國立東華大學

課　綱　Course Outline

資訊工程學系資工組

中文課程名稱 Course Name in Chinese	資料探勘				
英文課程名稱 Course Name in English	Data Mining				
科目代碼 Course Code	CSIE58600	班　別 Degree		碩士班 Master's	
修別 Type	選修 Elective	學分數 Credit(s)	3.0	時　數 Hour(s)	3.0
先修課程 Prerequisite	無				

課程目標 Course Objectives
介紹資料探勘的目的，原理，方法以及其應用。

系教育目標 Dept.'s Education Objectives	
1	探究學科知識，善用專業技能 Explore academic knowledge, utilize professional skills.
2	訓練評析思考，創新解決問題 Exercise analytical thinking, enhance creative problem solving skills.
3	學習團隊分工，強化溝通表達 Participate in teamwork, strengthen communication skills.

	系專業能力 Basic Learning Outcomes	課程目標與系專業能力相關性 Correlation between Course Objectives and Dept.'s Education Objectives
A	統合資工知識技術之能力 Ability to integrate knowledge and technologies of computer science and information engineering.	●
B	設計技術理論驗證實驗之能力 Ability to design and conduct science experiments and to validate hypotheses.	○
C	資訊軟硬體設計開發之能力 Ability to design and develop computer software and hardware.	
D	團隊專案開發之能力 Ability to design and develop team projects.	○

E	批判性思考與創新研發之能力 Ability of analytical thinking, creative research planning, and innovative development.	●

圖示說明Illustration ：● 高度相關 Highly correlated ○中度相關 Moderately correlated

課程大綱
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Chapter 1. Introduction
Chapter 2. Data warehouse and OLAP technology for data mining
Chapter 3. Data preprocessing
Chapter 4. Knowledge representation
Chapter 5. Concept description
Chapter 6. Association rules mining
Chapter 7. Sequential and periodic patterns mining
Chapter 8. Classification and prediction
Chapter 9. Cluster analysis
Chapter 10. Mining complex types of data
Chapter 11. Applications and trends in data minin

資源需求評估（師資專長之聘任、儀器設備的配合···等）
Resources Required (e.g. qualifications and expertise, instrument and equipment, etc.)

Existing suitable full-time teachers

課程要求和教學方式之建議
Course Requirements and Suggested Teaching Methods

進行方式:
課堂講授討論

教學要求:
1.相關研究之研讀討論
2.學生需完成Homework
3.學生需經過筆試測

其他
Miscellaneous