

明新科技大學 111學年第2學期教學大綱

Minghsin University of Science and Technology

【四技四年級選修】

科目名稱	Course Title
人工智慧	Artificial Intelligence
教學目標	Course Objective
本課程介紹人工智慧相關議題，包含人工智慧理論，人工智慧發展現況，與深度學習發展架構等最新技術。針對人工智慧技術最新發展技術，例如生成對抗網路(GAN)、遞迴式神經網路(RNN)、卷積神經網路進行探討(CNN)。	The course pays attention on the topics of Artificial Intelligence (AI), including the fundamental theory of AI, the state of art of AI, and the AI development architecture of deep learning, especially the up-to-date technologies, for example, Generative Adversarial Network(GAN), Recurrent Neural Networks (RNN), Convolutional Neural Networks (CNN)

科目名稱	Course Title
物聯網技術與應用	IoT Technology and Application
教學目標	Course Objective
1. 介紹物聯網的概念、趨勢與發展。 2. 藉由範例探討與實作，快速掌握物聯網的技術與應用	1. Introduces the Internet of Things(IoTs) concept, trend and development. 2. Use examples discussion and implementation, to familiar with the technology and application of the Internet of Things.

科目名稱	Course Title
資訊安全管理(資安學程)	Information Security Management
教學目標	Course Objective
認識資訊安全管理系統基本概念與實務	Understand the basic concepts and practices of information security management systems

科目名稱	Course Title
行動商務應用與安全(資安學程)	Mobile-commerce Application and Security
教學目標	Course Objective
讓同學能認識行動商務中常見的行動網路以及其相關	1. Introduction to common wireless net-

安全議題，並學習行動商務的商業模式、技術以及應用。	works and related security issues 2. Learning about the business models, techniques and applications of mobile commerce
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【四技三年級選修】

科目名稱	Course Title
行銷管理	Marketing Management
教學目標	Course Objective
依次介紹基本行銷概念與行銷管理程序、分析行銷環境、發展行銷策略和行銷組合，以及探討國際行銷和社會責任。	The text maintains its emphases on delivering a clear, concise explanation of the basic principles of marketing and impact of globalization, diversity, ethics, and small businesses on marketing.

科目名稱	Course Title
商用資料庫	Commercial Database
教學目標	Course Objective
使學生能熟習及使用 Oracle 資料庫的指令能開發及設計資料庫核心系統。 1. 建置 Oracle Database SQL 習作平台 2. 使用轉換函數及 SQL 條件表達式 3. 資料操作語言與資料庫交易控制 4. 使用 PL SQL 撰寫 Store procedure	Practice the command of Oracle database and using Oracle database to design the core system

科目名稱	Course Title
網路規劃與管理	Network Planning and Management
教學目標	Course Objective
導入 Cisco Networking Academy (思科網路學院) CCNAv7: Introduction to Networks (網路概論) 及 CCNA R&S: Routing and Switching Essentials (路由及交換基礎) 官方課程模組作為本科目主要教材，帶領學生進入網路的世界，不趕進度，重視扎實，希望藉由微型投影片+微型作業的方式，以仿 MOOCs 的教學法，幫助學生對網路的世界開始產生興趣，甚至激發學生對於網路的熱情而想要更深入地自學。	* Based on Cisco Networking Academy – "CCNAv7: Introduction to Networks" & "CCNA R&S: Routing and Switching Essentials" Official Course Modules * Entry level * MOOCs-like micro-slides + micro-assignments * Aim at igniting students' interest and even passion on

重要備註：以下教學內容僅為預計進度，實際進度會依照當學期實際教學狀況彈性調整，會以「不趕進度，重視扎實」為最高準則。	studying this subject of networks * Note that the following planning of Topics arrangement will be flexibly adjusted according to actual teaching and learning circumstances during the semester. The top guideline is "slow and solid rather than rushing but shallow."
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科目名稱	Course Title
無線電腦網路	Wireless Computer Network
教學目標	Course Objective
廣泛介紹當今各種無線網路技術與應用，期使學生能得到此領域的完整綜觀。	Broadly introduce current wireless networking techniques and applications to students.

科目名稱	Course Title
機器學習	Machine Learning
教學目標	Course Objective
本課程介紹機器學習相關議題，包含機器學習理論，機器學習演算法	The course pays attention on the topics of Machine Learning, including the fundamental theory and the algorithm of machine learning.

科目名稱	Course Title
共通核心職能課程(就業學程)	General Core Curriculum of Competence
教學目標	Course Objective
強化學生必備的三大核心職能，包括：動機職能、行為職能與知識職能，以增加學生的職場競爭力；同時讓同學對勞動法規有所了解，並增強同學履歷表的撰寫能力。	To make students familiar with the three core competencies: driving competencies(DC), behavior competencies(BC), and knowledge competencies(KC), to enhance their employment competitiveness.

科目名稱	Course Title
電子商務安全(資安學程)	Electronic Commerce Security
教學目標	Course Objective
安全是目前電子商務發展上最令消費者關切的議題。本課程希望讓學生以資訊管理的角度來了解線上交易的可能威脅與安全需求，並應用密碼學等相關工具來	Security has become the most concerned issue by customers in electronic commerce. The course is designed to let

設計解決方案，以保護線上交易的安全，促進電子商務的發展。	students explore and research the security threats and requirements of online transactions. Applying cryptographic technologies to secure online transaction. Electronic commerce can thus be encouraged.
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科目名稱	Course Title
網路安全(資安學程)資工開課/資管修	Network Security
教學目標	Course Objective
(1)基本觀念，如資訊安全規範、資訊安全政策制定、資訊資產的分類評估與風險管理、建立資訊安全管理制度、資訊安全稽核機制、資訊安全委外 (2)安全保護，如數位音樂安全機制、4G/3G/802.11等無線網路之加密機制 (3)密碼應用，如DES、3DES、AES、RSA、電子簽章、公開金鑰基礎建設 (4)安全技術，如虛擬私人網路與IP安全性 (5)駭客與電腦病毒的攻擊原理及防禦	(1)Basic concepts, including information security rules, policies, assessment classification, risk amnagement, management institutions, auditing mechanism, outsourcing. (2)Security protections, including digital right management, 4G/3G/802.11 security technologies WEP/WPA/WPA2. (3)Cryptography applications, including DES, 3DES, AES, RSA, electronic signature, PKI. (4)Security technologies, inclduing VPN, IP security. (5)Attack and defense principles of hacker & virus/worm/trojan.

科目名稱	Course Title
資訊安全(資安學程)資管開課/資工修	Introduction to Information Security
教學目標	Course Objective
1. 以資訊安全的角度出發，建立資訊安全的基礎知識 2. 從資訊安全必備基礎開始學習，延伸至資訊安全於現今之應用 3. 介紹加密機制，系統授權與金鑰管理等	1.Establishment of information security basic knowledges and necessarily concepts 2.Learning about information security applications 3.Learning about encryption/decryption technologies, authentication and key management

【四技二年級選修】

科目名稱	Course Title
商程式設計	Database Application Language Programming
教學目標	Course Objective
本課程介紹商程式語言 python 與其撰寫方法，並且帶領學生透過 python 語言進階機器學習與大數據領域	This course takes a closer look at the most popular programming language Python and learn how to program it. Students are anticipated to advance into machine and big data domain through python

科目名稱	Course Title
進階 JAVA 程式設計	Advanced JAVA Programming
教學目標	Course Objective
使學生了解物件導向程式設計 並能夠利用物件導向程式語言開發程式	Enable students to understand Object-Oriented programming and use it to develop software programs

科目名稱	Course Title
創意影像處理	Creative Image Processing
教學目標	Course Objective
1. 瞭解媒體中影像媒體的基本原理 2. 明瞭影像媒體元件的特性 3. 瞭解影像媒體應用與發展趨勢 4. 學會使用影像處理軟體	1.To understand elemental visual media 2.To understand characteristic of visual media 3.To understand the application of visual media and the trend of visual media 4.Knowing how to use image editing software

科目名稱	Course Title
資料結構(二三年級選修)	Data structure
教學目標	Course Objective
1. 了解各種基本資料結構-陣列、鏈結串列、堆疊、佇列 2. 探討進階資料結構-圖形、樹狀結構 3. 研究資料的排序與搜尋 4. 演算法解析與程式實例	1. Understanding basic data structure - array, linked list, stacks, queues. 2. Having the concept of further data structure - graphs and trees. 3. Having the abilities to sort and research data. 4. Algorithms analysis and programming examples.

【四技一年級選修】

科目名稱	Course Title
網際網路實務	Internet Practice
教學目標	Course Objective
學習利用 HTML5, CSS, jQuery, Bootstrap 製作網頁程式	Use HTML5, CSS, jQuery Bootstrap for Web programming

科目名稱	Course Title
資訊素養	Information Literacy
教學目標	Course Objective
輔導學生通過「電腦軟體應乙級」檢定	training course for application software certification 2nd grade