



課 綱 Course Outline

資訊工程學系人工智慧與創新應用碩士班

中文課程名稱 Course Name in Chinese	最佳化與決策專題				
英文課程名稱 Course Name in English	Topics on optimization and decision making				
科目代碼 Course Code	AIIA50200	班 別 Degree	碩士班 Master' s		
修別 Type	選修 Elective	學分數 Credit(s)	3.0	時 數 Hour(s)	3.0
先修課程 Prerequisite					
課程目標 Course Objectives					
This course is an advanced course that explores specific topics in optimization and decision-making models, which serve as preparation for related research.					
系教育目標 Dept.' s Education Objectives					
1	探究學科知識，善用專業技能 Explore academic knowledge, utilize professional skills.				
2	訓練評析思考，創新解決問題 Exercise analytical thinking, enhance creative problem solving skills.				
3	學習團隊分工，強化溝通表達 Participate in teamwork, strengthen communication skills.				
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		
課程大綱 Course Outline		
1. 非線性規畫 (nonlinear programming) 2. 模糊規畫 (fuzzy programming) 3. 多目標決策 (multiple criteria/ multiple objective decision making) 4. 賽局理論 (game theory) 5. 最佳化在分類方法的應用 (optimization in classification)		
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.)		
課程要求和教學方式之建議 Course Requirements and Suggested Teaching Methods		
Existing suitable full-time teachers		
其他 Miscellaneous		