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	TCAI10030	班 別 Degree	學士班 Bachelor'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 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.

課程大綱
Course Outline

1. Introduction, Intelligent Agents
2. Solving Problems by Searching
3. Search in Complex Environments
4. Quantifying Uncertainty
5. Learning from Examples
6. Learning Probabilistic Models
7. Deep Learning
8. Deep Learning for Natural Language Processing
9. Agentic AI 與 AI Agents
10. Computer Vision
11. Final Exam
12. Generative AI
13. Final project

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

課堂作業包括程式作業，修課學生需具備程式撰寫能力以及演算法的基本知識。

評量方式
Evaluation methods

●作業成績: 60%
●期末考成績: 30%
●其他 : 30%

其他
Miscellaneous