

朝陽科技大學 099學年度第2學期教學大綱  
Data Mining 資料探勘

當期課號	7407	Course Number	7407
授課教師	洪士程	Instructor	HORNG,SHIH CHENG
中文課名	資料探勘	Course Name	Data Mining
開課單位	資訊工程系碩士班一A	Department	
修習別	選修	Required/Elective	Elective
學分數	3	Credits	3
課程目標	資料倉儲與挖掘這門學科所關注的問題是：從大量資料中挖掘出事先未知、有效的和有用的資訊之過程，以提供有效的策略決斷並粹煉出具有競爭力的企業智慧。本課程主要的目標是介紹資料挖掘中核心的演算法、理論及相關應用。	Objectives	This course concentrates on the processes to discover previously unknown, useful knowledge or rules from huge data to support decision making. The students will learn the different algorithms in data mining and their potential applications.
教材	Kantardzic, M., "Data Mining— Concepts, Models, Methods, and Algorithms", 2003, Wiley-Interscience, NJ.	Teaching Materials	Kantardzic, M., "Data Mining— Concepts, Models, Methods, and Algorithms", 2003, Wiley-Interscience, NJ.
成績評量方式	1. 作業: 30% 2. 期中考: 30% 3. 期末報告與口頭簡報: 30% 4. 出席: 10%	Grading	1. Homework: 30% 2. Midterm Exam: 30% 3. Final project and Oral presentation: 30% 4. Participation: 10%
教師網頁	<a href="http://www.cyut.edu.tw/~schong/">http://www.cyut.edu.tw/~schong/</a>		
教學內容	本課程主要目標包括(1)了解現行資料探勘最新技術與演算法,(2)使用現有資料探勘工具(See5,CART)以及撰寫資料探勘程式(Matlab),和(3)觀察與使用資料探勘結果. 本課程的教授主題包括: 1. 資料探勘觀念 2. 資料預先準備 3. 資料減量處理 4. 從資料學習 5. 統計方法 6. 分群方法分析 7. 決策樹與決策法則 8. 關連法則 9. 使用現有資料探勘工具(See5,CART) 10. 撰寫資料探勘程式(Matlab)	Syllabus	The goals of the course include (1) understand the underlying algorithms and methods of data mining, (2) develop data mining programs and applications using available data mining tools (See5, CART) and general-purpose languages(Matlab), and (3) understand visualization and navigation of data mining results. The main topics including in the course are as follows: 1. Data Mining Concepts. 2. Preparing the Data. 3. Data Reduction. 4. Learning from Data. 5. Statistical Methods. 6. Cluster Analysis. 7. Decision Trees and Decision Rules. 8. Association Rules. 9. Using data mining tools (See5, CART). 10. Develop data mining programs using Matlab.

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