

106 學年度第 2 學期第 1 次 校課程委員會議

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各系(所)中心新增課程中英文摘要

一、語言中心

彩妝日文

2 選

指導學生熟悉彩妝日文用語，學習在彩妝領域常用場景之表達方式，以達到在買賣彩妝或使用彩妝用品說明時之溝通能力。內容包括：三大品詞活用與句型之傳授及練習，並使用自製教材、日文影片等輔助教學。本課程不僅是語言之學習，在彩妝領域溝通表達以及彩妝禮儀也列入談論，期使學生擁有正確日語表達能力外也兼具彩妝知識及國際觀。

Learning Japanese: cosmetics and skin care

2 E

This course is to improve the ability of Japanese conversation for the students in the scenes of the cosmetic field. Students will learn how to introduce makeup products during a transaction or when using those makeup products in Japanese. The contents will include how to use words in three classifications, learning and practicing in sentence pattern. The self-made materials and videos in Japanese will be provided. Not only do students learn the Japanese language but they also have the knowledge of the communication and etiquette in the field of cosmetics. The goal of this course is to provide the students the exact expression ability of Japanese language, the knowledge of the cosmetics, and the most important thing “the international outlook”.

觀光日文

2 選

指導學生熟悉觀光日文用語，學習在觀光領域常用場景之表達方式，以達到在赴日觀光或從事觀光旅遊業時之溝通能力。內容包括：三大品詞活用與句型之傳授及練習，並使用自製教材、日文影片等輔助教學。本課程不僅是語言之學習，在觀光領域溝通表達以及觀光禮儀也列入談論，期使學生擁有正確日語表達能力外也兼具觀光知識及國際觀。

Tourism Japanese

2 E

This course is to improve the ability of Japanese conversation for the students in the scenes of the tourism field. Students will learn how to introduce scenic spot during a transaction or when using those take a trip in Japanese. The contents will include how to use tourism words in three categories and learning and practicing in sentence pattern. The self-made materials and video in Japanese will be provided. Not only do students learn the Japanese but they also have the knowledge of the communication and etiquette in the field of tourism. The goal of this course is to provide the students the exact expression ability of Japanese, the knowledge of the tourism, and the most important thing “the international outlook”.

動漫日文

2 選

指導學生熟悉動漫日文用語，透過探討日本動畫，加深對日本文化了解與知識。並了解日本文化對日本國內外社會，經濟，文化上帶來的影響。內容包括：三大品詞活用與句型之傳授及練習，並使用自製教材、日文影片等輔助教學。

Learning Japanese through Comics and Animations

2 E

This course is to improve the ability of Japanese conversation for the students in the scenes of the comics' field. It's also important to deepen the understanding and knowledge of Japanese subcultures through the discussions of Japanese comics. Also understanding the influences Japanese and international society, the economy and culture have towards Japanese subcultures.

二、農學院

(一) 農學院：

神農大師講座

2 選

本課程旨在介紹農業全球性之發展現況及未來展望、農業研究方法、農企業經營策略及管理、海外營運模式及現今關注的農業議題，將邀請 15 位產官學不同領域專家，借重其專業或產業經驗，激盪農業發展新思維，為本校學生引領目前最新的農業產業趨勢。在與神農大師講座的互動過程中，不僅可以學到標竿企業經營的獨到之處，並可認識業界的人脈網路拓展，對專業領域或生涯規劃將有極大幫助。

Agricultural Master Lectures

2 E

The aims of this course will introduce the students to the latest trends of agricultural industries, sharing the current advantages and disadvantages of agricultural development in Taiwan, agricultural research and development methods, and business operations. Agri-business strategy and management, oversea operating models and global agricultural issues will be emphasized. A total of 15 agricultural experts from different fields will be invited during the semester. By interacting with Agricultural Masters, students will gain knowledge not only on the uniqueness of business operations, but also can widen their social interactions in the industry, so to greatly help increase their professional knowledge and career planning.

(二) 植物醫學系：

微生物發酵技術

1 選

微生物發酵技術為生技產業的重要平台，本課程將針對微生物發酵技術之類別、特徵與應用領域進行系統性介紹，使學生明瞭應用於農業之微生物菌種及其發酵工程之特點，另外，本課程也將介紹發酵工程中常使用之設備和液態與固態之發酵系統，最後課程將介紹發酵工程之後處理及產物提取之技術。本課程將使學生獲得微生物發酵技術之概念，有助於將來微生物製劑之開發以及其應用於植物病蟲害之防治。

Microbial fermentation technology

1 E

Microbial fermentation technology is an important platform for the biotechnology industry. This course will introduce the categories, characteristics and application of technologies used in the process of fermentation. Students will know how to use and apply particular agricultural microorganisms in specific processes. This course will also introduce equipment that is commonly use in the fermentation industry, emphasizing in the liquid and solid state of fermentation systems. Lastly, final product extraction and post-fermentation treatment will be introduced. With the concepts learned in this course, students are expected to develop biological control for pest control.

微生物發酵技術實習

1 選

本實習課程除了將建立學生對微生物發酵工程之概念外，更讓學生學習無菌操作、菌種分離與篩選技術、液態與固態發酵之操作、菌量生長測定與取樣及分析等技術。另外，

課程中也將使學生利用原位滅菌 SIP 生物反應器進行培養液配製與微生物培養操作，最後配合噴霧乾燥技術進行發酵產物之濃縮。本課程將邀請業界專家共同講授與示範，此將有助於學生了解業界之實際操作，將學校所學之專業知識與產業接軌，使學生在微生物發酵技術上之操作更加純熟。

Practice of microbial fermentation technology 1 E

This course will develop the deeper understanding of both concepts and skills in fermentation engineering. These include skills in aseptic manipulation, microbial isolation and screening, microbial growth and sampling and analysis, and technologies in liquid and solid state of fermentation. In addition, this course will allow students hand-on experience in using steam-in-place (SIP) bioreactor for culture solution preparation, and harvesting the concentrated product by spray drying technology. Experts in this field will be invited to give lectures and demonstrations in lab. In such, students are given the opportunity to understand practical operation management in industry. With the combination of knowledge gained in class, students in this course will be mastering their skills well.

微生物製劑

1 選

本課程主要講授關於微生物製劑的基本概念。課程內容主要涵蓋標的微生物之篩選、微生物製劑之劑型介紹、配製方法與成分、界面活性劑介紹、微生物製劑法規介紹、微生物製劑之使用方法、時機與成效、微生物製劑之品管方式等。

Microbial Agent

1 E

Purpose of this course is to understand the basic concept about biocontrol agents. Contents include introduction, microbial selection, agent formulation, ingredients preparation methods, surfactant, and quality control, instructions, opportunity, effectiveness, and regulation of biocontrol agent.

(三) 動物科學與畜產系：

反芻動物健康與管理 2 選

介紹反芻動物從出生至上市這段期間如何維持並改善泌乳反芻動物的健康與管理，包含腳蹄健康及繁殖障礙排除、常見代謝性疾病的預防、乳房炎防治、行為觀察及牧場環境設施等，藉由講演、投影片及影片的放映，使學生能夠對反芻動物的健康與管理有深入的瞭解。同時使學生認知經營反芻動物須具備行為觀察判斷動物生理健康狀況及改善環境設施的知識及能力，在兼顧動物福利的原則下提升牧場的經濟效益。

The Health and Management of Ruminant 2 E

The course is focus on how to maintain and improve the health and management of ruminant from born to market. This subject is associated with healthy foot, reproductive disorder exclusion, metabolic disease prevention, behavior observation and pasture environment facilities design, etc. For students to realize the importance of the healthy ruminant and farm management, the lecture, power point, textbook and movies are employed. Meanwhile, under the principle of animal welfare and increase economic effect, students need to possess the preliminary knowledge of behavior observation and ability to assess the

health situation of ruminant and to improve the farm facilities after finish this course.

反芻動物健康與管理實習 1 選

本實習課程主要目的是使學生了解反芻動物健康對牧場經營之重要性，如生長發育之營養條件、體態評分與行為觀察、配種適期與人工授精、懷孕診斷與產後子宮復舊、擠乳設備與乳房炎防治、常見代謝性疾病的認知與預防、用藥時機與淘汰機制等，透過實務操作，發掘問題，解決問題，以達到酪農場經營管理最大效益。

The Health and Management of ruminant Practices 1 E

The purpose of this internship course is to enable students to understand the importance of ruminant health to ranching operations. For example, nutritional conditions for growth and development of ruminant, observation of body scores and behaviors, appropriate mating duration and artificial insemination, diagnosis of pregnancy and postpartum uterine involution, treatment of milking equipment and mastitis, recognition and prevention of metabolic diseases, timing of drug use and elimination mechanism, etc. Through practical operations, we will explore problems and solve problems to achieve the maximum benefits of operating and managing ruminant farms.

(四) 生物科技系：

生物科技與六級農業 3 選

生物科技應用範圍涵蓋農業，隨著六級農業的推廣兩者間相輔相成，不但可以協助一級農業的生產，提升二級農業的加工，更能透過三級農業的服務擴散效益，讓同學在往後的基礎課程中可以明白生物科技的重要與未來。課程中將增加學生操作與互動課程增加上課內容的活潑性。

The Sixth Industrialization for Biotechnology and Agriculture 3 E

The application of biotechnology covers agriculture, with the promotion of the sixth industrialization for complement each other, how to help the production of primary agriculture, improve the processing and distribution, and also provide benefits to the students through the diffusion of benefits from agriculture. After this course, students can understand the importance and future of biotechnology. Courses will increase student activity and interaction courses to increase the liveliness of the content

生技食品產業論壇 0.5 選

消費者追求健康之意識高昇，促使生技食品產業市場快速發展。本論壇將邀請產業專家代表，以目標市場之生技食品產品趨勢、商機拓展及食品機能為主題，能讓參與同學洞悉最新市場現況，認識生技食品相關企業，為進入就業市場預先準備。

Consumer health consciousness 0.5 E

Consumer health consciousness has dramatically increased and rapid development of the biotech food industrial market recently. This forum will invite several industrial expert representative, focus on the topics about market trends, business opportunity and physiologically functional biotech-food. Participants will learn a lot of current marketing, understanding the top company, and preparing advance before employment market

生技美妝品產業論壇 0.5 選

全球美妝品市場持續擴展，相關技術及商業模式均不斷創新。為能提供最新生技美妝品之產品趨勢及市場脈動，本論壇將邀請經驗豐富之產業專家代表，分享，現代生物科技美妝品如何在市場中佔得一席之地之成功案例。

Bio Beauty Industry Forum 0.5 E

Due to global cosmetics market continues to expand, both core techniques and business model constantly bring forth new ideas. To provide the latest commercial product trends and market pulse of biotech-cosmetics, this forum will invite distinguished experienced industrial expert representative and introduce success case of the novel biotech-cosmetics

主題演講 0.5 選

本主題演講擬邀請在新穎生技食品及生技美妝品領域之學研專家，分享創新研發靈感以及如何將研發數據轉譯為商品化之歷程，藉此能讓同學全面了解新穎生技產品如何從無到有，終能進入市場。

Keynote Speech 0.5 E

The special topic will invite science and technology advisors, share their experiences on innovative research and development inspiration and how translate the RD data to commercial products. In this way, students can fully understand how new biotechnology products can come from scratch and eventually enter the market.

生技產業法規 0.5 選

生技產業蓬勃擴展下，帶動相關法規之建立及修訂，政府已陸續通過部分法規並持續制定新法規。本課程將邀請法規專長教師及法界人士共同授課，介紹與生技各產業領域中相關法規，涵蓋智財、技術、製造及行銷，能讓同學了解在產業中須遵守之法律規範，有助奠定進入業界工作的紮實基礎。

Biotechnology Industry Regulations 0.5 E

The biotechnology industry is booming and strongly drive the establishment and revision of relevant laws and regulations. The government has gradually passed some laws and regulations and continues to formulate new regulations. This course will invite the law profession teachers and experts to teach together, topic including intellectual property, techniques, manufacture and marketing. The participating students will understand the related laws or regulations need to obey and establish the solid basis for working in the industry

微生物發酵技術 1 選

微生物發酵技術為生技產業的重要平台，本課程將針對微生物發酵技術之類別、特徵與應用領域進行系統性介紹，使學生明瞭應用於農業之微生物菌種及其發酵工程之特點，另外，本課程也將介紹發酵工程中常使用之設備和液態與固態之發酵系統，最後課程將介紹發酵工程之後處理及產物提取之技術。本課程將使學生獲得微生物發酵技術之概念，有助於將來微生物製劑之開發以及其應用於植物病蟲害之防治

Microbial fermentation technology 1 E

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(五) 食品科學系：**食品加工特論與實習 3 選**

本課程聘請不同食品加工專長之學者專家，講授食品產業之最新研究與發展，其中包括微生物醱酵、保健食品、乳品加工、肉品加工等，並依照授課內容，提供學生實作實習或業界參訪之活動，讓學生能將課堂所習之食品加工知識與技術，實際動手應用於產品製作或親身體驗食品產業的運作

Special Topics and Practical Training in Food Processing 3 E

This course will invite various scholars or specialists with different specialties of food processing to teach the most recent research and development of food processing. The topics may include, but not limit to, microbial fermentation, health foods, dairy processing, meat processing, etc. In addition to lecture in the classroom, the lecturer will also provide students with hand-on practice in the lab or field trip to visit food industry. This course will allow students to utilize the knowledges and techniques learned in classroom for actually hand-on application of food manufacturing in the lab or to visit food industry personally to observe and experience different technologies in food factories

全球食品科技與產業特論 2 選

本課程將會邀請產官學界在食品生物技術、應用微生物、食品化學、儀器分析、食品加工及技術研發的專家擔任講員，分享其學識與工作經驗，本課程的目標之一是提供學生深入了解國際上目前最受矚目的生物、化學、物理、加工、食物保存、食品品質評估、公共衛生、食物運用等議題

Special Topics in Global Food Technology and Industry 2 E

Speakers specialized in Food Biotechnology/Applied Microbiology, Food Chemistry/ Instrumental Analysis, and Food Processing/Technology Development from industry, government or university will be invited to share their knowledge and working experiences. One of the objectives is to give students an in-depth understanding of the most global concerns in biological, chemical, and physical sciences to the processing, preservation, quality evaluation, public health aspects, and utilization of foods

食品安全特論 2 選

近年來，伴隨著國際間飲食種類多元且豐富，消費飲食水平節節升高，消費者除追求食物的色、香及味以外，更在乎的是「吃的健康」及「吃的安全」，但經翻閱近年食品安全事件簿，如：美國牛肉施打瘦肉精「萊克多巴胺」、水產養殖魚類施予「孔雀石綠」、「三聚氰胺」混充奶粉氮含量、「塑化劑」替代起雲劑用於果汁飲料等重大震驚社會之食安事件，禁止使用之動物用藥及有毒物質製成食品，消費者首要關心的是食用後是否有立即性的危害？長期食用是否導致疾病？可承擔的風險為何？為了解決這一連串的問題，[食品安全]的議題應運而生。本課程之目標是提供修課學生深入淺出了解：(1)食品安全如何在未來社會上扮演舉足輕重的角色；(2)食品安全如何保護人類健康；(3)將食品安全與風險評估、風險溝通與風險管理的科學知識結合，應用於提昇人類的生活品質

Special Topics in Food Safety 2 E

Recently, there is more and more various styles diet interacting around the world. Consumers not only care the delicious, good looking of food, but pay more attention on health and food safety. Some big troubles like Malachite Green in fish product and Ractopamine in US beef attack the economy and the confident of people in food industry. People care about what are the hazards in food? Causing disease? Risk? Food safety issue is becoming more important nowadays. Our aim of this course to provide the students with in-depth and comprehensive scientific knowledge in the areas of (1) Food safety play the dual role in society; (2) How food safety improve human health?; (3) Food safety and risk assessment, risk communication and risk management are combing to improve the life quality of people

(六) 食品科學系科技農業組：

消費者行為學 2 選

消費者行為是一門以消費者活動為研究對象的學科。主要在「探討消費者如何制定和執行其有關產品與服務之取得、消費與處置決策的過程，以及研究有哪些因素會影響這些相關的決策」。其涵蓋的範疇包括與購買決策相關的心理和實體的活動。主要課程內容則包括：消費者的資訊處理與決策、消費者動機、人格特質、生活型態、價值與人口統計變數、文化、參考群體、家庭、社會階級、創新擴散與情境因素、及消費者溝通等

Consumer Behavior 2 E

Consumer behavior is a subject study based on consumer activities. This course explores to study how consumers develop and implement products and service related to the acquisition, consumption and disposal decision-making process, as well as understanding of what factors affect these decisions. The scope covers all psychological and physical activities associated with purchasing decision. Main content included: consumer information processing and decision-making, consumer motivation, personality, lifestyle, values and demographic variables, family, social class, culture, reference groups, diffusion of innovation and contextual factors, and consumer communication.

包括自然水之性質與組成、水中氧化還原平衡、水中錯合作用、水中化合物之催化作用、液-固-氣之相互作用、水污染與處理、簡易環境化學分析、地層與土壤環境化學、大氣性質與組成、氣態無機污染物及氧化物、顆粒物質、光化學煙霧、大氣監測、有機污染物、自然資源與能量、環境生物學與毒物化學、以及有害廢棄物之性質、來源與其環境化學。

The concept of automatic technique 2E Lin, Yi-Hong ,S

The objectives of this course will train students with the practical concepts and knowledge of industrial robot arm technique. The contents of practical learning are focused on robot application learning and design. The application topics of practical learning subjective are as follows:

1. Robot arm with force sensor technique.
2. Robot arm with vision sensor technique
3. Robot arm applied to 3D measurement technique
4. Robot arm applied to ensemble technique
5. Robot arm applied to deep processes in the agricultural products

(三) 車輛工程系：

機器人的手臂控制系統與實習

3選

楊榮華

下

本課程將介紹機器手臂之類型、運動學、動力方程式、控制系統設計等單元，並透過實體機器手臂的操作，讓學生更了解機器手臂控制系統理論與實務之結合。另外，學生亦可藉由本課程之學習，熟悉關於機器手臂之感測元件及控制介面之設定、控制演算法之撰寫、以及工業應用之基礎。

Control system design and practice for robotic manipulators 3 E J.H.Yang S

This subject is to introduce the fundamentals of robotic manipulator control systems, including the working types of robotic manipulators, the relevant kinematics, dynamic equations, and control system designs. It is expected, through the practical instrumental operation, the students could realize how the control systems are linked theoretically and practically. On the other hand, during the course study, the students could gain the capability of system setup for sensing device and control interface, programming of control algorithms, and simple industrial applications.

(四) 生物機電工程系：

機電整合概論

2選

李經緯

上

本課程介紹機電整合(智慧機電系統)的技術以及將該技術應用於智慧機電整合系統設計所需的技術。主題包含：電子A/D, D/A轉換器，運算放大器，濾波器，功率器件；程式設計，事件驅動程式；硬體和直流步進電機與強健之感測系統。

Introduction to Mechatronics

2E

C. W. Lee

F

Introduces technologies involved in mechatronics (Intelligent Electro-Mechanical Systems) and the techniques necessary to apply this technology to mechatronic system design. Topics: electronics A/D, D/A converters, op-amps, filters, power devices; software program design, event-driven programming; hardware and DC Stepper Motors and robust sensing system.

電腦視覺應用與實習

1選

李文宗

上

本課程介紹計算機視覺，包括圖像形成基礎，相機成像幾何，特徵檢測與匹配，立體視覺，運動估計與追蹤，圖像分類，場景理解以及神經網絡深度學習。

Computer Vision Application and Practice

1E

W. T. Lee

F

This course provides an introduction to computer vision, including fundamentals of image formation, camera imaging geometry, feature detection and matching, stereo, motion estimation and tracking, image classification, scene understanding, and deep learning with neural networks.

四、管理學院

(一)財務金融國際學士學位學程：

財經媒體英文 2 選

本課程旨在協助同學提升財經專業英文之閱讀及聽力。主要內容包括重要專業財經英文報章雜誌之選讀以及主要影音媒體財經新聞評論之報導聽力訓練等。

Finance & Economics Media English News Reports 2 E

This course aims to assist student to improve their reading and listening to finance & economics media news reports. The major contents include the selected readings of professional finance & economics journals or magazines and the listening training of major audio/video media news reports.

(二)工業管理系：

實務專題、實務專題(1)、實務專題(2)

(1)為鼓勵學生將課堂所學的知識積極從事實務專題研究，以提升實務專題製作能力，使學生兼具專業學理基礎與動手做之能力，特舉辦實務專題競賽，來激發學生的創意巧思。(2)藉由實務專題成果展示與觀摩，提供師生展現成果及相互切磋之機會，促進成功經驗交流，以加強學生專業技能素養。

Special Projects、Special Projects(1)、Special Projects(2)

(1) to encourage students to learn the knowledge in the classroom to actively engage in practical research, to enhance the practical thematic production capacity, so that students both professional basis and hands-on ability to do, organized special practice contest to stimulate students creativity think. (2) To showcase and observe the results of practical projects, to provide teachers and students with the opportunity to showcase their achievements and promote mutual exchange of successful experiences so as to enhance students' professional skills.

符合核心能力

- 1.運用工業管理、工程與資訊技術解決產業問題之能力。
- 2.系統分析與規畫行動方案之能力。
- 3.系統整合與溝通協調之能力。
- 4.運用基本外語與人互動及撰寫工管專業報告之能力。
- 5.兼具個人執行與組織向心之能力。
- 6.運用工管專業知能研發創新之能力。

適用 105-106 及 107-110 學年度課程規劃。

智慧 IE 與數據科學與實作(1)

本課程主要在針對行銷與物流儲運這兩個重要主題分別進行智慧化 IE 管理數據搜集與處理以及透過資料的科學分析方法產生規劃或決策的內容講授。課程中將輔以企業問題診斷、實作、系統應用說明或實地參訪等方式豐富學生學習的內容。

Theory and practice of Intelligent IE & Data Science (1)

The principal objective of this course is to introduce the application of intelligent IE and data science on marketing and logistic. This course includes case study, corporate visit, practical problem solving, and emphasizes hands-on experience of system design and application.

符合核心能力

- 1.運用工業管理、工程與資訊技術解決產業問題之能力。
- 2.系統分析與規劃行動方案之能力。
- 3.運用工管專業之能研發創新之能力。

適用 105-106 及 107-110 學年度課程規劃。

感測技術與實作工作坊

本課程主要在透過講授、演講或實作等方式，教授學生工業 4.0、物聯網等相關的知識與概念，以及物聯網各種數據搜集、感測與通訊技術及方法，使學生具備智慧化數據資料搜集、感測與通訊傳輸之能力。

Workshop of Sensing Technology

The objective of this course is to give the concept and theory of industry 4.0, internet of things (IoT), sensing and navigation technology by lectures, speeches, practices and discussions, and is to train students with the ability of collecting and analyzing data.

符合核心能力

- 1.運用工業管理、工程與資訊技術解決產業問題之能力。
- 2.系統分析與規劃行動方案之能力。
- 3.運用工管專業之能研發創新之能力。

適用 105-106 及 107-110 學年度課程規劃。

智慧 IE 與數據科學與實作(2)

本課程為智慧 IE 與數據科學與實作(1)的延續性課程，本課程主要在針對生產管理及品質管理這兩個重要主題分別進行智慧化 IE 管理數據搜集與處理以及透過資料的科學分析方法產生規劃或決策的內容講授。課程中將輔以企業問題診斷、實作、系統應用說明或實地參訪等方式豐富學生學習的內容。

Theory and practice of Intelligent IE & Data Science (2)

This course mainly goes with theory and practice of intelligent IE & data science (1) as a supporting course. The principal objective of this course is to introduce the application of intelligent IE and data science on production and quality management. It includes case study, corporate visit, practical problem solving, and emphasizes hands-on experience of system design and application.

符合核心能力

- 1.運用工業管理、工程與資訊技術解決產業問題之能力。
- 2.系統分析與規劃行動方案之能力。
- 3.運用工管專業之能研發創新之能力。

適用 105-106 及 107-110 學年度課程規劃。

產業應用與研習活動工作坊

本課程為智慧 IE 與數據科學與實作(1)、(2)的延續性課程，本課程將透過講授、演講或參訪等方式，進行智慧 IE 與數據科學之整體架構設計及實際案例的說明，使學生能更加了解課程主題在產業實務的應用現況。

Workshop on industrial applications of intelligent IE & data science

This course mainly goes with theory and practice of intelligent IE & data science (1) and (2) as a supporting course. The objective of this course is to train students in familiarizing and utilizing the theory and principles of intelligent IE and data science for practical application by lectures, speeches, case study and corporate visit.

符合核心能力

- 1.運用工業管理、工程與資訊技術解決產業問題之能力。
- 2.系統分析與規劃行動方案之能力。
- 3.運用工管專業之能研發創新之能力。

適用 105-106 及 107-110 學年度課程規劃。

3D 繪圖創意及應用

本課程主要的精神為精實生產的創新及創意實踐，而精實的創新及創意的精神即為能快速反應市場客戶的需求。為能達成此一目標，創新需要由 3D 的構圖實踐，在構圖後，將教導學生如何有效結合 3D 列印機的機能快速且低價的將其構想實體化，以能探討設計與實體的落差；經過改善將能使創新及創意快速且精準地達成市場需求。

故本課程除基本的學習 3D 繪圖外，也將教導 3D 列表機的參數設計及列印限制，以提高設計圖列印成 3D 模型的效率，並由此了解該如何修正創新創意去製造出符合製程能力限制的實用產品。

Innovation and Applications of 3D Drawing

The main spirit of this course is the innovation and creative practice of lean production, and the spirit of lean innovation and creativity is to quickly respond to the market customers. In order to achieve this goal, the innovation skill is the use of 3D composition software. After the innovation idea is shown by the 3D composition, students will be taught how to effectively combine the functions of 3D printers to materialize their ideas quickly and cheaply so that the gap between design and entity can be explored. Such combination of 3D composition and 3D print will enable innovation and creativity to quickly and accurately achieve market demand.

Therefore, in addition to the basic learning of 3D drawings, this course will also teach both the optimal parameter design and the printing restrictions of the 3D printer to efficiently print out a 3D models that can fully express the idea of 3D drawing.

符合核心能力

- 1.運用工業管理、工程與資訊技術解決產業問題之能力。
- 2.系統分析與規畫行動方案之能力。
- 3.系統整合與溝通協調之能力。
- 4.兼具個人執行與組織向心之能力。
- 5.運用工管專業知能研發創新之能力。

適用 105-106 及 107-110 學年度課程規劃。

產業參觀及實務

本課程主要的目的是讓學生能了解生產現場的環境及狀況，觀察推式生產及拉式生產造成生產現場的差異，還有現在生產現場精實生產的基本功夫 5S、標準化、TPM 等的推行對公司運作的影響。本課程將帶領學生參觀現在台灣不同產業的生產線場，除了上述幾個描述的參觀重點外，藉以了解各不同產業別精實生產執行的差異與共通點，以期學生未來能將精實落實在不同的生產環境中。本課程也將搭配 VR 教學，在教室就讓學生反覆觀察參觀過的現場，或較危險的生產場域，提升本課程學習績效。

Gemba Walk and Analysis of Industries

The main purpose of this course is to enable students to understand the environment and conditions of the production site, to observe the differences between the production site caused by push-type production and pull-type production, and, moreover, the impact on the company's operations after promoting the basic techniques of lean production such as 5S, standardization, TPM and etc. This course will lead the students to visit the production lines of different industries in Taiwan. In addition to the above-mentioned several visits, we will learn about the differences and common points of various industries in the implementation of lean production, so that students will be able to implement the lean in different production environments in the future. This course will also be combined with VR teaching. Then, students will be allowed to repeatedly observe the site they have visited, or the more dangerous production field, in the classroom to enhance the learning performance of the course.

符合核心能力

- 1.運用工業管理、工程與資訊技術解決產業問題之能力。
- 2.系統分析與規畫行動方案之能力。

- 3.系統整合與溝通協調之能力。
- 4.兼具人文關懷與工管專業倫理之素養。
- 5.運用基本外語與人互動及撰寫工管專業報告之能力。
- 6.兼具個人執行與組織向心之能力。
- 7.運用工管專業知能研發創新之能力。

適用 105-106 及 107-110 學年度課程規劃。

特色產業概論

本課程結合校內在台灣具有先進技術的學科，木工設計系及動畜科學系，首先要讓學生了解這些產業的背景及文化，還有台灣這些產業現在的競爭力、優勢及經營上面臨的問題，及想要達成的績效。透過工業管理系的基礎學科理論，將精實思維運用並結合在特色產業的效益提升。

學生能在此課程上學習如何能更深入地與產業互動，了解產業的需求與課堂知識的落差，並需要在產業蒐集那些資訊來結合精實生產的專業知識以落實產線升級的效果。

Introduction to Characteristic Industries

This course works with the famous departments in NPUST, the department of Wood Science and Design and the Department of Animal Husbandry and Veterinary. First of all, students should understand the background and culture of the industries in Taiwan related to these two departments, as well as the current competitiveness, advantages, operational problems and the performance wanted to achieve of these industries. This course will apply basic disciplines and theories of Industrial Management to connect different industry characters of wood science and animal husbandry and veterinary, and finally implement and combine those industry characters with lean concept and thinking to promote industry effectiveness and efficiency.

In this course, students can learn how to interact more deeply with the industry and understand the gap between industry needs and classroom knowledge. Students also need to learn how and what information they should collect from the industry when they want to implement the lean production to upgrade the performance of a production line.

符合核心能力

- 1.運用工業管理、工程與資訊技術解決產業問題之能力。
- 2.系統分析與規畫行動方案之能力。
- 3.系統整合與溝通協調之能力。
- 4.兼具人文關懷與工管專業倫理之素養。
- 5.兼具個人執行與組織向心之能力。
- 6.運用工管專業知能研發創新之能力。

適用 105-106 及 107-110 學年度課程規劃。

(三)企業管理系：

商業智慧應用概論 3選 廖世義/鄭文英/王韻

商業智慧泛指綜合蒐集、儲存、分析以及存取企業商情資料以提供企業做出數據化決策。本課程包含資料倉儲模型的介紹與建置、企業各應用功能領域的關鍵指標介紹，以及資料探勘相關應用的介紹。另外本課程也會教授 Excel 的大數據分析之樞紐分析表，學習大量資料處理與分析的概念，涵括資料的排序、篩選、群組小計、多張工作表的彙整運算，到資料表(Data Table)與傳統報表的分辨與解析，正確的使用報表與資料表。再藉由樞紐分析表與樞紐分析圖工具的學習使用，製作各種目的與需求的交叉分析彙算報表及圖表。研習並操作實務案例，即使完全不熟悉樞紐分析表，也能夠即刻上手，養成摘要報表篩選與資料分析彙算的能力。

Business Intelligence 3 Liaw, Shu-Yi/ Wen-Ying Cheng/ Yun Wang

English Course Description The course focuses on how to collect, store, retrieve and analyze business data from enterprise information system for making business decisions based on integrated data sources. It includes introducing the skills of

dimensional data modeling for building data warehouses, the key performance indexes for major business function departments, and other data analyzing tools. In addition, this course will also teach Excel's pivot analysis for big data analysis. Data processing and analysis concepts are mentioned, including data sorting, screening, group subtotals, multiple worksheets, and operations, data table and the traditional report analysis, the correct use of reports and data tables. The problems can be solved through use of analysis table and pivot analysis chart tool, a cross-analysis of the various purposes and the combination of different reports and charts. By studying and operating practice cases, students can start immediately to develop the ability to filter summary reports and analyze data even if students are completely unfamiliar with the pivot analysis table.

大數據分析的行銷應用 3 選 廖世義/劉書助

本課程目的在使學生了解商業數據分析的基礎概念與資料庫行銷的應用，以掌握行銷市場預測的有效前測，透過跨產業資料探勘標準流程與模式的建立，進行有效的模式效能評估，提供即時的商業分析以支援精準的目標行銷，建立預防顧客流失的預測模式，有助於社群網站與口碑行銷的有效經營。本課程實務與理論並重，學理部分將說明資料探勘技術在商管領域的應用，其中包含購物籃分析(網拍購物車)、分群技術(消費傾向分群)、決策樹演算法(信用卡申請預測)、鑑別分析(消費者指紋辨識)、資料預測與羅吉斯迴歸(線上零售業)、文字探勘與網頁探勘(時事議題分析)等商業應用。實務部分將以上機實作方式進行個案公司的實際數據分析，以熟悉資料探勘軟體的應用及 R 語言程式的撰寫練習，並以社群口碑資料庫進行網路口碑及線上輿情分析的資料探勘。

Big Data Analysis in Marketing Application 3 Liaw, Shu-Yi/ Shu-Chu Liu

The purpose of this course is to help students to understand the basic concepts of business data analysis and applications in marketing. In order to get effective marketing forecast, through creating a standard process of data exploration industry and effective assessment method of model, providing real-time business analysis to support marketing target, preventing customers' loss, contributing to the community website and effective word of mouth marketing. This course has both theory and practice. The theoretical part will explain the applications of data exploration technology in business management field, including shopping cart analysis (shopping cart), clustering analysis (grouping consumption tendency), decision tree algorithm (credit card application), identification analysis (consumer fingerprint identification), regression analysis (online retail), text survey and web exploration (current affairs issues analysis) and other commercial applications. The practical part is analysis implementation of actual cases of company's database, familiar with applications of data exploration software and R program software. And, applications in database of online community reputation and online data exploration will be mentioned.

社群與口碑行銷 1 選 賴鳳儀/賴志宗

社群媒體行銷是甚麼？就是在臉書開個粉絲頁找親朋好友來按讚嗎？還是開個直播在房間煮泡麵給大家看？甚麼才是有效的社群媒體行銷？本課程將從傳播、行銷、管理、社會與科技等各理論角度、建構社群策略與運用實務方式。本課程理論與實作並進，並將邀請業界專家分享經驗，一起「玩」出社群行銷新創意。

本課程分下列幾個單元主題：(1) 社群概論 (introduction to social network) (2) 話題與病毒行銷(buzz and viral marketing)(3) 社群商務與平台 (social network commerce and platform) (4) 社群經營概要 (basics to social marketing and management)、(5) 社群媒體行銷應用 (tips for rocking social marketing)。透過本課程，讓同學可更進一步認識社群商務應用趨勢，並透過分析案例、小組討論、小組作業的方式，從學生從使用者角度，進化為商業行銷者角度，充分理解社群行銷，以幫助同學進入職場能充分應用所學。

Social Marketing and WOM 1 elective Fong-Yi Lai/ Aaron Lai

What is social media marketing? Is it all about having “thumbs up” on FB? Or is it all about doing “live stream”? What are effective social marketing. This course designs to implement theoretical concept into practices, coordinate with practitioner in related fields, students are able to learn foundations of social marketing skills with fun. This course introduces five major topics: (1) introduction to social network (2) buzz and viral marketing (3) social network commerce and platform (4) basics to social marketing (5) tips for rocking social marketing. Students can have better understandings on social network commerce and application. Students can switch from social media user to social media marketing planner.

網路商務名人論壇 1 選 陳佳誼/賴鳳儀

本課程透過邀約成功的網路行銷企業主，進行網路與電子商務行銷商業模式以及行銷程論壇演

講。主題包括：商業資訊數位化、網路市場行銷與品牌塑造、網路行動通訊技術之行銷應用、網路購物與消費者行為、跨境電子商務應用。學生透過實務論壇，可將理論觀念與實務聯結，並從論壇的問答過程學習企業營運技巧與應用。

The E-Commerce Forum 1 elective Chia-Yi Chen/ Fong-Yi Lai

This course uses forum to introduce successful e-commerce entrepreneurs to share their practical experiences. Topics include: enterprise digitalization, internet marketing and branding, internet and mobile marketing, internet shopping and consumer behaviors, cross-border e-commerce application. From real cases forum, students are able to apply theories to practices, particularly enhance operation skills and implementations.

多媒體網頁設計工作坊 1 選 張慧珍/陳佳誼

網站建置是現今各種網路應用與行銷重要之一環，網頁內容的製作與多媒體方式的呈現與設計更是其中之精隨。本工作坊以開源免費之 WordPress 及其豐富外掛模組為工具，帶領學員從網站運作概念到實際完成建置，並輔以影音多媒體工具應用於內容呈現與網頁設計，期能幫助學員掌握網站建置之技能以應用於各領域。

Website and Multimedia Content Design 1 Huei-Jen Chang/ Chia-Yi Chen

Website construction is an important part of all kinds of network applications and marketing nowadays. The production of web contents including the design of multimedia presentation is essential for the task. This workshop uses the open sourced website builder WordPress and its various plug-in modules as the tool to lead students from the concept of how a website works to the actual completion of the construction, supplemented by audio and video multimedia tools for content presentation, thus help students master the website skills for use in various fields.

行動商務工具與生活應用 1 選 廖世義/許芳綱

隨著網際網路和行動科技的普及，商業行銷策略及消費者行為已產生相當大的改變。本課程從消費者角度出發，介紹各種日常生活中常見之行動商務工具及應用，並解說其背後牽涉之商業資訊技術與系統。課程主題包含：行動購物、訂票訂房、金融理財、交易支付、客戶關係管理等應用，並針對第三代行動商務對不同產業的創新服務進行個案教學與討論。

Mobile Commerce and Cases Study 1 Liaw, Shu-Yi/Fang_Kang Hsu

With the popularity of Internet and mobile technology, there have been considerable changes in commercial marketing strategies and consumer behaviors. This course starts from the consumer's point of view, introduces various kinds of mobile business tools and applications that are common in daily life, and explains the business information technologies and systems behind them. Course topics include: mobile shopping, ticket or hotel booking, financial management, mobile payment, customer relationship management, and other applications. Cases of the third generation of mobile business for different industries of innovative services will also be discussed.

自媒體經營與實作 3 選 蔡展維

自媒體經營為現今行銷管理中之一個重要實務概念，本課程透過課堂實作教授學生經營自媒體之技巧。課程內容主要包含商業攝影，影像後製，文案撰寫，行銷企劃等概念，幫助學生增進職場競爭力。

We Media management and practice 3 Tsai, Chan-Wei

We Media is a very important skill in marketing management, This course teach students main skills to management we media, included commercial photography, Post-Production, copy writing and marketing planning, so that students have the ability to manage we media to improve their competitiveness in the workplace.

商業攝影與影像後製 1 選 蔡展維

本課程以影像行銷的原理及原則為核心，針對商業攝影與影像後製等進行教學，使初學學生得

以使用這些技能增進其內容行銷與自媒體經營之能力，進而幫助學生增進職場競爭力。

Commercial photography and Post-Production 3 Tsai, Chan-Wei

This course fundamentally aims to introduce the basic skill about commercial photography and Post-Production. Students are expected to have basic ability to increase their ability of content marketing and we media, so that students have the ability to improve their competitiveness in the workplace.

行銷企劃與文案撰寫 0.5 選

在內容行銷中行銷企劃與文案撰寫是行銷管理的基本能力。此課程培養學生行銷企劃與文案撰寫基礎實務能力，藉由在學中所學理論與實作加以應用與實現。

Marketing planning and copy writing 3 Tsai, Chan-Wei

In content marketing , marketing planning and copy writing are very important skills. The goal of this course is to educate the basic ability of marketing planning and copy writing through learning theory and its applied skills.

商業視覺設計 1 選 蔡展維

本課程目的在使學生了解商業視覺設計的基礎概念與相關程式的應用，以提高行銷操作的實作能力。課程內容包括 Phototshop 與 Illustrator 等軟體的應用。

Commercial Visual Design 3 Tsai, Chan-Wei

The purpose of this course is to help students to understand the basic concepts of Commercial Visual Design and related program, so that students can raise their ability in marketing operating. The contents of this course will contain Phototshop and Illustrator

社群行銷 0.5 選 蔡展維

本課程目的在使學生了解社群行銷的基礎概念，以提高行銷操作的實作能力。並期望幫助學生獨立規劃社群行銷相關活動及曝光技法並瞭解網路社群公關媒體運作實務以熟悉社群網路經營分析應用。

Social Media Marketing 3 Tsai, Chan-Wei

The purpose of this course is to help students to understand the basic concepts of social media marketing,, so that students can raise their ability in marketing operating. The contents of this course will contain event in social media, PR operation and analysis of social media

企業資源規劃系統實務操作 1 選 許文西

本課程目的在於讓學生進行企業資源規劃系統實務操作，並輔以學理知識，讓學生了解企業資源規劃系統的在實務上的應用，透過系統模擬企業生產製造、進出貨的標準流程與模式建立，進行有效的生產、配銷、財務管理模組系統實務操作，其中包含生產製造管理、配貨銷售管理、財務管理等系統，在實務部分則以上機操作方式進行個案公司的實際數據分析，與系統導入演練，熟悉企業資源規劃的操作與應用。

Enterprise Resource Planning System Practice, 2 Hsu, Wen-Hsi

The purpose of this course is to enable students to carry out practical operation of the enterprise resource planning system, supplemented by the academic knowledge, to enable students to understand the application of the enterprise resource planning system in practice, and to establish a standard process and

model for simulating production, inbound and outbound shipments through the system. Conduct effective production, distribution, and financial management module system operations, including production and manufacturing management, distribution sales management, and financial management systems. In practice, student will be required to utilize the actual data analysis of case companies to familiarize with the operation and application of enterprise resource planning system.

企業資源規劃系統導入實務個案 1 選 許文西

本課程目的在於透過實務個案的研討，讓學生了解企業資源規劃系統在業界扮演的角色以及應用，和企業如何導入企業資源規劃系統，以及導入的方法，以提高企業資源規劃系統導入成功的機率。此課程將有助於學生了解，企業內部不同的功能部門其所對應的系統功能操作與所需解決的狀況問題等，讓學生在未來職場上，能全面了解作業現場狀況，以縮短學用落差。

Case Study of Enterprise Resource Planning System Implementation, 1, Hsu, Wen-Hsi

The purpose of this course is to provide students with an understanding of the roles and applications of the enterprise resource planning system in the industry. Through the discussion of practical cases, students will learn how they can implement the enterprise resource planning system and implementation methods to improve the probability of successful introduction of the enterprise resource planning system. It will help students understand the different functional departments within the enterprise and their corresponding system function operations and status problems that need to be resolved. This will enable students to fully understand job site conditions in the future in the workplace to reduce the gap between learning and practice.

企業資源規劃系統問題探索與分析 1 選 許文西

本課程目的在於，針對企業資源規劃系統(ERP system)導入及應用中所發生的問題，藉由問題導向學習(Problem Based Learning, PBL)，透過引導學生分析問題並從問題解決程序中獲得答案，本課程將培養學生分析問題和解決問題的能力。

ERP Problem Exploration and Analysis, 1, Hsu, Wen-Hsi

The purpose of this course is to guide students by problem-based learning (PBL) method to examine the problems when introducing ERP systems. By leading students to analyze the problems and to get answers from problem-solved procedure, the course will cultivate students the ability to analyze problems and to solve problems,

(四)資訊管理系：

資訊管理實習 2 選

本課程要透過實習，使學習者學習有關資訊管理之實務，以求理論與實務的結合。從實習的訓練中，同學可學習到管資訊理的工作態度、技能與知識。

Management Information Systems Internship 2 S

This course is designed to induce the business practices to the students who wish to understand the basic management concepts and information techniques, in order to integrating the theory and practice of management information systems. From the practical training, the students can learn about working attitude, skills and knowledge of the management information systems.

行動寬頻介接網路與 IOT 實務應用 3 選

隨著無線網路介接技術的不斷進步，行動通訊已邁入寬頻時代，從早期 GSM 的數十 kbit/s 的頻寬，晉升到 4G 的數十 Mbit/s，未來的 5G 預計將達到 Giga bit/s 的水準；同時許多新型態的通訊模式

與服務因應而生，我們所預期的將是一個無縫接軌(seamless)與無設限(limitless)的行動網路介接服務，本課程的主要目的就是介紹這些先進的行動寬頻網路介接技術的最新發展趨勢與應用。內容將包括 3G、4G、5G 的發展、small-cell 的介接技術、software-defined-radio network、self-organizing network、user-centric network；同時介紹一些物聯網(Internet-of-thing)的關鍵技術與創新的應用服務。課程中也將設計一系列實驗，包括 LTE/small cell QOE、RFID、iBeacon programming 等。

Introduction to mobile broadband access networks and IOT practices 3 S

Continue progress in radio access technologies brings forth a new era of mobile broadband communications. Evolution of bandwidth, from early stage GSM that operates in several kilo bit/s to the current 4G that operates in several mega bit/s, never stops. In the near future, 5G will promise a mobile channel even over giga-bit/s. Driven by this trend, new communication paradigms and services are emerging. The purpose of this course is to introduce mobile broadband access technologies and some state-of-art applications. Topics includes the evolution of 3G, 4G and 5G, small-cell access technologies, software-defined-radio networks, self-organizing networks and user-centric networks. Meanwhile, we will introduce some key technologies of Internet-of-thing (IOT) and investigate its deployment over mobile broadband networks. A series of labs will be provided, including LTE/small cell QOE、RFID、iBeacon programming.

影像辨識應用 3 選

本課程教學目標旨在訓練學生進行影像辨識程序的各種演算法，並應用在工業、商業、農業及醫療等產業，以培育學生具有獨立完成應用影像辨識技術解決真實問題的能力。課程內容涵蓋影像辨識基本概念、前處理、影像分割、色彩空間轉換、二值化、邊緣偵測、侵蝕膨脹、特徵萃取、各種辨識演算法及實務應用，進而提升學生影像辨識技術及實務應用能力。

Applications of Image Recognition 3 S

This course is designed for students who need general understanding of image recognition and its applications. We will begin with the introduction to the fundamentals and technologies of image recognition. Its applications in various fields, such as industry, agriculture, business, and medical, will also be discussed. This course covers the basic concepts, methods, and applications of image recognition. Students will be introduced to how programming language to solve real-world image recognition problems, such as image preprocessing, image segmentation, binary processing, color space conversion, edge detection, erosion and dilation, feature extraction, image classifier design, and practical applications. Other image recognition technologies and their applications may also be discussed.

機器學習實務與應用概論 3 選

本課程介紹了機器學習問題的統一處理解決方案。基本上，機器學習是寫程式來利用電腦使用過去的資料以及特製化的最佳化方法 (Optimization method)。舉例來說，人可以很輕易的辨識出任意的語言語意- 即轉換聲學語音信號到 ASCII code 等訊息，人類可以毫無困難地完成這個任務。然

而，解釋這是如何做到的並不是這麼容易。在機器學習中，要做到此件事情的方法是收集來自不同人的大量語音資料 (Samples)，並透過機器學習的方法，來學習將這些 Sample 映射 (Mapping) 到一個有語意的單字。本領域包含許多層面，例如，統計，模式識別，神經網絡，人工智能，信號處理，控制和數據挖掘等等，本課程將以概括性的解釋來對於目前常用且熱門的機器學習方法，並搭配程式實作的方式來增進同學之理解。

Introduction to Machine Learning: Applications and Practices 3 S

Machine learning uses several fundamental techniques such as statistics, linear algebra, optimization, and computer science skills to build the systems that can deal with large volumes of data at high speed to make predictions or decisions without human intervention. For example, human beings easily recognize semantic meaningful of speech signal (i.e., from voice to ASCII code) without any difficulty. It is relatively hard to deal with such task in a computer. In machine learning, it is necessary to map a large and collected training samples to a meaningful feature to recognize its semantic information. Machine learning as a field is now incredibly pervasive, with applications spanning from business intelligence to homeland security, from analyzing biochemical interactions to structural monitoring of aging bridges, and from emissions to astrophysics, etc. This class will familiarize students with a broad cross-section of models and algorithms for machine learning, and prepare students for research or industry application of machine learning techniques

實作

- 特徵描述與擷取實作
- 基礎線性分類器實作
- 非線性分類器實作 (SVM)
- 分群演算法實作 (k-means)

影像處理概論

3 選

本課程涵蓋影像處理的基本概念和方法，其重點將為影像基礎，空間和頻域影像增強，恢復，彩色影像處理，小波，影像壓縮，形態，影像分割，影像描述和影像識別。此外，本課程將涵蓋可能的影像處理相關應用。

Introduction to Image Processing 3 S

This course mainly includes the basic concepts and methods of image processing, which will focus on image fundamentals, image enhancement in the spatial and frequency domains, restoration, color image processing, wavelets, image compression, morphology, image segmentation, image description, and the fundamentals of object recognition. In addition, this course will cover possible image processing related applications.

雲端運算與分散式資料庫

3 選

本課程旨在提供學生對於基礎的分散式資料庫、雲端運算與大數據分析、以及以資料倉儲架構作為資料庫應用發展之平台技術有一完整堅實的教育。分散式資料庫是由(1)資料庫技術與(2)網路資料通訊技術兩部分融合而成的。本課程共分為以下十部份：(1)分散式運算與雲端運算基本概念；(2)分散式資料庫之功能；(3)分散式資料庫之失效復原；(4)分散式資料庫系統之並行控制；(5)分散式資料庫之查詢處理；(6)雲端運算；(7)資料探勘技術；(8)大數據分析；(9)資料倉儲；(10)分散式資料庫與農業 4.0 相關應用。

Cloud Computing and Distributed Database 3 S

This course provides the basis for a solid education in the distributed databases (DDBs), distributed database management systems (DDBMSs), and how the data warehouse architecture is used as a platform for database application development. The DDB technology emerged as a merger of two technologies: (1) database technology, and (2) network and data communication technology. It is divided into ten major parts: (1) distributed computing and cloud computing concept (2) transparency of distributed databases (3) failure recovery (4) concurrency control (5) query processing in distributed databases (6) cloud computing (7) data mining techniques (8) big data analytics (9) data warehousing (10) the related applications of agriculture 4.0 in distributed database.

金融科技概論 3 選

本課程是針對金融科技及新金融產品與服務的趨勢與發展，希望透過課程的介紹，幫助學生了解科技數位金融的發展原因及發展趨勢、金融科技實務，以及金融科技行銷組和策略在新科技的協助下如何發展出新的運作模式。

FinTech Introduction 3 S

The purposes of the “FinTech Introduction” are (1) to introduce the fundamental concept and domain knowledge of the related information technologies and financial services, (2) to learn the technology of the related information technologies, and (3) to introduce the business concerns of the creative financial services and new kind of implementations. After studying this course, the students should have the concepts of FinTech and the mechanisms of blockchains.

實作

- 行動支付機制
- 網路身份認證機制
- 區塊鏈原理應用

傳閱附件 1-5--本校各學院所屬各系(所)課程中英文摘要-人文暨社會科學院

五、人文暨社會科學院

(一)客家文化產業研究所：

飲食文化與餐飲創新

3 選

為提升本校研究生對客家餐飲產業的實務經驗，並掌握餐飲國際化發展趨勢，以增進個人對於客家客家餐飲產業發展趨勢之了解及提升客家菜國際化製作之水平。本課程重點有二：一是飲食文化與文化傳播，二是餐飲廚藝與創新研發，主要目標為培育出對客家餐飲產業具有餐飲廚藝創新研發、飲食文化傳播及專案管理能力之人才。

Food Culture and Innovation 3 E

This course has two key points: the first is food culture and cultural communication, and the second is food and beverage culinary arts and innovative R&D. The main purpose is to cultivate the ability to develop food and beverage innovation, food culture communication and project management for the Hakka catering industry

(二)休閒運動健康系：

特殊需求族群運動指導理論與實務

2 選

本課程內容涵蓋的範圍為特殊族群在參與運動時應注意的事項與運動計畫的設計原則。首先必須先分析各族群的身體特性，包括生長發育與成熟度、老化現象，以了解身體需求與生理限制及探討運動參與的重要性，並進行實務指導練習，以期具備指導特殊族群運動之專業知識與指導能力。

Exercise in Special - need Population:from Theory to Practice 2 E

The purposes of this course include exercise program design and sports participation notices for special population. The first step, the body characteristic and limitation for those special groups should be analyzed, including mature, aging etc. That will help students understand the physiological need and limitation for special population, and realize the importance of exercise participation. Further, students could practice exercise instructing to enhance their knowledge and abilities in this area.

傳閱附件 1-6--本校各學院所屬各系(所)課程中英文摘要-國際學院

六、國際學院

(一)熱帶農業暨國際合作系：

國際農業產業發展

2 選

本課程介紹學生對於世界各國在農業產業研發及市場概況之深入瞭解，上課方式包括課堂講授及於假期間赴國外參觀果樹、花卉、或蔬菜產業及研究機構。課中將由授課教師或邀請專家介紹園藝產業資訊、產業分佈、行銷通路、及經營管理等。

Development of International Agricultural Industry

2 E

This course is designed for graduate students to acquire knowledge on international agricultural industry and market trends by classroom discussion and visiting foreign industry and academic institutions, such as the fields of fruit production, flower industry or vegetable production. The course will be offered by assigned faculty and by inviting experts to discuss about information of horticulture technology, industry distribution, marketing channels, and management.

備註：本課程於公告參訪行程並開始接受學生申請作業，並於同年暑假期間由老師帶團出國參訪產業，學後選課並繳交報告。(泰國團、馬來西亞團等)

國際農業產業概況

2 選

本課程藉由教師率團，實際參訪國外之植物產業及動物產業或教學研究機構，俾使學生了解參訪地之農業發展概況，學生於參訪後進行研討及繳交報告以了解當地之農業發展概況。

Introduction to International Agricultural Industry

2 E

This course is designated to help students familiarize with the agricultural industry development in a foreign country. Students participate on a field trip, led by a designated faculty, to a foreign country to introduce its agricultural production system and visit research or academic institutes. Students are required to submit a full report on the field trip after engaging on a group discussion.

養蜂學

2 選

本課程介紹蜜蜂的生物學和蜂業工藝，透過探索蜜蜂的歷史，生物地理和生態學來檢驗。並探討蜜蜂族群的社會結構、害蟲疾病、授粉生態學、養蜂管理等當前相關的主題。

Apiculture

2 E

The biology of honey bees and the craft of apiculture will be examined by exploring the natural history, biogeography and ecology of honey bees. Honey bee colony social structure, pests/diseases, pollination ecology, management and current topics in beekeeping will be discussed.

養蜂學實習

1 選

課堂上除介紹蜜蜂生物學知識、有趣的生態現象與行為外，並分配蜂群讓修課同學實際飼養蜜蜂，並採收蜂蜜、蜂蠟產品，修課同學可從實際養蜂過程中印證課堂所學內容，以明瞭蜜蜂對人類的貢獻與其生態地位。

Practice of Apiculture

2 E

This class is designed to provide information that new beekeepers need to start and care for a honey bee colony, especially students will be introduced to bee biology and management. Students will learn how to assemble hives, open and examine colonies, and see how honey and beeswax are harvested.

ry student.

寵物科學

2 選

課程授課內容著重在目前全世界寵物科學發展的趨勢探討及介紹，伴侶動物種類來源、品種、繁殖與育種、營養的認識、飼養與管理技巧、保健，了解寵物生理、心理、行為概論，從學理的觀點到實務的照顧。包含寵物種類的了解、基礎寵物生理及相關疾病、寵物醫療網絡介紹、寵物科學的相關研究、臨床應用及目前全世界及台灣的寵物商機，透過課程的解說希望為學生們開創另一扇門進入商業及科學研究的寵物市場。

Pet Science

2 E

The purpose of this course will introduce the trend and development of pet science, provides the necessary information including origins, breeds, reproduction and breeding, nutrition, feeding and management, health care in companion animals. Try to know and understand different pets, what are their normal physiological condition and diseases? Introduce the network of pet medicine, the research and clinical application. It is hoped that this study will serve as a guide for advanced understanding in the field of companion science and demonstrate the opportunity. Let them know the future market of pet science.

七、國際學院

(一) 動物疫苗科技研究所：

免疫基因與生物資訊特論

2 學分

選修

病原的結構基因經常可轉錄轉譯出重要的抗原決定位來引起強烈的免疫反應，因此本課程將針對這些病原的重要結構基因之功能及調控機制加以探討，同時也幫助學生學習利用不同的表現系統針對結構基因加以表現成蛋白質，並獲得大量的重組蛋白以提高抗原的製備技術，讓學生從資料庫開始上課、實作，結合影像大數據分析相關產業與生物資訊學，可以發揮的極致工作方向，並於課程後段，安排與生物製造相關的 3D 列印設計與輸出課程。

Immunogenic Genes and Bioinformatics 2S

Structural genes of infectious pathogens often transcribe and translate into important antigenic epitopes to induce strong immune responses. This curriculum will therefore explore the functions and regulation mechanisms of these pathogenic structural genes. Moreover, it will help students to use different expression systems to express these structural genes and to obtain the large-scale recombinant proteins for improving antigen preparation. Allow students to start class and practice from the database, analyze related industries and bioinformatics with image big data, and can use the ultimate work direction, and arrange 3D printing design and output courses related to biomanufacturing in the later stage of the course.

農企業管理系

Department of Agribusiness Management

一、必修科目 Required Courses

506001 農企業管理特論 2 必 輪授 上

本課程之目的，在使學生瞭解源自農產品生物特性之農企業方面的特殊管理問題。本課程主要內容涵蓋農企業管理之主要研究方向以及現階段所面臨的特定議題。本課程採輪授方式進行由本系之研究所教學群之教師形成授課團隊。

506001 Special Topics for 2 R Graduate Faculty, F Agribusiness Management

The purpose of this course is to discuss the special problems in agribusiness management that stemmed from the biological properties of agricultural products. The contents of the course are arranged according to the current issues feed by the agribusiness management and the topic areas of special concerns. The course is jointly provide by the gradate faculty of this department.

506002 農企業研究法 2 必 鄭秋桂 下

本課程之目的，在幫助學生了解農企業研究的過程，使其能順利且有效地執行一項研究計畫，以解決管理上的各種問題。課程內容包括研究計畫書的撰寫與評估、研究設計的方法、資料收集的方式、資料分析、以及研究成果報告的表達。

506002 Agribusiness Research Methods 2 R C.K. Cheng, S

The purpose of this course is to provide students with the knowledge and skills of scientific method they need to solve the problems and meet the challenges of a fast-paced decision-making environment. The contents of this course include introduction to agribusiness research, design of research, the sources and collection of data, and analysis and presentation.

506003 專題討論 2 必 指導教授 上 下

本課程之目的，在使學生瞭解當前農企業管理之主要理論與思潮，在農企業之企業功能與管理功能的互動架構下，探討農企業管理的各種問題，並透過評論相關的實證研究，整理出農企業管理的未來新趨勢與理論。本課程安排在第二及第三學期講授，每次開課以 1 學分為原則，授課時數則視實際需要另行安排。

506003 Seminar 2 R Thesis Advisor, F, S

The purpose of this course is to explore the contemporary topics in theory and practice of agribusiness management by a global perspective. Under the framework of interrelationship between managerial functions and business functions, the major contents include the evolution of management thought and the patterns of management analysis, management and society, global and comparative management, etc. Several reviews of relative empirical study will be made to find the future tendency in agribusiness management. This course will be arranged in the second and the third semester with 1 credit hour work each semester.

506004 碩士論文 3 必 指導教授 下

碩士班學生在教授的指導下，撰寫論文，經口試及格後，才能獲得碩士學位。

506004 Thesis Research 3 R Thesis Advisor, S

Under the direction of the Thesis Advisor, the student who seeks the masters degree must complete the thesis and pass the final oral examination.

二、選修科目 Elective Courses

506005 農企業生產管理 3 選 蔡青園 上

本課程的目的在於介紹統計的概念及分析的原理及方法。學習者可以透過實例，進行資料整理、分析並利用各種不同統計的方法以及統計軟體輔助資料分析。本課程的主要內容包含：緒論、資料整理與分析、描述統計、推論統計、平均數的差異、變數間的關係、無母數統計分析。

506005 Production and Operation 3 S C.Y. Tsay, F**Management of Agribusiness**

The purpose of this course is to provide technique of statistics to the graduate students. The principle of statistics will be introduced in the course. In addition, technique for data processing and analysis as well as preparation for seminar report will be introduced. Statistical software will be used in the course. Outline of the course include: Introduction ; Data processing and analysis ; Descriptive statistics ; Statistical inference ; Analysis of variance ; Correlation of variable ; Non parametric statistics analysis.

506006 產品行銷 3 選 彭克仲 上

瞭解農產品運銷制度、小農操作困境及計算出至少 5 項市場集中度指標、熟悉至少一種農產品之行銷實務與規劃。本課程旨在使學生了解農產行銷之理論與運作，以為農企業管理者因應行銷環境有效地行銷管理。內容包括：(1)農產行銷基本概念、(2)農產品供需與價格理論、(3)農產品市場與農產行銷企業、(4)農產品價格、(5)農產行銷績效、(6)農產行銷政策制度與法規。

506006 Marketing of 3 S K. C. Peng, F**Agricultural Products**

This course gives students the knowledge of marketing of agricultural products. It includes: (1) the concept and operations of marketing of agricultural products, (2) theory of demand, supply, and price of agricultural products, (3) markets and marketing agribusiness, (4) prices of agricultural products, (6) marketing performance of agricultural products, and (6) policy and regulations of agricultural product marketing.

506007 食品企業經營專題 3 選 林永順 下

本課程之目的，在使學生獲得食品業經營之理論與實務的相關知識，課程主要內容包括食品產業之介紹，食品保存方法，決策，溝通，食品品質，成本分析，人際關係處理技巧、說明、激勵、與領導，企業功能，以及食品公司之規劃、執行與控制。先由問題及決策說明經營者最重要的例行工作，再次用品質、成本、及時交貨及溝通來強調公司的競爭力，最後深入瞭解文化、壓力、挫折等主題。

506007 Seminar on Food Business 3 S Y.S. Lin, S**Management**

The objective of this course is designed to teach the related knowledge of the theory and practice of food company management. The major contents includes introduction to food industry, the methods of food preservation, decision, communication, food quality, cost analysis, the skills of the human relationship, business functions and food company planning , execution, and controlling. Use “Advanced Management” as textbooks. There are lesson, discussion, visiting In the classroom.

506008 供應鏈管理 3 選 陳淑恩 下

本課程目的在使學生瞭解農企業如何將商品或原料自供應商至顧客，有效率且有效果地規劃、執行、控制產品和服務的流通和儲存。課程內容包括：導論、訂單管理、顧客服務、供應鏈整合、供應鏈資訊系統、採購與存貨管理、運輸配送管理、物流中心、委外物流、全球供應鏈管理。

506008 Supply Chain Management 3 S S.E. Chen, S

The objective of this course is to realize an agribusiness how to plan, implement, and control the

recreation, human resources, and financial management of leisure farms ; Explanation services of leisure farm ; Accommodation management for leisure farm ; The management of educational farms ; The management of Allotment ; Diagnosis to leisure farm ; Future development for leisure agriculture.

506012 跨國性農企業專題 3 選 黃文琪 上

本課程係為使小型農企業發展成為跨國性農企業，具經營管理上的必要途徑考量，其目的有充分利用國際資源：原料、人才、資金、機器、管理。擴大市場：台灣只有二千三百萬人口，唯有跨國性企業才具規模經濟，以提昇競爭力。其重點包括：跨國性農企業的基本概念、跨國性農企業的理論及環境、跨國性農企業的策略、跨國性農企業的組織、領導及文化、跨國性農企業的管理。

506012 Seminar on Transnational 3 S W. C. Huang, F

Agribusiness

The purpose of Transnational Agribusiness is to fully use of informational resources and market. It includes: Basic concepts for Transnational Agribusiness. ; Theories and environment for Transnational Agribusiness ; Strategy for Transnational Agribusiness ; Organization, leadership and culture for Transnational Agribusiness ; Transnational Agribusiness management.

506013 農業社會企業經營管理專題 3 選 鍾秋悅 上

以社會企業進行創業已蔚為風潮，超越傳統中小企業創業的數目。本課程目的在使學生瞭解兼具社會價值及獲利能力的農業社會企業之創新創業。課程將介紹社會企業的源起及基本概念、組織結構、商業及獲利模式、農產業及跨產業的社會企業成功案例、評估農業社會企業的績效的方法以及相關的法規問題。

506013 Seminar on Agricultural Social 3 S Y.C. Chung, F

Enterprise Management

This course gives students the knowledge of agricultural social enterprises. It includes: (1) the concept and operations of social enterprises, (2) business structure of social enterprise, (3) the case study of agricultural social enterprise, (5) the evaluation of social enterprise's performance (6) policy and regulations of social enterprise.

506014 農企業風險管理專題 3 選 林永順 下

本課程之目的在於闡述如何量化財務風險與使用。課程內容包含投資者與風險管理、風險管理價值、風險管理對於一般企業研究應用、遠期與期貨契約、海京與遠期與期貨契約、最適化海京、界定與處理現金流量、衡量與使用利息風險、海京與選擇權、選擇權定價、動態海京與二元常態模型、Black-Scholes 模型、債券與利率選擇權與最近風險議題。

506014 Seminar on Agribusiness 3 S Y.S. Lin, S

Risk Management

The purpose of this course is to discuss how to quantify financial risks and manage them. The contents of this course include investors and risk management, creating value with risk management, a firm-wide approach to risk management, forward and futures contracts, hedging exposures with forward and futures contracts, optimal hedges for the real world, identifying and managing cash flow exposures, measuring and managing interest risks, hedging with options, option pricing, dynamic hedging, and the binomial model, the Black-Scholes model, options on bonds and interest rates and some recent developments in risk topics.

506015 組織理論與管理 3 選 Shamuni A/P Kunjiapu, 下

本課程旨在探討組織行為，幫助學生瞭解各類型組織在規劃、執行及控制的管理行為。規劃以使命、目標、策略、政策、規則及預算為主軸；執行上以組織、用人、領導及激勵為重心，控制上討論品質控制、財務控制及文化。

506015 Organization Theory and 3 S Shamuni A/P Kunjiapu, S

Management

The objective of this course is to discuss organizational behavior. Help student to understand all types of organization in planning、executing and seeing. The core of planning are mission, objective, strategy, policy, rules and budget. The key topics of executing are organization, human resources and administration, leadership and motivation. In seeing, the major chapters are qualify control, financial control and culture.

506016 消費者行為分析

3 選

Shamuni A/P Kunjiapu, 下

本課程目的在介紹消費者決策的本質及影響消費者決策過程的相關因素。這些影響因素包括外在環境、個人差異以及心理因素。課程亦將探討如何分析消費者的資料及規劃行銷策略。

506016 Analysis of Consumer Behavior 3 S

Shamuni A/P Kunjiapu, S

The purpose of this course is to introduce the nature of consumer decision-making and the influence upon this decision-making process. The influencing factors include the environmental influences, individual differences, and psychological processes. This course also let students learn how to analyze the data of consumers and to plan the marketing strategies.

餐旅管理系 107-110 學年度新增課程中英文摘要

632051 廚藝講座(1)、(2)	0.5 選	待聘、一上/下
本課程以直接教學、示範練習、分組教學為教學方法，本課程的目的是透過餐飲業專家的講演，讓學生熟悉廚藝藝術的技術。課程安排邀請廚藝專家與學生分享他們的餐飲技術，以提供學生發展專業、瞭解業界動態及未來就業能力的機會。		
632051 Culinary Arts Seminar (1)、(2)	0.5 E	1 S/F
This course uses direct teaching, demonstration exercises, and group teaching as teaching methods. The purpose of this course is to familiarize the student with Culinary Arts through attending the discourses given by guest speakers in the hospitality industry. Guest speakers will be invited to share their dietary technology with students. It provides students the opportunity to develop professionalism and employability concepts.		
632027 餐旅美學及實習	3 選	張慧珍、二上
本課程主要協助同學認識並學習美學與設計的基本知識，課程包含古今中外設計美學史的介紹，國內外美學設計的發展及美學設計的分析方法。且針對餐旅服務業的應用實例進行分析，藉以建構出個人設計美學思維及設計應用的能力。		
632027 Dining aesthetics and internships	3 E	H. C. Chang, 2 F
This course is to help students understand and learn the basics of aesthetics and design. For this course, We will introduction of the history of " aesthetics design ". Domestic and foreign aesthetic design development and aesthetic design analysis methods. Analyze the cases in hospitality industry, in order to build a personal aesthetic design thinking and design application ability.		
632048 多屏點理論與實作	1 選	張慧珍、二下
本課程主要協助學生認識並學習多屏點理論的基本知識與操作，課程內容包含引導學生利用 WIFI 網路連接，將智能平台、智能應用、智能操控等全面整合，運用在不同媒體終端如手機、電腦、投影或是電視等設備的資訊媒材，進行多媒體(音頻、視頻、圖片、數據等)內容的展示、控制、解析、傳輸、共享等方法的教學，豐富學生多屏點理論認知與技能之學習，進而提升餐旅學生結合科技創新之思維，以因應全球化下餐旅多元環境之變遷。		
632048 Multi-screen theory and implementation	1 E	H. C. Chang, 2 S
This course mainly helps students to understand and learn the basic knowledge and operation of the multi-screen theory. The course content includes guiding students to use WIFI connections, and integrates intelligent platforms, intelligent applications, and intelligent manipulations, and applies them to different media terminals such as mobile phones, computers, projections, or televisions, etc. It's a teaching multimedia content (audio, video, pictures, data, etc.) to display, control, analyze, transfer, and share. To enrich students' multi-screen theory and understanding. The study of skills will further enhance the thinking of students in hospitality combined with technological innovation in order to respond to the changes in the multi-environment of food and beverage under globalization.		
632049 VR/AR 體驗理論與實作	1 選	李一靜、2 下
本課程內容以 VR/AR 虛擬實境資訊科技為核心，運用科技資訊軟硬體之輔助教具，協助學生體驗並認識 VR/AR 理論與實作之基本知識為目標，透過講述教學法與示範教學法引導學生學習，並以分組教學讓學生體驗實作與討論，善用理論與實務之結合，培養學生 VR/AR 虛擬實境操作之基礎技能，讓學生在面對數位化科技的餐旅服務時，能具有科技創新服務之整合能力及全方位的思維。		
632049 VR/AR experience theory and implementation	1 E	Y.C. Li, 2 S

<p>The content of this course is based on VR/AR virtual reality information technology. It uses the aids of hardware and software of science and technology information to help students experience and understand the basic knowledge of VR/AR theory and practice. It aims to teach students how to use pedagogy and demonstrate teaching. The method guides students to study, and uses group teaching to allow students to experience the practice and discussion, make good use of the combination of theory and practice, and cultivate the basic skills of the students' VR/AR virtual reality operation, so that students can face the digital technology of the hospitality service. At the same time, it has the ability to integrate scientific and technological innovation services and comprehensive thinking.</p>		
632045 菜單規劃與分析	3 選	黃靖淑、三下
<p>本課程在協助學生瞭解菜單設計者應具備的食品、管理及財務之相關基本知識。課程中將使用多種菜單實例、圖表及格式以引導學生在菜單成本、行銷、廣告推銷、分析菜單及選擇餐飲設備之相關領域進行瞭解。內容包括：非商業性及商業性菜單、餐飲市場調查、營養菜單設計、餐飲菜單的特色、標準食譜、菜單定價策略、食譜成本、菜單的行銷特性、菜單工程法、菜單廣告推銷。</p>		
632045 Menu Planning and Analysis	3 E	C. H. Haung, 3 S
<p>The purpose of this course is to provide basic information about foods, management and financing for today's menu planners. Numerous tables, forms, and sample menus are used to instruct the students in cost, marketing, merchandising, and analyzing a menu, and in selecting equipment. It included: Institutional and commercial menus、Market survey、Nutrition and menu planning、Foodservice characteristics of a menu、Standard recipes、Menu pricing、Recipe costing、Marketing characteristics of a menu、Menu Engineering、Marketing & merchandising the menu.</p>		
632050 O2O 電商經營與實作	1 選	吳銘祥、3 下
<p>本課程以直接教學、示範練習、分組教學為教學方法，主要目的乃是欲使學生明瞭 O2O 電商經營之基礎概念，透過餐旅企業之案例探討與分析國內外相關實務議題評論，模擬實境操作 O2O 電商經營的策略，讓學生學習瞭解科技帶動電商經營的發展進路與結合餐旅企業的應用概況，藉以強化學生企業管理經營之能力與通路控管之學習。</p>		
632050 O2O Commerce Operation and Implementation	1 E	M.C. Wu, 3 S
<p>This course uses direct teaching, demonstration exercises, and group teaching as teaching methods. The main purpose enables to students to understand the basic concepts of O2O (Online To Offline) Commerce operations, by discussing and analyzing domestic and international relevant, practical issues and comments through the case study of hospitality companies, and simulate the reality. Operate the O2O Commerce strategy to allow students to learn about the application of science and technology to promote the development of e-commerce operations and the application profile of the combined hospitality company, in order to strengthen the ability of student business management and access control.</p>		
632052 大數據理論與實作	1 選	劉書助、3 下
<p>隨著資通訊科技應用日益普及，伴隨而生的大量資料成為餐旅業運作的重要資產，如何有效的分析、利用這些資料，從其中萃取出有價值的資訊，成企業競爭力的重要來源。本課程介紹大數據資料分析技術的方法，課程內容涵蓋資料科學、資料探勘、大數據分析、機器學習與人工智慧等相關技術概念，以各種實務案例為課程核心詳細介紹大數據分析技術，並輔以簡易的軟體應用，做為學生日後解決實際問題的基礎。</p>		
632052 Big Data: Theory and Practice	1 E	S.C Liu, 3 S
<p>Information and communication technologies (ICTs) have been widely used in the field of hotel and restaurant society. With the accompanying large amount of data, how to collect, analyze, and use the data effectively has been an important task of an enterprise. In this course, we introduce the concepts and</p>		

technologies of big data analysis (BDA). It will covers the concepts of data science, data mining, big data analysis, machine learning and artificial intelligence in this course. We will introduce BDA concepts by lecturing practical cases and software applications in enterprises. This course will be the foundation for students to solve the real problems in the future.		
632044 餐旅業連鎖管理	3 選	汪仲仁、四上
介紹餐旅業連鎖管理的歷史和發展，對於餐旅加盟連鎖指加盟總公司和加盟者的雙邊關係，加盟連鎖的成功經營管理方式、加盟連鎖系統對現代餐旅業造成的影響，以及加盟連鎖的法規權責、訓練、行銷支援、材料管理等。並且從不同的管理角度切入餐旅加盟連鎖的優點與缺點，以及探討加盟連鎖的不同功能為何。		
632044 Franchising in the Hospitality Industry	3 E	C. Z. Wang, 4F
The course is designed to examine franchising from both the franchiser and franchisee's point of view in hospitality management. It also identifies start-up, organization, franchiser/franchisee's relations, marketing, legal aspects, and operations, with an orientation toward the small business franchisee. The course will stress the application of analytical techniques. However, the students will obtain a better understanding and knowledge of what today are the main franchising strategic alternative in the hospitality industry		

