

Chinese Name of Subject	English Name of Subject	Compulsory or Elective	Credit	Hour	Course Level	Note
Specialized Courses (Compulsory 58 credits, Capstone Project Mandatory 3 credits)						
1. Compulsory 58 credits						
微積分(上)	Calculus I	Compulsory	3	3	Freshman First Semester	
微積分(下)	Calculus II	Compulsory	3	3	Freshman Second Semester	
計算機程式設計	Computer Programming	Compulsory	3	3	Freshman First Semester	
計算機概論	Introduction to Computer Science	Compulsory	3	3	Freshman First Semester	
數位邏輯設計	Digital Logic Design	Compulsory	3	3	Freshman First Semester	
數位邏輯設計實驗	Digital Logic Design LAB	Compulsory	2	3	Freshman Second Semester	
物件導向程式設計	Object-Oriented Programming	Compulsory	3	3	Freshman Second Semester	
離散數學	Discrete Mathematics	Compulsory	3	3	Freshman Second Semester	
應用電子學(一)	Applied Electronics (I)	Compulsory	3	3	Sophomore First Semester	
視窗程式設計	Windows Programming	Compulsory	3	3	Sophomore First Semester	
資料結構	Data Structure	Compulsory	3	3	Sophomore First Semester	
線性代數	Linear Algebra	Compulsory	3	3	Sophomore First Semester	
計算機網路	Computer Networks	Compulsory	3	3	Sophomore First Semester	
應用電子學(二)	Applied Electronics (II)	Compulsory	3	3	Sophomore Second Semester	
應用電子學實驗	Applied Electronics Lab.	Compulsory	1	2	Sophomore Second Semester	
演算法	Algorithm	Compulsory	3	3	Sophomore Second Semester	
計算機組織	Computer Organization	Compulsory	3	3	Sophomore Second Semester	
計算機組織及微算機實驗	Computer Organization and Microcomputer LAB	Compulsory	1	2	Sophomore Second Semester	
網路程式設計	Network Programming	Compulsory	3	3	Sophomore Second Semester	
組合語言與系統程式	Assembly Language and	Compulsory	3	3	Junior First Semester	

	System Programs					
作業系統	Operating System	Compulsory	3	3	Junior Second Semester	

2. Issue-Oriented Course 3 credits (Capstone Project Mandatory 3 credits)

網路與通訊專題(一)	Special Topic Research on Networks and Communications (I)	Elective	1	2	Junior First Semester	
計算機系統專題(一)	Special Topic Research on Computer Systems (I)	Elective	1	2	Junior First Semester	
智慧型科技專題(一)	Special Topic Research on Intelligent Technology (I)	Elective	1	2	Junior First Semester	
網路與通訊專題(二)	Special Topic Research on Networks and Communications (II)	Elective	1	2	Junior Second Semester	
計算機系統專題(二)	Special Topic Research on Computer Systems (II)	Elective	1	2	Junior Second Semester	
智慧型科技專題(二)	Special Topic Research on Intelligent Technology (II)	Elective	1	2	Junior Second Semester	
網路與通訊專題(三)	Special Topic Research on Networks and Communications (III)	Elective	1	2	Senior First Semester	
計算機系統專題(三)	Special Topic Research on Computer Systems (III)	Elective	1	2	Senior First Semester	
智慧型科技專題(三)	Special Topic Research on Intelligent Technology (III)	Elective	1	2	Senior First Semester	

3. Advanced Courses 33 credits (3 Modules, Minimum 6 credits per Module)

Module A - Networking and Multimedia

多媒體概論	Introduction to Multimedia	Elective	3	3	Sophomore Year	Course Offering for All Grades with Flexible Scheduling
機率	Probability	Elective	3	3	Sophomore Year	
網路協定	Network Protocols	Elective	3	3	Junior Year	
無線網路	Wireless Networks	Elective	3	3	Junior Year	
網路技術實務與模擬	Practice and Simulation of Network Technologies	Elective	3	3	Junior Year	
無線通訊與行動網路	Wireless Communication and Mobile Network	Elective	3	3	Senior Year	

新世代網路	Next Generation Networks	Elective	3	3	Senior Year
語意網路與資訊擷取	Semantic Web and Information Retrieval	Elective	3	3	Senior Year
網路資訊安全	Computer Network Security	Elective	3	3	Senior Year
網路規劃與管理	Network Planning and Management	Elective	3	3	Senior Year
個人通訊服務網路	Personal Communication Service Networks	Elective	3	3	Senior Year
行動隨意感測網路	Mobile ad hoc sensor networks	Elective	3	3	Senior Year
網站資訊系統設計與經營模式	Web System Design and Operation	Elective	3	3	Senior Year

Module B - Computer Systems

數值方法	Numerical Methods	Elective	3	3	Sophomore Year
電腦視覺	Computer Vision	Elective	3	3	Sophomore Year
軟體工程	Software Engineering	Elective	3	3	Junior Year
硬體描述語言	Very High Speed Integrated Circuit Hardware Description Language	Elective	3	3	Junior Year
企業系統分析與程式設計	Business system analysis, design and programming	Elective	3	3	Junior Year
工程數學	Engineering Mathematics	Elective	3	3	Junior Year
計算機結構	Computer Architecture	Elective	3	3	Junior Year
嵌入式系統	Embedded Systems	Elective	3	3	Junior Year
資料庫系統	Database System	Elective	3	3	Junior Year
圖形辨認	Pattern Recognition	Elective	3	3	Senior Year

Course Offering for All Grades with Flexible Scheduling

普及計算	Pervasive computing	Elective	3	3	Senior Year	
最佳化演算法	Optimization Algorithms	Elective	3	3	Senior Year	
行銷策略資訊系統	Marketing force strategic information system	Elective	3	3	Senior Year	
Module C - Intelligent Technologies						
普通物理	General Physics	Elective	3	3	Freshman Year	Course Offering for All Grades with Flexible Scheduling
物聯網技術與發展	Internet of Things - Technology and Development	Elective	3	3	Freshman Year	
智慧型機械	Intelligent Machine	Elective	3	3	Sophomore Year	
電機機械與感測器原理	Electric Machinery and Principles of Sensors	Elective	3	3	Sophomore Year	
人工智慧導論	Introduction to Artificial Intelligence	Elective	3	3	Sophomore Year	
專利實務	Patent Practice	Elective	3	3	Junior Year	
影像處理	Image Processing	Elective	3	3	Junior Year	
嵌入式系統軟體設計	Software Design of Embedded System	Elective	3	3	Junior Year	
系統分析與設計	System Analysis and Design	Elective	3	3	Junior Year	
物聯網技術實務應用	Application of Internet of Things (IoTs) Technology	Elective	3	3	Junior Year	
數位訊號處理	Digital Signal Processing System	Elective	3	3	Senior Year	
產業科技實習	Practice of Industrial Technology	Elective	3	3	Senior Year	
機器學習	Machine Learning	Elective	3	3	Senior Year	

