

# Four-year course planning table for the Smart Software Design Group of the Department of Information Engineering

109 學年度第二學期第二次系務會議通過 110.05.11  
109 學年度第二學期第二次院課規會議通過 110.06.09

	First Grade		Second Grade		Third Grade		Fourth Grade	
	Last Term	Next Term	Last Term	Next Term	Last Term	Next Term	Last Term	Next Term
<b>Compulsory</b>	English ( I ) (2) Physical Education(I) (0)	English ( II ) (2) Physical Education ( II ) (0)	English ( III ) (1)	English(IV)(1)				
<b>General Studies</b>	核心通識課程：通識課程分為「社會關懷(含“人文涵養”及“社會習察”2向度)」、「創新創意(含“藝術感知”及“科學探究”2向度)」、「健康促進(含“自我探索”及“生醫衛保”2向度)」三類，每類之核心通識課程至少必須修習兩門，需12學分；多元選修：需修10學分，共11門課22學分							
<b>calibration</b>	<b>Intercollege Micro Programs(3)</b>							
Department of compulsory	Discrete Mathematics (3) Introduction to Computer (3) ★ C Programming Design (3) C programming practice (1) (1)	Calculus (3) C++Programming Design (3) C programming practice (II) (1)	Data structures (3) Linear Algebra (3)	Advanced Data Structure (3) Database System (3) Probability (3)	Intro. to Computer Algorithms (3) Software Engineering (3)	Operating System (3) Project Implementation (1)	Project Implementation (1)	
number of credits	10	7	6	9	6	4	1	0
<b>Required of Elective</b>				Innovative Information Technology and Application (3)				
Elective	English for Science and Technology (1) (3)* Visual Programming Logic and Design (3)★	The implementation and applications of programming (3) * English for Science and Technology (II) (3) * Information Application Software (3) Multimedia Softwares (3) The Internet and Applications (3) Introduction of Artificial Intelligence (3) ★	Introduction to UNIX Operating System (3) Robot Programming (3)* Matlab Programming (3) Digital Image Editing (3) Windows Programming (3) Engineering Mathematics (3) Combinatorial Mathematics (3) Introduction to Cloud Computing (3) Multimedia Technology and Application (3) Python Programming (3) Introduction to Game Design (3)	Advanced Linear Algebra (3) * JAVA Programming (3)* Digital signal processing (3) Advanced Matlab Programming (3) Problem Solving and Programming Techniques (3) Interactive Multimedia Systems (3) APP Design and Application (3) Advanced Python Programming (3) Introduction to Internet of Things (3) Assembly Language (3) Logic Electronic (3) Digital Music Editing and Production (3)	OCA, Java Programmer (3) Computer Graphics (3) Cisco Certified Network Associate (CCNA) I (3) * Image Processing (3) Oracle Database SQL Certified Expert (3) iOS APP Programming (3) Video Editing and Digital Design (3) Introduction to VLSI (3) Statistics (3) System Programming (3) Microprocessor System (3) * Web Design and Programming (3) Computer Network (3)	OCP, Java Programmer (3) Computer Animation (3) Cisco Certified Network Associate (CCNA) II (3) Oracle Database Administrator Certified Associate (3) Android APP Programing (3) Practical Robot Programming (3) Programming Language (3) Introduction to Graphs (3) Computer Architecture (3) Compilers (3) * Advanced Web Programming (3) Statistical Practice (3) Introduction to Machine Learning (3) Artificial Intelligence (3)	Digital Audio Signal Processing (3) Wireless Network (3) Electronic Commerce (3) Computer Vision (3) Professional Internships (3) Data Mining (3) * Wireless ad hoc and sensor networks (3) Machine Learning (3) Network Security Practice (3) All Semester Internships (9)	Video processing (3) Pattern Recognition (3) Professional Internships (3) Information Project Implementation (3) Digital Learning (3) Big Data Analysis and Applications (3) All Semester Internships (9) Internet of Things-Theory and Implementation (3) Deep Learning (3) Cloud Security (3) UAV Unmanned Aerial Vehicle (3) Practical Game Design (3)
number of credits	6	18	33	42	39	42	36	42