

Instructor	CHANG, CHIA-KAI
Course Name	Interdisciplinary Artificial Intelligence
Credit	3
Teaching content	<ol style="list-style-type: none"> 1 Python Basic (1) (3 hrs) <ol style="list-style-type: none"> 1.1 Python Introduction 1.2 Variables and calculations 1.3 Numeric data types 2 Python Basic (2) (3 hrs) <ol style="list-style-type: none"> 2.1 Python operators 2.2 String data type and member operators 2.3 Inputs and outputs 3 Python Basic (3) (3 hrs) <ol style="list-style-type: none"> 3.1 Program flow control – if 3.2 Program flow control - loops 3.3 List 4 Python Basic (4) (3 hrs) <ol style="list-style-type: none"> 4.1 Tuple 4.2 Dictionary 4.3 Set 5 Python Basic (5) (3 hrs) <ol style="list-style-type: none"> 5.1 Function design 5.2 Function arguments 5.3 Anonymous function 6 Python Basic (6) (3 hrs) <ol style="list-style-type: none"> 6.1 Module design 6.2 Exception handling 6.3 Reading and writing files 7 AI Introduction (1) (3 hrs) <ol style="list-style-type: none"> 7.1 Introduction to AI 7.2 Introduction to big data 7.3 Introduction to machine learning 8 AI Introduction (2) (3 hrs) <ol style="list-style-type: none"> 8.1 Azure cognitive services 8.2 Azure cognitive service: computer vision 8.3 Azure cognitive service: facial recognition 8.4 Azure cognitive service: facial recognition 9 AI Introduction (3) (3 hrs) <ol style="list-style-type: none"> 9.1 Azure cognitive service: custom vision services 9.2 Azure cognitive service: speech service 9.3 Azure cognitive service: language services

- 10 AI Introduction (4) (3 hrs)
 - 10.1 Python Flask framework
 - 10.2 Introduction to web, front-end, and back-end
 - 10.3 Build a back-end website service using Python
- 11 AI Introduction (5) (3 hrs)
 - 11.1 Introduction to Telegram messenger
 - 11.2 Build a chatbot using Telegram (1)
 - 11.3 Build a chatbot using Telegram (2)
- 12 AI Introduction (6) (3 hrs)
 - 12.1 Integrate computer vision to chatbot
 - 12.2 Integrate speech recognition to chatbot
 - 12.3 Integrate ChatGPT to chatbot
- 13 Interdisciplinary Artificial Intelligence Project (1) (3 hrs)
 - 13.1 Grouping
 - 13.2 Project Proposal Development
- 14 Interdisciplinary Artificial Intelligence Project (2) (3 hrs)
 - 14.1 Research and Background Study
 - 14.2 Technology Selection
- 15 Interdisciplinary Artificial Intelligence Project (3): Prototype Development (1) (3 hrs)
- 16 Interdisciplinary Artificial Intelligence Project (4): Prototype Development (2) (3 hrs)
- 17 Interdisciplinary Artificial Intelligence Project (5): Prototype Development (3) (3 hrs)
- 18 Interdisciplinary Artificial Intelligence Project (6): Project Presentation(3 hrs)