



課 綱 Course Outline  
資訊管理學系一般組

中文課程名稱 Course Name in Chinese	高等資料庫管理系統				
英文課程名稱 Course Name in English	Advanced Database Management System				
科目代碼 Course Code	IM_50180	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	資料庫管理				
課程目標 Course Objectives					
(1) 培養學生將來進一步探討資料庫相關領域之研究的能力 (2) 訓練學生將來有能力成為 "完全內行" 的高級資料庫管理師(DBA)					
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

Unit 1: Introduction to DBMS  
Unit 2: DB2 and SQL  
Unit 3: The Relational Model  
Unit 4: The Hierarchy Model  
Unit 5: The Network Model  
Unit 6: File Organization and Access Methods  
Unit 7: Logical Database Design  
Unit 8: Database Recovery  
Unit 9: Concurrency Control  
Unit 10: Security and Integrity  
Unit 11: Query Optimization  
Unit 12: Distributed Database

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.)

具資訊管理專長之教師與DBMS開發工具

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

課堂授課與程式作業

其他  
Miscellaneous

參考書目:

1. Lecture Notes (edited by Prof. Wei-Pang Yang)
2. C. J. Date, "An Introduction to Database Systems," 8th edition, 2004.
3. Cited papers.