

建國科技大學 日間部 113學年度入學 四年制 電子工程系 開課表
Curriculum for Department of Electrical Engineering, 2024, Day School, Chienkuo Technology University

113403

| 共同必修 Common Required | 通 流 General Education | 一年級Freshman | | | | 二年級Sophomore | | | | 三年級Junior | | | | 四年級Senior | | | | 合計 Total | | | |
|--|---|-----------------------|------------|------------------------|---|---|---|----------------------------|--|-----------------------|---|---|------------|---|---|------------------------|------------|--------------|------------|------------|---|
| | | 上學期 First semester | | 下學期 Second semester | | 上學期 First semester | | 下學期 Second semester | | 上學期 First semester | | 下學期 Second semester | | 上學期 First semester | | 下學期 Second semester | | 學分 Credit | 時數 Hour | | |
| | | 學分 Credit | 時數 Hour | 學分 Credit | 時數 Hour | 學分 Credit | 時數 Hour | 學分 Credit | 時數 Hour | 學分 Credit | 時數 Hour | 學分 Credit | 時數 Hour | 學分 Credit | 時數 Hour | 學分 Credit | 時數 Hour | | | | |
| 專業基礎 Professional Basics | 國文 Chinese | 2 | 2 | 2 | 2 | 職場英文 Workshop English | 2 | 2 | 傳雅(一) Liberal Arts (I) | 2 | 2 | | | | | | | | | | |
| | 英文 English | 2 | 2 | 2 | 2 | 歷史與人生 Historiography & Life | 2 | 2 | 傳雅(二) Liberal Arts (II) | 2 | 2 | | | | | | | | | | |
| | 運動與健康(一)(二) Exercise and Health-(I)-(II) | 2 | 2 | 2 | 2 | 公民社會 Civil Society | | | 傳雅(三) Liberal Arts (III) | | | 2 | 2 | | | | | | | | |
| | 藝術入門 The Gateway to Arts | | | 2 | 2 | | | 傳雅(四) Liberal Arts (IV) | | | 2 | 2 | | | | | | | | | |
| | 小計total | 6 | 6 | 8 | 8 | 小計total | 4 | 4 | 2 | 2 | 小計total | 4 | 4 | 4 | 4 | 小計total | 0 | 0 | 28 | 28 | |
| 專業必修 Professional Required | 基礎數學 Foundation mathematics | 3 | 3 | | | | | | | | | | | | | | | | | | |
| | 化學 Chemistry | 2 | 2 | 2 | 2 | | | | | | | | | | | | | | | | |
| | 物理 Physics | 3 | 3 | 3 | 3 | | | | | | | | | | | | | | | | |
| | 微積分 Calculus | | | 3 | 3 | | | | | | | | | | | | | | | | |
| | 小計total | 8 | 8 | 8 | 8 | 小計total | 0 | 0 | 0 | 0 | 小計total | 0 | 0 | 0 | 0 | 小計total | 0 | 0 | 16 | 16 | |
| 專業必修 Professional Required | 數位邏輯與實驗 Digital logic and experimental | 3 | 4 | | | 電子學(一)(二) Electronics(1&2) | 3 | 3 | 3 | 3 | 專題製作(一)(二) Graduation Project(1&2) | 1 | 2 | 1 | 2 | | | | | | |
| | 計算機論 Introduction to Computer Science | 3 | 3 | | | 電子實習(一)(二) Electronics Practicum(1)(2) | 2 | 3 | 2 | 3 | 半導體概論與實習 Semiconductors | 3 | 4 | | | | | | | | |
| | 印刷電路板製作實習 PCB Design and Manufacturing Lab | 2 | 3 | | | 電路學(一) Electronic Circuits (1) | 3 | 3 | | | 科技英文 Technology English | | 2 | 2 | | | | | | | |
| | 電腦軟體應用 Application of computer software | 1 | 2 | | | 微系統應用與實習(一)(二) Microcomputer Applications and Practicum (1)(2) | 3 | 4 | 3 | 4 | 電子科技創新 Electronic-technology innovation | | 3 | 3 | | | | | | | |
| | 計算機程式 Computer Programming | | | 2 | 3 | 光電工程與實習 Photonics Engineering and Experiment | | | 3 | 4 | | | | | | | | | | | |
| 數位系統設計與實習 Digital Systems Design and Laboratory | | | 3 | 4 | 物件導向程式設計 Object-Oriented Programming | | | 3 | 3 | | | | | | | | | | | | |
| 小計total | 9 | 12 | 5 | 7 | 小計total | 11 | 13 | 14 | 17 | 小計total | 4 | 6 | 6 | 7 | 小計total | 0 | 0 | 0 | 49 | 62 | |
| 必修合計Total | | 23 | 26 | 21 | 23 | | | | | | | | | | | | | | 93 | 106 | |
| 基礎 foundation | 工程數學(必選) Engineering Mathematics(Required) | | | 2 | 2 | 技能實務訓練(必選) Practical technique training(Required) | | | 3 | 4 | 工業安全與衛生 Industrial Safety & Health | | 3 | 3 | | | | | | | |
| | 電路學(二) Electronic Circuits (2) | | | | | 電子學(三) Electronics (3) | | | 3 | 3 | 智慧財產與專利實務 Intellectual Property and The Practice of Patent Application | | 3 | 3 | | | | | | | |
| | 訊號與系統 Signals and System | | | | | 校外實習 Industrial practice | | | 2 | 2 | 工業電子與實習 Industrial Electronics Lab | | 3 | 4 | | | | | | | |
| | | | | | | 電磁學 Electromagnetics | | | | 3 | 3 | 電子產品生產實務 Manufacture and Practice of Electronic Products | | | | | | 3 | 3 | | |
| | | | | | | | | | | | | | | | | | | | | | |
| 資訊科技 Information Technology | 電動車導論 Introduction to Electric Vehicles | | | 3 | 3 | 物聯網應用實務 IoT Application Practice | | | 3 | 3 | 雲端服務應用與實習 Cloud Service Application and Practicum | | 3 | 4 | | | | | | | |
| | 網路架設 Network Setup | | | 3 | 3 | 人工智慧應用與實習 Artificial Intelligence Application Practice | | | 3 | 4 | 互動式網頁設計 Active Web Page Programming | | 3 | 3 | | | | | | | |
| | 手機app程式設計 Smartphone app program design | | | | 3 | 3 | 智慧生活設計與實習 Smart Life Design and Practice | | | 3 | 4 | 多媒體編輯實務 Multimedia editing practices | | | | | | 3 | 3 | | |
| | | | | | | 以數據應用設計 Big Data Applications and Design | | | | 3 | 3 | | | | | | | | | | |
| | | | | | | 數位影像處理與實習 Digital image processing and experimen | | | | 3 | 4 | | | | | | | | | | |
| 專業選修 Professional Elective | 微電腦應用 Microcomputer applications | | | | | 視窗程式設計 Windows Programming Languages | 3 | 3 | 感測元件與應用實務 Introduction of common sensors and its applications | 3 | 3 | 微控制器應用 Microprocessor application | | 3 | 3 | | | | | | |
| | 應用電子 Applied electronics | | | | | 圖形軟體程式設計與應用 Design and application of the graphic control software Program | 3 | 3 | 真空改機及薄膜技術 Vacuum thin film technology equipment | 3 | 3 | 超大型積體電路製程技術 Very Large-Scale Integrated Circuit Process Technology | | 3 | 3 | | | | | | |
| | | | | | | LED照明系統之分析與設計 Analysis and design of the LED lighting system | 3 | 3 | 電子材料 Electronic Materials | | | 3 | 3 | 平面顯示器導論 Introduction to Flat Panel Display | | | | | 3 | 3 | |
| | | | | | | 太陽能工程實務 Practice of Solar Energy Engineering | | | 3 | 3 | 材料分析 Analysis of Materials | | 3 | 3 | 半導體製程技術 Semiconductor Fabrication Technology | | | | | 3 | 3 |
| | | | | | | | | | | | | | 3 | 3 | 電池儲能系統設計 Design of Battery Energy Storage System | | | | | 3 | 3 |
| 技職 再進修 Vocational re-engineering | 嵌入式遊戲製作基礎與實習 Basis and experiment of embedded game manufacture | | | 3 | 6 | 嵌入式單晶片應用實習 Embedded Micro-controller Applied Practice | | | 3 | 6 | 嵌入式綠色節能技術與實習 Theory and Practice of Embedded Green Energy Technology | | 3 | 6 | 機器人及嵌入式系統設計與實習 Design and Implementation of Robotic Embedded Systems | | | | 3 | 6 | |
| 校訂課程 Revision courses | 全民國防教育軍事訓練(一)選修 National Defense Education Military Training(D/Elective) | 0 | 2 | 0 | 2 | | | | | | | | | | | | | | | | |
| | 勞作教育 Labor Education | 0.5 | 1 | 0.5 | 1 | | | | | | | | | | | | | | | | |
| | 青春護照 Youth Passport | 0.5 | 1 | 0.5 | 1 | | | | | | | | | | | | | | | | |
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| 備註 Note | 1.必修總學分數合計 95 學分。(共同必修 46 學分,專業必修 49 學分) 選修最低總學分數 33 學分。 The total number of compulsory credits is 95 credits(46 credits of common compulsory courses and 49 credits of major compulsory courses)The minimum total number of elective credits is 33 credits. | | | | | | | | | | | | | | | | | | | | |
| | 2.最低畢業總學分 128 學分。 MSM department requires a minimum of 128 credits for graduation. | | | | | | | | | | | | | | | | | | | | |

3.一年級至三年級每學期至少修習16學分,至多修習27學分。四年級每學期至少修習9學分,至多修習36學分。
For the first three years, students must take at least 16 credits and no more than 27 credits per semester. For the fourth year, students must take at least 9 credits and no more than 36 credits per semester.

4.傳雅一傳雅四不必依序修習,但須修完傳雅一傳雅四才可畢業。
Students do not need to take the "Liberal Arts" courses (I to IV) in sequence, but they must complete all four courses to graduate.

5.96.03.06系課程與教學委員會通過校外實習辦法。
The Department Curriculum and Teaching Committee meeting approved the off-campus internship method on March 6, 2007.

6.本校學生除應本校學則規定,修滿應修之學分外,應取得相關證照,以佐證具備下列基本能力,始得畢業。
一、專業能力二、語文能力三、電腦能力
身心障礙學生及外國學生不受前項畢業門檻規定之限制。

In addition to completing the required credits according to the school's regulations, students must also obtain relevant certifications to demonstrate that they possess the following basic abilities in order to graduate:
1. Professional ability
2. Language ability
3. Computer ability
Students with special conditions are exempt from these requirements.

7.依教育部規定校外實習只採計18學分,多修學分採計為興趣選修不列入畢業學分。
According to the regulations of the Ministry of Education, off-campus internships only count for 18 credits. Additional credits will be counted as interest electives and will not be included in graduation credits.

8.選修工程學院課程可計入畢業學分以12學分為限。(計畫課程除外)
The number of elective courses taken in the School of Engineering that can be counted towards graduation is limited to 12 credits. (Except planned courses)

9.工程學院共同必修:電腦軟體應用(1學分/2學時),計算機程式(2學分/3學時),科技英文(2學分/2學時)。
Required courses of the College of College of Engineering include: Application of computer software (1 credits/2 hours), Computer Programming (2 credits/3 hours), and Technology English (2 credits/2 hours).

10.112.09.26系課程與教學委員會通過:112.10.11院課程與教學委員會通過:112.10.20院課程與教學委員會通過:112.11.19院課程與教學委員會通過。
Passed by the Department Curriculum and Teaching Meeting on September 23, 2023 and Passed by the Curriculum and Teaching Committee of the College on October 11, 2023 and Passed by the school-level curriculum committee on October 20, 2023 and approved by CTU Academic Affairs Meeting on November 19, 2023.