113學年度入學新生課程規劃表

資訊工程學系全英語學士班

校訂必修(通識核心課程) **共計２6學分**

類別		課程/學門	學分	開課年級
基本知能(12)	外國語文學門(Q)	英文(一)	4	一
		大二外文自由選	4	二
	語文表達	中國語文能力表達	2	一下
	學習與發展(N)	大學學習	1	一上
	社團學習與實作(K) *三全教育學生請另詢所屬學系	課外活動與團隊發展 團隊發展承認為課外活動與團隊發展必修1學分。	1	一下
通識核心課程(12)	探索永續(必修)		**1**	**一上**
	人文領域	文學經典學門(L)	2	**自行上網選修** 1.每學門至多修習２科 2.社會議題探索暨實踐承認為社會分析學門必修2學分。 3.國際學習承認為全球視野學門必修2學分。
		歷史與文化學門(P)		
		哲學與宗教學門(V)		
		藝術欣賞與創作學門(M)		
	社會領域	**全球視野學門(T)** *三全教育學生請另詢所屬學系	2	
		未來學學門(R)		
		社會分析學門(W) *三全教育學生請另詢所屬學系		
		公民社會及參與學門(S)		
	科學領域	資訊教育學門(O)	2	
		全球科技革命學門(Z)		
		自然科學學門(U)		
全民國防教育軍事訓練（一）-國防科技			0	
體育			4	不計入畢業學分
校園與社區服務學習			2	

系訂必修 **共計51學分**

科目	學分	開課年級
離散數學	3	一
微積分	3	一
計算機概論	3	一
計算機程式語言	3	一
機率統計	3	一
物件導向程式設計	3	一
線性代數	3	二
計算機組織	3	二
資料結構	3	二
網路概論	3	二
作業系統	3	二
軟體開發導論	3	二
演算法	3	二
資料庫	3	二
開源軟體實務	3	二
機器學習數學	3	四
專題實驗	3	四
大三出國	0	畢業門檻，依規定三年級須至本系指定姊妹校

系訂選修 **共計 22學分**

科目	學分	開課年級
進階程式設計	3	一
管理資訊系統	3	一
電腦模擬	3	二
統計學	2	二
電子商務	3	二
系統分析與設計	3	二
企業資訊系統	2	二
網路應用設計	3	三
專利管理	3	三
雲端計算	3	三
人工智慧與專家系統導論	3	三
無線區域及個人網路	3	三
工程數學	3	三
進階C語言實務	3	三
資訊安全導論	3	三
物聯網概論	3	三
決策支援系統	3	四
資料分析(一)	3	四
軟體開發與專案管理	3	四
資料探勘	3	四
網路安全	2	四
人工智慧概論	2	四
大數據分析技法	3	四
數據科學實務：使用Python	3	四
人工智慧之深度計算入門	3	四
ＪＡＶＡ程式設計	3	四
行動通訊安全	3	四
數位影像處專題	3	四
金融科技安全	3	四

◎系訂選修課程依當學期開課課程為主，以上列表僅供參考。

校　必　修：　26學分
系　必　修：　51 學分
系　選　修：　22 學分
自由選修：　29 學分

合計128 學分(★最低畢業學分數：128)

Department of Computer Science and Information Engineering **(English Taught Program)**

113 Academic Year Freshman Course Planning Table

School Compulsory Courses 26 Credits

Field		Course Name	credit	Grade
Fundamental courses (12)	Foreign Language (Q)	English (I)	4	1st year
		optional foreign language for sophomore year	4	2nd year
	Ability of Expressing in Spoken and Written Chinese	Ability of Expressing in Spoken and Written Chinese	2	1st year
	Learning and Development (N)	Learning in University	1	1st year
	Learning and Practice of Club (K) *Holistic Education students please contact their departments.	Extracurricular activities and team development. Team development is recognized as a compulsory credit of 1 credit for extracurricular activities and team development.	1	1st year
General Education & Core Courses (12)	Exploring Sustainability		1	1st year
	Humanities	Classics in World Literature (L)	Humanity categories (At least 2 credits)	1.Each part from categories only can take up to 2 subjects for 4 credits. 2.Exploring and Implementing social issues is recognized as a compulsory course for 2 credits in social analysis. 3. study abroad and international learning are recognized as 2 compulsory credits for Global Outlook
		History and Culture (P)		
		Philosophy and Religion (V)		
		Arts Appreciation and Invention (M)		
	Society and Culture	**Global Outlook (T)** *Holistic Education students please contact their departments.	Society categories (At least 2 credits)	
		Futures Studies (R)		
		Social Analysis (W) *Holistic Education students please contact their departments.		
		Civil Society And Participation (S)		
	Scientific Inquiry	Information & Computer Education (O)	Science categories (At least 2 credits)	
		Global Technology Revolution (Z)		
		Natural Sciences (U)		
All-Out Defense Education Military Training and Nursing			0	
Physical Education			4	Not counted toward graduation credits.
Campus And Community Service-Learning			2	

Department Compulsory Courses 51 credits

Course Name	credit	Grade
Discrete Mathematics	3	1st year
Calculus	3	1st year
Introduction To Computers	3	1st year
Computer Programming	3	1st year
Probability and Statistics	3	1st year
Object Oriented Programming	3	1st year
Introduction To Computer Network	3	2nd year
Linear Algebra	3	2nd year
Computer Organization	3	2nd year
Data Structures	3	2nd year
Introduction to Software Development	3	2nd year
Operating Systems	3	2nd year
Algorithms	3	2nd year
Database	3	2nd year
Open Source Practice	3	2nd year
Mathematics For Machine Learning	3	4th year
Special Topics Lab.	3	4th year
Junior Abroad	0	4th year

Department Elective Courses 22 Credits

Course Name	credit	Grade
Advanced Computer Programming	3	1st year
Management Information System	3	1st year
Computer Simulation	3	2nd year
Statistics	3	2nd year
Electronic Commerce	3	2nd year
Numerical Analysis	2	2nd year
System Analysis And Design	3	2nd year
Enterprise Information System	3	2nd year
Network-Based Application Design	3	3rd year
Patent Management	3	3rd year
Introduction To Information Security	3	3rd year
Introduction To Artificial Intelligence And Expert Systems	3	3rd year
Introduction To Internet Of Things	3	3rd year
Cloud Computing	3	3rd year
Network Security	3	3rd year
Wireless Local Area Networks	3	3rd year
Engineering Mathematics	3	3rd year
Advanced C Programming	3	3rd year
Decision Support Systems	3	4th year
Data Analysis I	3	4th year
Data Mining	3	4th year
Software Development And Project Management	3	4th year
Introduction To Artificial Intelligence	3	4th year
Big Data Analytic Techniques	3	4th year
Practical Data Science On Python	3	4th year
Introduction To Deep Computing In Artificial Intelligence	3	4th year
Java Programming	3	4th year
Mobile Communications Security	3	4th year
Digital Image Processing Project	3	4th year
Fintech Security	3	4th year

◎ The department elective courses are mainly based on the courses offered in the current semester. The above list is for reference only.。

(1)Total credits of compulsory subjects: 75 credits (including 26 credits of general education courses)
(2)Minimum total number of credits required for elective courses in this department: 22 credits.
(3)Total credits of other elective courses: 29 credits
(4)Programming Examination
Total credits for graduation: 128 credits

***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).