Four-year course planning table for the Artificial Intelligence group of the Department of Information Engineering

	First Grade		Second Grade		Third Grade		Fourth Grade	
	Last Term	Next Term	Last Term	Next Term	Last Term	Next Term	Last Term	Next Term
Compulsory	English（Ⅰ）(2) Physical Education(Ⅰ)(0) All-out Defense Education Military Training-International Situations(0)	English（Ⅱ）(2) Physical Education（Ⅱ）(0) All-out Defense Education Military Training-Defense Technology(0)	English（Ⅲ）(1) Physical Education(0)	English(Ⅳ)(1) Physical Education(0)				
General Studies	Core General Education Courses: Core general education courses are divided into three categories: "Social Concerns" (including the aspect of "Humanistic Cultivation" and "Social Observation"), "Innovation and Creativity" (including the aspect of "Artistic Perception" and "Scientific Exploration"), and "Health Promotion" (including the aspect of "Self-Exploration" and "Biomedical Health and Safety"). In each category, students are required to take a minimum of two core general education courses, totaling 12 credits. For elective courses, students need to complete 11 courses, totaling 10 credits.							
calibration	Intercollege Micro Programs(3)							
Department of compulsory	Calculus (3) Introduction to Computer (3) ★ C Programming Design (3) C programming practice (Ⅰ)(1)	Discrete Mathematics (3) C++Programming Design (3) C programming practice (Ⅱ)(1) Introduction of Artificial Intelligence (3) ★	Data structures (3) Linear Algebra (3) Python Programming (3)	Database System (3) Probability (3)	Intro. to Computer Algorithms (3)	Project Implementation (1) Artificial Intelligence (3)	Project Implementation (1)	
number of credits	10	10	9	6	3	4	1	0
Required of Elective				Innovative Information Technology and Application (2)				
Elective	English for Science and Technology（Ⅰ）(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 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) 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) Advanced Data Structure (3) Introduction to Internet of Things (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 Programing (3) Video Editing and Digital Design (3) Introduction to VLSI (3) Statistics (3) Software Engineering (3) * System Programming (3) Microprocessor System (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) Operating System (3) Computer Architecture	Digital Audio Signal Processing (3) Wireless Network (3) Electronic Commerce (3) Computer Vision (3) Professional Internships (3) Data Mining (3) * All Semester Internships (9) Wireless ad hoc and sensor networks (3) Machine Learning (3) Network Security Practice (3)	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

				Assembly Language (3) Logic Electronic (3) Digital Music Editing and Production (3)	Web Design and Programming (3) Computer Network (3)	(3) Compilers (3) * Advanced Web Programming (3) Statistical Practice (3)		(9) Internet of Things-Therory and Implementation (3) Deep Learning (3) Cloud Security (3) UAV Unmanned Aerial Vehicle (3) Intelligent AOI Project Implementation (1) Practical Game Design (3)
number of credits	6	15	30	41	42	39	36	43

Description:

1. Graduation compulsory course: 44 (department) + 2 (topic) + 6 (English) + 22 (general education) = 74 credits, elective: 45 (department) + 9 (external department) = 54 credits. A total of 128 credits. Compulsory courses cannot be taken across groups, and elective courses with the same title can be cross-selected. Students must complete at least one program before graduation.

2. General courses: three categories of core courses: "Social Care (including the 2 dimensions of "Humanistic Cultivation" and "Social Observation"), "Innovation and Creativity (including the 2 dimensions of "Artistic Perception" and "Scientific Inquiry"), and "Health Promotion (including the 2 dimensions of "Self-Exploration" and "Biomedical and Health Protection"). At least two core general courses for each category must be taken, requiring 12 credits; Multiple electives: 10 credits are required, in total 11 courses 22 credits. Graduation requires National Defense Education and Military Training – International Situation, National Defense Education and Military Training – National Defense Science and Technology, Physical Education (I) (II) and Sports Interest Option 2, and Volunteer Service Activities (18 hours), all of which are worth 0 credits.

3. Elective courses that are given priority are marked with *; core courses of the college are marked with ★.

4. Required for majors in this department: Innovative Information Technology and Application 2 credits

5. Only those who complete the study requirements in accordance with the "Implementation Measures for the Basic Ability Indicators of Students of the Chung Hua University", "Implementation Measures of the Basic Ability Indicators of Students of the School of Information Engineering of Chung Hua University" and "Implementation Measures of the Basic Ability Indicators of Students of the Department of Information Engineering of Chung Hua University" will be eligible for graduation.

6. Elective courses should be opened according to the actual situation of the semester.