

龍華科技大學

Lunghwa University of Science and Technology

課程簡介

COURSE DESCRIPTION

Course Code	Course Title (English)	Computer Elective	Credit(s)	Hour(s)	Course Description
科目代碼	科目名稱(中文)：	必/選修	學分數	上課時數	中文概述
通識課程 General education course	Basic Chinese (I)	C	4	8	Learners can use common words and expressions to make daily conversations. Lessons are arranged around daily experiences.
	初級華語(一)	C	4	8	培養日常生活溝通能力，課程圍繞生活周遭主題，學生能理解與使用常用語詞之表達。
	Basic Chinese Conversion (II)	C	1	2	Learners can use common words and expressions to make daily conversations. Lessons are arranged around daily experiences.
	初級華語會話(一)	C	1	2	培養日常生活溝通能力，課程圍繞生活周遭主題，學生能理解與使用常用語詞之表達。
	Basic Chinese Proficiency Test Level (I)	C	0	5	This course is paired with 'Chinese for Daily Life' and 'Listening for Daily Life Chinese'. It will be an intensive learning to create a Chinese environment, and improve students' language ability in a short time.
	初級華語檢定(一)	C	0	5	本課程搭配生活華文與生活華文聽講，利用密集的教學打造一個華語環境，短時間提升學生的語文能力。
	Workplace English (I)	C	2	2	The main goal of the course is to improve the ability of workplace English and improve the competition in workplace. This course helps students to prepare for careers in the modern age. It encompasses a wide variety of real-world skills that employers look for, including presentations skills, writing skills, social skills and communication skills.
	職場英文(一)	D	2	2	本課程開設旨在加強職場英文能力，並與原有之英文基礎結合，及早為未來就業準備，並提升就業競爭力。
	Basic Chinese (II)	C	4	8	Learners can use common words and expressions to make daily conversations. Lessons are arranged around daily experiences.
	初級華語(二)	C	4	8	培養日常生活溝通能力，課程圍繞生活周遭主題，學生能理解與使用常用語詞之表達。
	Basic Chinese Conversation (II)	C	1	2	The main goal of the course is to improve students' listening ability and promote realistic use of the language in understanding daily conversations, dialogues, and short stories through various class activities, class discussions, role-plays and movie-viewings. This course consists of various materials including listening activities in the textbook, songs, films, culturally-related and high-interest topics. Hopefully, students will be able to use the skills to make greater progress in their language learning and eventually become good listeners.
	初級華語會話(二)	C	1	2	本課程的主旨在提升學生英語聽力能力，藉由聽力活動、小組討論、角色扮演、影片欣賞等多樣性活動的聽力訓練，達到增進學生瞭解簡易會話，聽懂日常生活對話及簡單的故事能力。
	Basic Chinese Proficiency Test Level (II)	C	0	5	This course is paired with 'Chinese for Daily Life' and 'Listening for Daily Life Chinese'. It will be an intensive learning to create a Chinese environment, and improve students' language ability in a short time.
	初級華語檢定(二)	C	0	5	本課程搭配生活華文與生活華文聽講，利用密集的教學打造一個華語環境，短時間提升學生的語文能力。
	Workplace English (II)	C	2	2	The main goal of the course is to improve the ability of workplace English and improve the competition in workplace. This course helps students to prepare for careers in the modern age. It encompasses a wide variety of real-world skills that employers look for, including presentations skills, writing skills, social skills and communication skills.
	職場英文(二)	C	2	2	本課程開設旨在加強職場英文能力，並與原有之英文基礎結合，及早為未來就業準備，並提升就業競爭力。
	Intermediate Chinese (I)	C	3	6	Learners can use common words and expressions to make daily conversations. Lessons are arranged around daily experiences.
	中級華語(一)	C	3	6	培養日常生活溝通能力，課程圍繞生活周遭主題，學生能理解與使用常用語詞之表達。
	Intermediate Chinese Conversation(I)	C	3	3	The main goal of the course is to improve students' listening ability and promote realistic use of the language in understanding daily conversations, dialogues, and short stories through various class activities, class discussions, role-plays and movie-viewings. This course consists of various materials including listening activities in the textbook, songs, films, culturally-related and high-interest topics. Hopefully, students will be able to use the skills to make greater progress in their language learning and eventually become good listeners.
	中級華語會話(一)	C	3	3	本課程的主旨在提升學生英語聽力能力，藉由聽力活動、小組討論、角色扮演、影片欣賞等多樣性活動的聽力訓練，達到增進學生瞭解簡易會話，聽懂日常生活對話及簡單的故事能力。
Workplace Ethics	C	2	2	Ethics talks about the basic virtue and morality for interactions between people and people, people and society, society and society. It's the task of the greatest urgency at present for college students in Taiwan. The course covers several critical topics, including introduction to ethics, basic concepts on professional ethics, basic concepts on engineering ethics, basic concepts on business ethics, basic concepts on environmental ethics, ethics and law, ethic issues in the contemporary society. Speeches and group studies are also necessary and shall widen the knowledge into the real actions in students' daily life.	
職場倫理	C	2	2	本課程將針對各類工作職場所需之行為規範提出深入淺出的說明，內容包含「倫理學的基本概念」、「職場倫理初探」、「工程倫理初探」、「企業倫理初探」、「倫理與法律初探」、「環境倫理概念」、「當代社會的倫理議題」、等主題，亦邀請學者專家進行兩場專題演講，並以生活化之議題進行個案研討，激發學生學習興趣，深化教學效果。	
化工應用 Chemical	Applied Mathematics in Engineering	C	3	3	Cultivate capabilities in planned management, effective communication and teamwork. Possess the ability to recognize, analyze and solve technical and practical issues. Familiar with the necessary expertise knowledge, technology, skills and tools.
	應用數學	C	3	3	確認、分析和解決實務技術問題，具備數理知識之能力、運用創意思考於實務技術之能力
	Applied Physics	C	3	3	Including the basic concept of quantum mechanics, thermodynamics dynamics, and guide students to learn physical chemistry of interest.
	應用物理	C	3	3	包括量子力學、熱力學、動力學的基本概念，並引導學生產生學習物理化學的興趣

Engineering Application	Applied Chemistry	C	3	3	Raise has the basic knowledge of chemistry, the basic theories, basic skills and related knowledge of engineering technology and strong experimental skills, has a chemical basic research and applied basic research of training scientific thinking and scientific experiments, can be in scientific research institutions, institutions of higher learning and enterprises and institutions engaged in scientific research, teaching and management discipline senior specialized talents.
	應用化學	C	3	3	培養具備化學方面的基礎知識、基本理論、基本技能以及相關的工程技術知識和較強的實驗技能，具有化學基礎研究和應用基礎研究方面的科學思維和科學實驗訓練，能在科研機構、高等學校及企業單位等從事科學研究、教學工作及管理工作的高級專門人才的學科。
化工材料暨職業安全專業課程 Professional courses on Chemical Materials and Occupational Safety	Applied Chemistry Internship	C	2	2	Based on the students' learning ability, it can inspire the students' interest, thinking and ability, so that the teaching effect can cultivate the students' ability of observation, reasoning and judgment of chemical phenomena.
	應用化學實習	C	2	2	以學生的學習能力為基礎，啟發學生的興趣、思考和能力，使教學效果，可達到培養學生對化學現象之觀察、推理、判斷能力。
	Fundamentals of Materials Science	C	3	3	The purpose of the course is to enable students to acquire the knowledge of basic materials, covering the material structure, material identification, phase change, material properties and material application, so that students understand the relationship between composition, structure and performance, and then understand the essence of material application. The following are the goals for students to learn: (A) the geometry of the material structure, (B) material identification method, (C) light diffraction method, (D) the phase change of the material, (E) the performance of the material. Classification and Application of Materials.
	材料科學導論	C	3	3	以學生的學習能力為基礎，啟發學生的興趣、思考和能力，使教學效果，可達到培養學生對化學現象之觀察、推理、判斷能力。
	Physical Chemistry	C	3	3	Physical chemistry deals with the explanation of chemical properties in terms of the physical processes, and with the development of techniques for their study. It is a fundamental course in the fields of chemical engineering and materials science; for example, it closely relates to the courses of mass and energy balance, chemical engineering thermodynamics, and chemical reaction engineering, etc.
	物理化學	C	3	3	應用物理學的方法來探討化學上的各種現象，經由課程內容的講解和習題作業的練習，使學習者能循序漸進地建立基本觀念，並熟悉相關之數學運算工具；如具備了良好的物理化學基礎，對日後學習課程如化工熱力學、單元操作、反應工程、電化學、高分子化學、合成化學等皆有莫大的助益。
	Physical Chemistry Lab.	C	2	2	This course is to train students by experimental techniques and the principles of physical chemistry, and to become familiar with laboratory apparatus. Both the phenomena and data results of experiments are explained and treated.
	物理化學實習	C	2	2	訓練學生以實驗技巧，探討理論，認識儀器，並對實驗結果之數據與現象做評析與處理。
	Basic Chemical Engineering and Material Engineering Internship	C	2	2	By carrying out experimental review, I can understand the theory of unit operation course, familiarize myself with the operation, structure and characteristics of various equipment and machinery in unit operation, and learn the design of operation vari-ables, data collation and interpretation by means of experimental training. In this way, I can cultivate the ability to write engineering experiment report independently.
	基礎化工與材料工程實習	C	2	2	藉由進行實驗複習而瞭解單元操作課程之理論，並熟悉單元操作中各類設備、機械之操作、構造及特性，藉由實驗訓練分工合作的方法，學習操作變數之設計，及數據之整理與判讀，培養獨立撰寫工程實驗報告的能力。
	Unit Operation	C	3	3	Students of the University of Science and Technology have completed three semesters of "chemical equipment" in the senior high school, so they have a certain degree of understanding of the basic principles, construction, use, operation and maintenance of chemical machinery. After entering the University of Science and Technology, you must take the three-semester "Unit Operation and Transport Phenomena". Therefore, those two courses must be separated, the former belongs to qualitative cognition, the latter belongs to quantitative understanding; the former focuses on application, while the latter pays more attention to theoretical derivation and design.
	單元操作	C	3	3	了解熱傳現象與機構、熱傳計算原理與應用
	Unit Operation Practice	C	3	3	Develop multi-lingual capability, understand current issues, grasp the impact of practical skills toward environment, society and international communities, build up global view, and nurture a habit of continuing self-learning Possess the ability to use creative thinking in practical skills Familiar with the necessary expertise knowledge, technology, skills and tools. Indeed perform standard operating procedures and execution, analysis, interpretation and application of Industry on improving the ability of experimental techniques.
	單元操作實務	C	3	3	了解設備特性，應用力學原理進行流體操作，流動系統設計。
	Chemical Engineering Lab.	C	2	2	The objectives of this course enables students of college as follows: 1.to understand that endures the nano-material analysis technology and common instrument and equipment principle. 2.to carry on the track type for giving lessons and practice. The content includes all the nano-material analysis instruments in our school, for example, SEM, TEM, AFM, XRD, GC-Mass, DSC, TGA, FTIR, UV-Vis, zeta-potential, etc.. 3.Understanding, practice, operation and studying these instruments are the goal of this course.
	化工與材料工程實習	C	2	2	藉由進行實驗複習而瞭解單元操作課程之理論，並熟悉單元操作中各類設備、機械之操作、構造及特性，藉由實驗訓練分工合作的方法，學習操作變數之設計，及數據之整理與判讀，培養獨立撰寫工程實驗報告的能力。
	Occupational safety and health	C	2	2	Focusing on the basic concept of occupational safety, students will be guided to understand the applied management knowledge required by occupational safety managers through the cases of different occupational disasters and different equipment sites. Understand employer's liability and labor rights in the event of an occupational disaster
	職業安全衛生	C	2	2	首重職業安全之基本概念，透過不同職業災害和不同設備場所的相關案例，來帶領同學認識職業安全管理者須具備的管理應用知識，了解職業災害發生應負責任及勞工權益
	Workplace Ethics and Factory Management	C	2	2	To enhance learners' sense of responsibility and moral heart in their future career, to cultivate their ability of problem analysis, situational judgment and rational choice, so as to shoulder the determination of safeguarding social justice and maintaining environmental sustainability.
	職場倫理與工廠管理	C	2	2	提昇學習者在未來職業生涯之責任感與道德心，培養問題分析、情境判斷、理性抉擇的能力，以肩負保衛社會正義、維護環境永續的決心。
	Technical Report	C	1	3	The main purpose of this course is to assist in writing technical documents in English and Chinese with clear objectives, instructions and words, so as to clearly communicate the message to the specific target audience. The course content starts from the planning and design of technical documents, emphasizes the process planning of technical writing, the skills and methods of writing, discusses the format and the use of tools, and presents the improvement methods for the common mistakes. In addition, it also introduces the management planning of technical documents.
	技術報告	C	1	3	本課程主要在於協助寫出目標明確、指示清楚、文辭清晰的中文技術文件，以便將訊息清楚的傳達給特定對象。課程內容從技術文件的規劃設計著手，強調技術寫作的過程規劃、撰寫的技巧方法，編排格式與工具使用進行探討並舉例示範，並且針對常見的錯誤提出改善方法，此外對於技術文件的管理規劃亦作介紹。
	Chemical Analysis and Practice	E	3	3	Develop methods for analyzing the composition and structure of substances, so that the chemical composition can be qualitative and quantitative, and the chemical structure can be determined.
化學分析及實務	E	3	3	開發分析物質成分、結構的方法，使化學成分得以定性和定量，化學結構得以確定。	
Physical Properties of Material	E	3	3	Understand the principles and applications of physical properties of materials. This paper introduces the relationship between the basic principle structure and the phase diagram, the band theory of semiconductor materials and the basis of semiconductor as well as dielectric, magnetic and optical materials, so that students can understand the basic properties of optical and electromagnetic fields.	
材料物理性質	E	3	3	了解到材料物理性質的原理與應用，介紹基本原理結構與相圖之關係，半導體材料相關之能帶理論和半導體應用的基礎，和介電材料、磁性材料和光學材料，使學生具備瞭解相關光電磁之基本性質。	

化工光電材料 暨職業 倫理專業課程 Professional course of chemical Optoelectronic Materials and Professional Eth-ics	Introduction to Optoelectronics and applications	E	3	3	Understand the principles and future applications of optoelectronics technology
	光電概論及應用	E	3	3	瞭解光電技術之原理及未來應用
	Thermodynamics	E	3	3	(1) Understanding the relationship between energy and atoms (matter) (physical nature). (2) Understanding the relationship between chemistry and electrons (bonds) (chemical nature). (3) To understand the reaction energy and the mechanism of physical and chemical reactions. (4) To understand the four basic laws of thermodynamics (the zeroth Law, the first Law, the second law and the third Law) and their practical applications. (5) To understand the mechanism and practical application of the environment, heat and energy.
	熱力學	E	3	3	了解質量、能量、動量守恆意義，透過熱力學第一、第二定律之了解，對於物件之溫度平衡、散熱能有充分了解，並應用於日常之汽車引擎、飛機引擎、冷凍機循環之能量運算，使學生對能量有一充分認識。
	Cosmetic Modulation and Application	E	3	3	The courses will be taught in the basic cosmetics manufacturing profession and practice, which will cover the important theories of the preparation technology, evaluation technology and the essentials of the implementation of various preparation forms, so as to improve students' basic ability for the development of cosmetics.
	化妝品調製與應用	E	3	3	以基本化粧品製造專業及實務授課，內容涵蓋重要之調製技術理論、評估技術及各種調製劑型之製作要領，提升學生對於化粧品研發的基礎能力。
	Construction and practice of electronic products	E	3	3	Understand the construction principle and practice of electronic products.
電子產品構裝與實習	E	3	3	瞭解電子產品的構裝原理與實務	
產業實習課程 Industry Internship Program	Industry Practice Internship (1)	E	6	26	Before entering the workplace, students are provided with opportunities to understand the workplace ecology and apply what they have learned, so that they can experience and integrate the learning experience and practical application of various courses during the semester.
	產業實務實習(一)	E	6	26	學生入職場前，提供其瞭解職場生態，以及應用所學之機會，讓學生體驗並整合學期過程當中，各項課程學習心得的整合與實際應用。
	Industry Practice Summer Internship (1)	E	1	40	Before entering the workplace, students are provided with opportunities to understand the workplace ecology and apply what they have learned, so that they can experience and integrate the learning experience and practical application of various courses during the semester.
	產業實務寒暑期實習(一)	E	1	40	學生入職場前，提供其瞭解職場生態，以及應用所學之機會，讓學生體驗並整合學期過程當中，各項課程學習心得的整合與實際應用。
	Industry Practice Internship (2)	E	6	26	Before entering the workplace, students are provided with opportunities to understand the workplace ecology and apply what they have learned, so that they can experience and integrate the learning experience and practical application of various courses during the semester.
	產業實務實習(二)	E	6	26	學生入職場前，提供其瞭解職場生態，以及應用所學之機會，讓學生體驗並整合學期過程當中，各項課程學習心得的整合與實際應用。
	Industry Practice Summer Internship (2)	E	1	40	Before entering the workplace, students are provided with opportunities to understand the workplace ecology and apply what they have learned, so that they can experience and integrate the learning experience and practical application of various courses during the semester.
	產業實務寒暑期實習(二)	E	1	40	學生入職場前，提供其瞭解職場生態，以及應用所學之機會，讓學生體驗並整合學期過程當中，各項課程學習心得的整合與實際應用。
	Industry Practice Internship (3)	E	6	26	Before entering the workplace, students are provided with opportunities to understand the workplace ecology and apply what they have learned, so that they can experience and integrate the learning experience and practical application of various courses during the semester.
產業實務實習(三)	E	6	26	學生入職場前，提供其瞭解職場生態，以及應用所學之機會，讓學生體驗並整合學期過程當中，各項課程學習心得的整合與實際應用。	