國立東華大學

課 綱 Course Outline

資訊管理學系一般組

中文課程名稱 Course Name in Chinese	資訊檢索				
英文課程名稱 Course Name in English	Information Retrieval				
科目代碼 Course Code	IM__50050	班 別 Degree	碩士班 Master's		
修別 Type	必修 Required	學分數 Credit(s)	3.0	時 數 Hour(s)	3.0
先修課程 Prerequisite					

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。

系教育目標 Dept.'s Education Objectives	
1	培育具備資訊技術解決問題思維能力之高級人才 Cultivate senior personnel with the capability of information technology to solve problems with thinking skills
2	以資訊技術為核心，培育具有高度專業能力之技術人才 Cultivate professional personnel with the capability of information technology
3	以管理為對象，培育具有創新、研發、企劃整合能力之高級人才 Cultivate senior personnel with the capability of innovation, research and development and integrated planning
4	提供數位內容、電子商務與知識管理所需之人才 Cultivate personnel with the capability of digital content, electronic commerce and knowledge management
5	培育符合國家與區域發展所需之資訊管理人才 Cultivate information management personnel to meet the needs of national and regional development

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	培育具備創造與思考能力、服務精神、團隊合作以及國際觀 Nurture ability regarding creativity and thinking, spirit of service, teamwork and international view	○
B	培養具備資訊專業知識與技能 Nurture professional ability and skill regarding information	●
C	培養具備資訊科技與管理領域之知識整合應用能力 Nurture integrated ability regarding information technology and management	●
D	培養具備解決問題之資訊剖析、組織、整合、應用以及表達的能力 Nurture ability of information analysis, organization, integration, application, and expression regarding problem solving	●
E	培養具備獨立研究、領導智能與資訊創新的能力 Nurture ability regarding independent research, leadership and information innovation	○

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

課程大綱
Course Outline

（預定課程綱要將視學習成效調整內容與進度）
1. Term Vocabulary
2. PAT Tree and Chinese Keyword Extraction.
3. Term Weighting and Vector Space Model.
4. Evaluation in Information Retrieval.
5. Relevance Feedback and Query Expansion.
6. Probabilistic Information Retrieval.
7. Language Models for Information Retrieval.
8. Text Classification and Naive Bayes.
9. Vector Space Classification.
10. Flat Clustering.
11. Hierarchical Clustering.
12. Topic Detection and Tracking.
13. Web Search Basics.
14. Web Crawling and Indexes.
15. Link Analysis

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.)

具備資訊檢索與文字探勘相關專長之師資。

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

課堂講授(60%)
資訊檢索系統操作(20%)
期末專案實作(20%)

其他
Miscellaneous

書名: Introduction to Information Retrieval
作者: C.D. Manning, P. Raghavan, and H. Schutze
出版社: Cambridge University Press

書名: Modern Information Retrieval
作者: Ricardo Baeza-Yates and Berthier Ribeiro-Neto
出版社: Addison Wesley

書名: Automatic Text processing - The Transformation, Analysis, and Retrieval of Information by
Computer
作者: G. Salton
出版社:Addison Wesley

書名: Information Retrieval - Data Structures and Algorithms
作者: W.B. Frakes and Ricardo Baeza-Yates
出版社:Prentice Hall

書名: Foundations of Statistical Natural language Processing
作者: C.D. Manning and H. Schutze
出版社:The MIT Press