Four-year course planning table for the Information Engineering Group of the Department

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	Freshman		Sophomore		Junior		Senior	
	Semester I	**Semester II**	**Semester I**	**Semester II**	**Semester I**	**Semester II**	**Semester I**	**Semester II**
Compulsory	English (I) (2) Physical Education (I) (0)	English (II) (2) Physical Education（II）(0)	English (III) (1)	English (IV) (1)				
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	**◎Exploring the Science Park (2) AI Experience 2.0 (1)**							
Department of compulsory	★Introduction to Computer Science (3) ◎★Python Programming (3) Python Programming Practice (1) ◎Visual Programming Logic and Design (3) Discrete Mathematics (3)	◎★C Programming Design (3) C Programming Practice (1) Python Programming Certification (3)	◎★Linear Algebra (3)	◎★Probability (3) Innovative Information Technology and Application（3）	Computer Network (3)	★Project Implementation (1)	★ Project Implementation (1)	
number of credits	13	7	3	6	3	1	1	0
Professional course								
Computer Engineering Course(Required Elective Courses) (22 credits)		◎★Calculus (3)	Data structures (3) ◎C++Programming Design (3) C++Programming Practice (1)	Logic Electronic (3) Intro. to Computer Algorithms (3)	Operating System (3)	Computer Architecture (3)		
Information Application Course (Required Elective Courses) (18 credits)		The Internet and Applications (3)	◎APP Design and Application (3)	◎Interactive Multimedia Systems (3) ◎Database System (3)	◎Web Design and Programming (3)	Robot Programming (3)		
Artificial Intelligence Course (Required Elective Courses) (21 credits)		◎★Calculus (3)	Data structures (3) ◎Advanced Python Programming (3)	◎Database System (3) ◎★Artificial Intelligence (3)	◎★Machine Learning (3)	◎Statistical Practice (3)		

Elective	English for Science and Technology（I）(3) Fundamental Electionics (3) Introduction to Design (3)	English for Science and Technology（II）(3) Multimedia Softwares (3)	◎JAVA Programming(3) Introduction to UNIX Operating System (3) Engineering Mathematics (3) Combinatorial Mathematics (3) Multimedia Technology and Application (3) The implementation and applications of programming (3)	◎Matlab Programming (3) ◎Windows Programming (3) Problem Solving and Programming Techniques (3) Advanced Data Structure (3) Assembly Language (3) Systems Programming (3) ◎Data Visualization Technology (3)	Cisco Certified Network Associate (CCNA) I (3) Image Processing (3) Oracle Database SQL Certified Expert(3) Microprocessor System (3) ◎Interaction Design (3)	Java Programmer (3) Cisco Certified Network Associate (CCNA) II(3) Oracle Database Administrator Certified Associate (3) Android APP Programing(3) Programming Language (3) ◎Advanced Web Programming (3) Introduction to Internet of Things(3) ◎Interaction Design (3) ◎Deep Learning (3) Video Editing and Digital Design (3)	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) Network Security (3) Introduction to Graphs(3) Internet of Things-Therory and Implementation (3) Game Design (3) Advanced Linear Algebra (3) Cloud Computing (3) ◎Deep Learning Project (3) ◎Information Visualization Des Project(3)	Video processing (3) Pattern Recognition (3) Professional Internships (3) ◎Big Data Analysis and Applications (3) UAV Unmanned Aerial Vehicle (3) Embedded System (3) Concrete Mathematics (3) Advanced Probability and Statistics(3) Cloud Security(3) Corporate internship (9)
number of credits	9	12	31	36	24	39	54	36

Description: (The core courses of the school are marked with ★◎new engineering plan courses)

1. Graduation compulsory course: 32 (department) + 2 (topic) + 6 (English) + 22 (general education) = 62 credits, elective: 57 (department) + 9 (external department) = 66 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. The students of this department must complete the course credits within the period of study in accordance with the "Regulations for the Completion of General Studies Courses of Chung Hua University" to meet the graduation qualifications. At least two core general education courses of each category must be taken, The six core general education courses must cover at least 4 dimensions and 12 credits are required; for multiple electives: 10 credits are required, a total of 11 courses with 22 credits.
3. For the English courses of this department, students must complete the required credits according to the "Chwa University English courses, on-campus and internal and external examinations, and "Workplace English" coursework points within the period of study to meet the graduation qualifications.
4. For the study of physical education courses of this department, students must complete the required credits within the period of study in accordance with the "Physical Education Course Study Regulations of Chung Hua University" to meet the graduation qualifications.
5. In order to achieve the "communication and expression ability" in the basic ability indicators of students of Chung Hua University, students of this department must complete and pass the English proficiency examination according to the "Implementation Measures for Graduation Qualification Examination of English Proficiency of Chung Hua University Students" within the period of study, and According to the "Implementation Key Points of Chinese Proficiency Test of Chung Hua University", students who have completed and passed the Chinese Proficiency Test are eligible for graduation.
6. In order to achieve the "Social Care Ability" in the basic ability indicators of students of Chung Hua University, students of this department must complete the required service hours for 18 hours according to the "Implementation Points for Volunteer Campus Culture Promotion of Chung Hua University" within the period of study. Graduation eligibility.
7. In order to achieve the "healthy physical ability" in the basic ability indicators of students of Chung Hua University, students of this department must complete the definite course credits and pass the swimming ability test within the study period according to the "Physical Education Courses of Chung Hua University" And the physical fitness test, to meet the graduation qualifications.
8. In order to achieve the "Information Application Ability" in the basic ability indicators of students of Chung Hua University, students of this department must complete the required credits and pass the information application within the period of study according to the "Implementation of the Information Application Ability Test of Chung Hua University". Examination, only to meet the graduation qualifications.
9. To achieve the "Innovation and Creativity Ability" qualification in the basic ability indicators of Chung Hua University students. Students of this department are required to study "Innovative Information Technology and Application" and pass the "Project Production" according to the "Implementation Measures for Innovation and Creativity Courses of Chung Hua University" within the study period, and submit at least one work to participate in the "Innovation Incubation Center" The innovation and creativity competition held is only eligible for graduation.
10. The elective credits for graduation from this department must be 9 credits from other departments, including "Exploring the Science Park" and "AI Experience 2.0",(Transfer students and foreign students are exempt from taking the course) but excluding general education, physical education, and military training courses.
11. Description of "Exploring the Science Park" course: In order to cultivate students' independent learning ability, understand SDGs issues, and start freshman independent exploration and learning, students of our school must complete the "Exploring the Science Park" course in freshman year, and the credits obtained can be recognized within 9 credits of external departments.
12. Elective courses should be opened according to the actual situation of the semester.
13. In order to achieve the "AI ability" in the basic ability indicators of students of Chung Hua University, students of this department must pass the AI ability examination in accordance with the "Implementation Measures for AI Ability Examination of Chung Hua University Students" within the period of study, and then meet the graduation qualifications.