課　綱　Course Outline

理工學院學士班

中文課程名稱 Course Name in Chinese	人工智慧導論				
英文課程名稱 Course Name in English	Introduction to Artificial Intelligence				
科目代碼 Course Code		班 別 Degree			
修別 Type	選	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 introduces students to the fundamentals, problem-solving methods, and learning paradigms of artificial intelligence. Topics covered include intelligent agents, uninformed and informed searching, adversarial search and games, statistical learning, neural networks, and AI applications.

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課程大綱
Course Outline

1. Introduction, Intelligent Agents
2. Intelligent Agents
3. Solving Problems by Searching
4. Search in Complex Environments
5. Search in Complex Environments
6. Quantifying Uncertainty
7. Learning from Examples
8. Learning from Examples
9. Learning Probabilistic Models
10. Learning Probabilistic Models
11. Deep Learning
12. Final Exam (同時段同步考試)
13. Deep Learning for Natural Language Processing
14. Computer Vision
15. Final project報告 (優選團隊、線上線下同步報告)
16. 彈性學習(TBA)
17. 彈性學習(TBA)

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
1.Five homework assignments (40%): including programing, writing report, and short video 2.One exam (30%) 3.One final Project (30%): including project proposal, project implementation, writing report, and oral presentation
其他 Miscellaneous