

Kun Shan University

崑山科技大學

International Program of Automation, Internet of Things in Department of Information Engineering

資訊工程系自動化物聯網國際學生產學合作專班

General Courses	一般課程
Mandarin I	華語(一)
Through self-introduction(name, nationality, identity, hobby), and conversation practice to understand Mandarin in terms of numbers, Taiwan currency, telephone numbers, shopping and basic living language. Will also assist students to pass the A1-level Chinese Language Certificates.	透過自我介紹(名字、國家、身分、興趣),以及會話練習,來針對數字、臺灣貨幣、電話號碼、買東西等生活基本項目進行華語的認識,並輔導華語文 A1 證照。

General Courses	一般課程
Mandarin II	華語(二)
Through advanced daily conversation practices and teaching, students can learn more advanced Mandarin. Students will be tutored to pass the A2-level Chinese Language Certificates.	透過進階的日常生活基本項目,以及會話教學,讓學生進行華語進一步的深入,並輔導華語文 A2 證照。

General Courses	一般課程
Mandarin III	華語(三)
In addition to Mandarin lesson, students will learn reading and basic writing in Mandarin as well to increase the skills in communication in Mandarin.	除了進階的華語教學外,再融入華語閱讀及基礎的華語寫作,以提升同學在透過華語文溝通的能力。

General Courses	一般課程
Basic Chinese Language Speaking(I)	華語口語表達 (一)
Through situated learning with pictures and films to teach students in Mandarin phonetic symbols, pronunciation, and greeting language.	透過平時上課情境、圖片、影片引導的方式,讓同學熟悉國語注音符號與漢語拼音:聲調、發音練習、招呼用語。

General Courses	一般課程
Basic Chinese Language Speaking(II)	華語口語表達 (二)
Through situated learning with pictures and films to teach students in Mandarin living conversation, terms, and pronunciation.	透過平時上課情境、圖片、影片引導的方式,讓同學熟悉進階的華語日常生活用語、用詞與發音。

General Courses	一般課程
Basic Chinese Language Test (TOCFL) Listening & Reading	初階華語文測驗(TOCFL) 聽力閱讀

Through situated learning with pictures and films to teach students in Mandarin living conversation, terms, and pronunciation.	透過平時上課情境、影片引導的方式，提升同學對於華語文基本聽力能力，也採用引導的方式，讓同學可以有基本的華語閱讀能力。
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General Courses	一般課程
History and Culture of Taiwan	台灣歷史與文化
Leading students in understanding Taiwanese ethnic groups, meaning of naming, food culture, taboos, titles, greeting languages and wedding culture and regions.	以生活化的方式，引領同學認識台灣族群種類、姓名命名的意涵、飲食文化與禁忌、人際之間的稱謂、問候用語與情境，以及民族性與婚禮、喜宴文化、宗教等。

Compulsory Courses	專業必修課程
Programming	程式設計
Students learn how to program by C language in this course. We introduce the characteristics and evolution of C language at first, and the keywords of variable declaration, operator, sequential procedure, selection procedure, repeat procedure, structure, enumeration, subroutine. This course is applied some examples or questions to help students to use those keywords to be familiar with the usage.	本課程以 C 程式語言為內容，先介紹 C 語言的特性與演進，接著從變數宣告、運算子、循序流程、選擇流程、重複流程、集合、列舉、函式、指標開始逐一介紹各關鍵字的使用法；並在每次講解完以範例或問題讓同學實際演練熟悉各關鍵字之用法。

Compulsory Courses	專業必修課程
Design of Web and Database	網頁與資料庫設計
The course is combined theory and project realization (e.g. www server set-up, web programming, database, etc.) for promote learning results of students. Furthermore, since the job market changes day after day, the course is to increase the competition capability of students after graduation.	本課程主要結合伺服網頁程式設計之理論實務，包括 WWW 伺服器安裝、伺服網頁程式設計和資料庫等，以提升學生的學習成果；進一步培養學生畢業後之競爭實力以因應職場變遷。

Compulsory Courses	專業必修課程
Application of IOT	物聯網應用實務
This course discusses how to investigate, how to develop and design new products for IoT applications with introducing some practical and innovative examples. Moreover, students will know the market trends of relative products, and how to expand your business of products to whole the world.	以實際的物聯網技術範例，研討如何衍生產品設計並促進創新應用能力。本課程並講解最新產品發展趨勢，以及如何跨國合作。

Compulsory Courses	專業必修課程
IOT and Big Data	物聯網與大數據
This course is introduced the big data of data processing language for data analysis. This course is combined with case practice and IOT, to help students use a huge amount of data processing methods through practice, knowledge of data read, the concept of measurement. Additionally, the establishment and presentation of the model are given in the talk for interpretation of basic data analysis results.	本課程教導學生結合物聯網的數據及使用巨量資料處理語言進行資料分析，輔以案例實作，幫助學生運用巨量資料之處理方式，經由實作，將認識資料的讀取、概念的測量，模型的建立，並學會基本資料分析結果的呈現與詮釋。

Compulsory Courses	專業必修課程
Project	專題實作
In this course, students will know the important works of each stage of project, their associated documents and the needs of system design. Students will know how to cooperate and finish the project in the project realization process.	本課程將帶領學生總覽整個專題製作過程中，各階段之工作內容重點及相應之專題文件與系統設計上之需求，以期學生得以學會如何運作並落實專題製作之內容。

Compulsory Courses	專業必修課程
Integration of Information and Electrical Engineering	資電整合實務
The course aims to achieve the teaching objectives by introducing practical examples of practical integration of Information techniques and Electrical techniques.	課程中主要藉由介紹實務上資電整合的實際相關範例，來達成讓學生瞭解如何整合資訊與電機的技术。

Compulsory Courses	專業必修課程
Applications of Embedded System	嵌入式系統應用
This course is aimed at the basic programming skill for the drivers of the peripheral I/O devices in embedded systems. In addition, this course supplies the compilation procedures of bootloader and embedded operating system to help the students build a complete embedded system.	透過嵌入式系統裝置中常用的週邊輸出入單元基本驅動程式的編寫訓練，學習啟動載入程式與嵌入式作業系統的編譯連結及建置一完整嵌入式系統裝置。

Compulsory Courses	專業必修課程
Field Practice	校外實習
1.Understand the company culture and the workflow. 2.Cultivate ethics in career, attitude towards work,	1. 公司文化與工作流程之瞭解 2. 職場倫理、工作態度與人際關係之養成 3. 學習實習機構之生產技術和管理

<p>and interpersonal relationship.</p> <p>3.Learn the production and management techniques for the practical training organization.</p> <p>4.Final report and self-criticism."</p>	4. 期末報告與檢討
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Selective Courses	專業選修課程
Introduction of Embedded System	嵌入式系統導論
This course is aimed at the basic training of the applications of embedded system. It includes functions of embedded systems and integrations of computation and services.	此課程主要訓練學生進行嵌入式系統的基本應用，培養基本組成架構與各單元間如何結合與相互作用，產生強大的運算與服務能力之認識。

Selective Courses	專業選修課程
Introduction and Practice of Artificial Intelligence	人工智慧概論與實務
<p>1. Search Methods: Heuristic Search, Adversarial Search, etc.</p> <p>2. Knowledge Representation and Expert Systems: Logic and Production Rules, Semantic Net and Frame</p> <p>3. Machine learning: Probabilistic Reasoning and Bayesian Belief Networks, Hidden Markov Models, Graphical Models, Neural Networks, Genetic Algorithms</p> <p>4. Natural Language Understanding</p>	<p>1. 搜尋方法: 啟發式搜尋, 對抗式搜尋等</p> <p>2. 知識表示法與專家系統: 邏輯與生成規則、語意網絡與框架</p> <p>3. 機器學習: 機率性推理與貝式信念網絡, 隱式馬可夫模型, 圖型化模型 ‘類神經網路、基因演算法</p> <p>4. 自然語言之理解</p>

Selective Courses	專業選修課程
Industrial management	工業管理
This course focuses the introduction of industrial management. It will help students to understand the applications and importance of industrial management and enterprises.	針對工業管理的主要領域作全面的重點性介紹，讓修課同學可瞭解工業管理與企業中的應用和重要性。

Selective Courses	專業選修課程
Corporate Internship (I)	企業實習一
<p>1. Cultivate ethics in career, attitude towards work, and interpersonal relationship.</p> <p>2. Learn the production and management techniques for the practical training organization.</p> <p>3. Practice, drill and find questions.</p> <p>4. Practice, drill and acknowledge the questions.</p> <p>5. Practice, drill and investigation into the real questions.</p>	<p>1. 職場倫理、工作態度與人際關係之養成</p> <p>2. 學習實習機構之生產技術和管理</p> <p>3. 實務操作演練與現場問題提出</p> <p>4. 實務操作演練與現場問題確認</p> <p>5. 實務操作演練與現場問題改善建議擬定</p> <p>6. 提出現場問題改善建議</p> <p>7. 期末回饋與分享</p>

<p>6. Propose suggestions to the real questions. 7. Feedback and experience sharing in the final term."</p>	
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<p>Selective Courses</p>	<p>專業選修課程</p>
<p>Corporate Internship (II)</p>	<p>企業實習二</p>
<p>1. Cultivate ethics in career, attitude towards work, and interpersonal relationship. 2. Learn the production and management techniques for the practical training organization. 3. Practice, drill and find questions. 4. Practice, drill and acknowledge the questions. 5. Practice, drill and investigation into the real questions. 6. Propose suggestions to the real questions. 7. Feedback and experience sharing in the final term."</p>	<p>1. 職場倫理、工作態度與人際關係之養成 2. 學習實習機構之生產技術和管理 3. 實務操作演練與現場問題提出 4. 實務操作演練與現場問題確認 5. 實務操作演練與現場問題改善建議擬定 6. 提出現場問題改善建議 7. 期末回饋與分享</p>