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	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.