# 國立勤益科技大學日間部四年制 115 學年度電資學院資訊工程系國際學生產學合作專班學分計畫表

National Chin-Yi University of Technology
Curriculum Planning of 2024 Four-Year Degree in Department of Computer Science and
Information Engineering International Students Industry-Academia Cooperative Education Program

| 科目 | Courses | 上學期 First Semester | | | 下學期 Second Semester | | |
|---|---|---|---|---|---|---|---|
| | | 學分 Credits | 正課 Lecture | 實習 Internship | 學分 Credits | 正課 Lecture | 實習 Internship |
| 共同必修科目(31 學分) General Required Courses (28credits hours) | | | | | | | |
| 第一學年 First Year | | | | | | | |
| 華語聽說(一) | Chinese Listening and Speaking (I) | 3 | 5 | 0 | | | |
| 華語讀寫(一) | Chinese Reading and Writing (I) | 3 | 5 | 0 | | | |
| 體育(一) | Physical Education (I) | 0 | 2 | 0 | | | |
| 華語輔導課程 | Extracurricular Chinese Class | 0 | 5 | 0 | | | |
| 華人文化與生活 | Chinese Culture and Life | 2 | 2 | 0 | | | |
| 華語聽說(二) | Chinese Listening and Speaking (II) | | | | 3 | 5 | 0 |
| 華語讀寫(二) | Chinese Reading and Writing (II) | | | | 3 | 5 | 0 |
| 體育(二) | Physical Education (II) | | | | 0 | 2 | 0 |
| 人權與法治 | Human Rights and Rule of Law | | | | 2 | 2 | 0 |
| 藝術鑑賞 | Art Appreciation | | | | 1 | 1 | 0 |
| 音樂鑑賞 | Music Appreciation | | | | 1 | 1 | 0 |
| 第二學年 Second Year | | | | | | | |
| 華語聽說(三) | Chinese Listening and Speaking (III) | 3 | 3 | 0 | | | |
| 產業發展概論 | Introduction to Industrial Development | 2 | 2 | 0 | | | |
| 英文聽與說(一) | English Listening and Speaking (I) | 3 | 3 | 0 | | | |
| 科技發展概論 | Introduction to Scientific Development | | | | 2 | 2 | 0 |
| 英文聽與說(二) | English Listening and Speaking (II) | | | | 3 | 3 | 0 |
| 第三學年 Third Year (無必修課程 No General Required Courses) | | | | | | | |
| 第四學年 Fourth Year (無必修課程 No General Required Courses) | | | | | | | |
| 專業必修科目(56 學分) Department Required Courses (56 credits) | | | | | | | |
| 第一學年 First Year | | | | | | | |
| 基礎數學 | Fundamentals of Mathematics | 3 | 3 | 0 | | | |
| 計算機概論 | Introduction to Computer | 3 | 3 | 0 | | | |
| 網頁設計 | Web Design | 3 | 1 | 2 | | | |
| 微積分 | Calculus | | | | 3 | 3 | 0 |
| 數位邏輯概論 | Logic Design | | | | 3 | 3 | 0 |
| 程式設計與實習(一) | Computer Programming and Practice (I) | | | | 3 | 1 | 2 |
| 第二學年 Second Year | | | | | | | |
| 程式設計與實習(二) | Computer Programming and Practice (II) | 3 | 1 | 2 | | | |
| 基本電學 | Basic Electricity | 3 | 3 | 0 | | | |
| Web 程式設計與實習 | Web Programming | 3 | 1 | 2 | | | |
| 資料結構 | Data Structures | | | | 3 | 3 | 0 |
| 產業實務實習(一) | Industrial Practice Internship (I) | | | | 7 | 0 | 7 |
| 第三學年 Third Year | | | | | | | |
| 電腦網路概論 | Introduction to Computer Network | 3 | 3 | 0 | | | |
| 產業實務實習(二) | Industrial Practice Internship (II) | 7 | 0 | 7 | | | |
| 演算法 | Algorithms | | | | 3 | 3 | 0 |
| 第四學年 Fourth Year (無必修課程 No Department Required Courses) | | | | | | | |
| 計算機組織與結構 | Computer Organization and Architecture | 3 | 3 | 0 | | | |
| 作業系統 | Operating System | | | | 3 | 3 | 0 |

| 科目 | Courses | 上學期 First Semester | | | 下學期 Second Semester | | |
|---|---|---|---|---|---|---|---|
| | | 學分 Credits | 正課 Lecture | 實習 Internship | 學分 Credits | 正課 Lecture | 實習 Internship |
| 專業選修科目 Department Elective Courses | | | | | | | |
| 第一學年 First Year （無排定專業選修課程 No Department Elective Courses) | | | | | | | |
| 第二學年 Second Year | | | | | | | |
| 專案分析與實習 | Project Analysis and Practice | 2 | 1 | 1 | | | |
| 勞動法規 | Labor Standards Act and its Enforcement Rule | 3 | 3 | 0 | | | |
| 微處理機 | Microprocessor | 3 | 3 | 0 | | | |
| 資訊系統個案研究 | Case Studies on Information System | 3 | 3 | 0 | | | |
| 人際溝通 | Interpersonal Communication | 3 | 3 | 0 | | | |
| 離散數學 | Discrete Mathematics | 3 | 3 | 0 | | | |
| 線性代數 | Linear Algebra | 3 | 3 | 0 | | | |
| 勞動法規與職場倫理 | Labor regulations and workplace ethics | | | | 3 | 3 | 0 |

| 單晶片微電腦應用 | Microcontroller Applications | | | | 3 | 3 | 0 |
| 系統性創新方法導論 | Introduction to Systematic Innovation Methods in | | | | 3 | 3 | 0 |
| C#程式語言 | C# Programming Language | | | | 3 | 3 | 0 |
| 單晶片原理 | Theory of Microcontroller | | | | 3 | 3 | 0 |
| 第三學年 Third Year | | | | | | | |
| 物聯網概論 | Introduction to IoT | 3 | 3 | 0 | | | |
| 人工智慧概論 | Introduction to Artificial Intelligence | 3 | 3 | 0 | | | |
| 無線感測網路 | Wireless Sensor Network | 3 | 3 | 0 | | | |
| 機率 | Probability | 3 | 3 | 0 | | | |
| Linux系統實務 | Practical Guide to Linux Administration | 3 | 3 | 0 | | | |
| 工作研究 | Work Study | 3 | 3 | 0 | | | |
| 智慧型機器人概論 | Introduction to Intelligent Robotics | 3 | 3 | 0 | | | |
| 資料庫概論 | Introduction to Database Management System | | | | 3 | 1 | 2 |
| 產業實務實習(三) | Industrial Practice Internship (III) | | | | 7 | 0 | 7 |
| 系統性創新方法實務 | TRIZ Systematic Innovation Practice | | | | 3 | 1 | 2 |
| 雲端應用實務 | Cloud Application Practice | | | | 3 | 1 | 2 |
| 程式方法概論 | Introduction to Programming Methodology | | | | 3 | 3 | 0 |
| 第四學年 Fourth Year | | | | | | | |
| 產業實務實習(四) | Industrial Practice Internship (IV) | 7 | 0 | 7 | | | |
| 巨量資料處理概論 | Introduction to Big Data | 3 | 3 | 0 | | | |
| 生醫訊號處理 | Biomedical Signal Processing | 3 | 3 | 0 | | | |
| 系統分析與設計實務 | System Analysis and Design Practice | 3 | 3 | 0 | | | |
| 電腦視覺實務 | Implementation of Computer Vision | 3 | 1 | 2 | | | |
| 嵌入式系統設計及實習 | Embedded System Design and Practice | 3 | 1 | 2 | | | |
| 產業實務實習(五) | Industrial Practice Internship ( V ) | | | | 8 | 0 | 8 |
| 巨量資料應用 | Application of Big Data | | | | 3 | 3 | 0 |
| 物聯網應用及實習 | Internet of Things Applications and Practice | | | | 3 | 1 | 2 |
| 模糊控制 | Fuzzy Control | | | | 3 | 3 | 0 |
| 軟體工程概論 | Introduction to Software Engineering | | | | 3 | 3 | 0 |
| 智慧型系統設計概論 | Introduction to Smart-Living System Design | | | | 3 | 3 | 0 |

備註 Note:
一、畢業至少應修滿 128 學分【必修 87 學分(包含共同科目 31 學分、專業科目 56 學分),選修至少 41 學分】。
　　Graduation should at least reach 128 credits [Compulsory 87 credits (including the common subjects of 31 credits, professional subjects of 56 credits), and elective at least 41 credits].
二、修習【校外實習專業課程】課程及格者,相關抵免作業依照國立勤益科技大學學生校外實習課程開設要點與國立勤益科技大學學生校外實習要點辦理。
　　For those who pass the [Off-campus Internship Professional Course] course, the relevant credit assignments shall be handled in accordance with the key points for off-campus internship courses for students of National Chin-Yi University of Technology and the key points for off-campus internship for students of National Chin-Yi University of Technology.
三、專業必修科目:產業實務實習(一)~(二)、專業選修科目:產業實務實習(三)~(五)為職場校外實習課程,每週實際實習時數為 24 小時。
　　Major compulsory subjects:Industrial Practical Internship (I) ~ (II), and professional elective subjects: Industrial Practical Internship (III) ~ (V) are workplace off-campus internship courses, with actual internship hours of 24 hours per week.
四、學生須於一年級第二學期結束前通過華語文能力 A2(含)級以上測驗。如未能通過華語文能力 A2(含)級以上測驗者,則逕予退學。
　　Students must pass the Chinese language proficiency test at level A2 (inclusive) or above before the end of the second semester of first grade.
　　Those who fail to pass the Chinese Language Proficiency Test A2 will be dropped from school.
五、特殊選修課程經系課程委員會審議通過,於系網公告後始得認列專業選修學分。
　　Special elective courses must be reviewed and approved by the Department Curriculum Committee and subsequently announced on the department's website before they can be counted as credits of the Department's Required Courses。