



## 教學計劃表 Syllabus

課程名稱(中文) Course Name in Chinese	資料探勘		學年/學期 Academic Year/Semester	112/1	
課程名稱(英文) Course Name in English	Data Mining				
科目代碼 Course Code	CSIEM0240	系級 Department & Year	碩士	開課單位 Course-Offering Department	資訊工程學系
修別 Type	選修 Elective	學分數/時間 Credit(s)/Hour(s)	3.0/3.0		
授課教師 Instructor	/李官陵				
先修課程 Prerequisite					
課程描述 Course Description					
學習資料探勘相關之基礎知識以及未來之發展與應用，以上課講授為主，考試以及課堂討論為輔					
課程目標 Course Objectives					
Introduce the purpose, principles, methods and applications of data mining					
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					
授課進度表 Teaching Schedule & Content					
週次Week	內容 Subject/Topics			備註Remarks	
1	Introduction				
2	Getting to Know Your Data				
3	Data preprocessing				
4	Association rule mining				
5	Association rule mining and Interestingness measure (I)				
6	Association rule mining and Interestingness Measure (II)				

7	classification (I)	
8	classification (II)	
9	期中考試週 Midterm Exam	
10	Classification(III)	
11	Classification and evaluation	
12	Clustering (I)	
13	Clustering (II)	
14	Data mining trend(I)	
15	project report	
16	project report	
17	期末考試週 Final Exam	
18	consultation	

教學策略 Teaching Strategies

- 課堂講授 Lecture
  分組討論 Group Discussion
  參觀實習 Field Trip  
 其他 Miscellaneous:

教學創新自評 Teaching Self-Evaluation

創新教學(Innovative Teaching)

- 問題導向學習(PBL)
  團體合作學習(TBL)
  解決導向學習(SBL)  
 翻轉教室 Flipped Classroom
  磨課師 Moocs

社會責任(Social Responsibility)

- 在地實踐 Community Practice
  產學合作 Industry-Academia Cooperation

跨域合作(Transdisciplinary Projects)

- 跨界教學 Transdisciplinary Teaching
  跨院系教學 Inter-collegiate Teaching

- 業師合授 Courses Co-taught with Industry Practitioners

其它 other:

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學期成績計算及多元評量方式 Grading & Assessments

配分項目 Items	配分比例 Percentage	多元評量方式 Assessments							
		測驗 會考	實作 觀察	口頭 發表	專題 研究	創作 展演	卷宗 評量	證照 檢定	其他
平時成績 General Performance	5%		✓						
期中考成績 Midterm Exam	30%	✓							
期末考成績 Final Exam	30%	✓							
作業成績 Homework and/or Assignments	35%			✓			✓		
其他 Miscellaneous (_____)									

評量方式補充說明

Grading & Assessments Supplemental instructions

教科書與參考書目 (書名、作者、書局、代理商、說明)

Textbook & Other References (Title, Author, Publisher, Agents, Remarks, etc.)

"Data mining: concepts and techniques", third edition, Jiawei Han and Micheline Kamber, Morgan Kaufmann.

"Data Mining : Practical Machine Learning Tools and Techniques", 4/e, Ian H. Witten, Eibe Frank, Mark A. Hall, Christopher J. Pal, Morgan Kaufmann.

課程教材網址(含線上教學資訊, 教師個人網址請列位於本校內之網址)

Teaching Aids & Teacher's Website(Including online teaching information.

Personal website can be listed here.)

e學苑

其他補充說明 (Supplemental instructions)