) Total credits of other elective courses: 31 credits

Total credits for graduation: 128 credits

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		1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	
Discrete Mathematics	3	3										
Calculus	3	3										
Introduction To Computers	3	3										
Computer Programming	3	3										
Probability and Statistics	3		3									
Object Oriented Programming	3		3									
Linear Algebra	3			3								
Computer Organization	3			3								
Data Structures	3			3								
Introduction to Software Development	3			3								
Introduction To Computer Network	3				3							
Operating Systems	3				3							
Algorithms	3				3							
Database	3				3							
Open Source Practice	3				3							
Mathematics For Machine Learning	3							3				
Special Topics Lab.	3							3				
Junior Abroad	0							0				Junior students must go abroad for one academic year on his/her own expense. However, this one only applies on Taiwanese students but being optional for international and overseas Chinese students.

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***Important matters:**

- 1. The course “Exploring and Implementing Social Issues” is not a compulsory subject for foreign students, but it can still be taken. It’s up to you. If not, you will have to take Social Analysis (W) categories courses.
- 2. The course” Study Abroad and International learning” is not a compulsory subject for foreign students, but it can still be taken. It’s up to you. If not, you will have to take Global Outlook (T) categories courses.
- 3. The course” Team Development” is not a compulsory subject for foreign students, but it can still be taken. It’s up to you. If not, you will have to finish the Learning and Practice of Club (K) plan.

Learning and Practice of Club (K):

A-Introductory courses (scheduled for the second semester of freshman year)+ B-Activity participation (participating in club activities)+ C-Activity execution (execution of community activities).