



## 教學計劃表 Syllabus

課程名稱(中文) Course Name in Chinese	資訊檢索	學年/學期 Academic Year/Semester	113/1
課程名稱(英文) Course Name in English	Information Retrieval		
科目代碼 Course Code	BM_83100	系級 Department & Year	博士 Course-Offering Department
修別 Type	選修 Elective	學分數/時間 Credit(s)/Hour(s)	3.0/3.0
授課教師 Instructor	/劉英和		
先修課程 Prerequisite			
課程描述 Course Description			
The goal of this course is to introduce not only the issues of information retrieval but also data mining, machine learning, and related applications such as pattern mining, image/object recognition, and text mining. By broadly reviewing the above areas, students will be familiar with the technical perspectives of digital content management and knowledge retrieval.			
課程目標 Course Objectives			
本課程旨在對於資訊檢索做一廣泛性的介紹。課程內容包括介紹文件的呈現方式、term weighting、比較資訊檢索系統的判準、文字分類及叢集等。預期學生在修習完本課程後，能夠掌握資訊檢索領域的理論與應用，並對於現今資訊檢索領域所關注的議題有所認識及瞭解。本課程希望學生具備基本的程式語言能力以及嫻熟於資料結構，以利作業及專案實作的進行。			
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	培育具備資訊管理相關理論與應用的知識 Cultivate the knowledge of information management application		
B	培育具備邏輯推演、問題解決與獨立研究的能力 Cultivate the capability of logical deduction, problem solving and independent research	●	
C	培養具備資訊專業知識與技能 Cultivate the professional ability and skill regarding information	●	
D	培養具備資訊科技與管理領域之知識整合應用能力 Cultivate the integrated ability regarding information technology and management	●	
E	培養具備創新思維、領導智能與國際觀的能力 Cultivate the ability regarding innovative thinking, leadership and international view	○	
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	Data mining and machine learning		
2	Data preprocessing		
3	Mining frequent patterns & association rules		
4	Classification and prediction		

5	Cluster analysis	
6	Image/object recognition	
7	Image descriptors	
8	Recognition methods	
9	Information retrieval	
10	The term vocabulary and postings lists	
11	Vector space model	
12	Evaluation in information retrieval	
13		
14		
15		
16		
17		
18		

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	10%								
期中考成績 Midterm Exam	25%								
期末考成績 Final Exam	25%								
作業成績 Homework and/or Assignments									
其他 Miscellaneous (paper reading)	40%								

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, 3rd ed., J. Han and M. Kamber, Morgan Kaufmann, 2011. (ISBN-13: 978-0123814791)

Introduction to Information Retrieval, C.D. Manning, P. Raghavan, and H. Schütze, Cambridge University Press. 2008. (<http://nlp.stanford.edu/IR-book/information-retrieval-book.html>)

Pattern Classification, 2nd ed., R.O. Duda, P.E. Hart, and D.G. Stork, Wiley-Interscience, 2000.

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.)

線上教學位址 [meet.google.com/eiq-xjzk-wyw](https://meet.google.com/eiq-xjzk-wyw)

其他補充說明 (Supplemental instructions)