# 元智大學「人工智慧自然語言技術」深耕跨域學程 科目規劃表

Yuan Ze University

"Artificial Intelligence for Natural Language Technologies" Advanced Cross-Domain Program

Course Planning Table

（115 學年度申請適用）

(For students applied in Academic Year 2026)

115.8.25 一一五學年度第一次教務會議通過

Passed by the 1st Academic Affairs Meeting, Academic Year 2026, on August 25, 2026

## 一、教學目標 Teaching Objectives：

本學程主要提供**資訊學院、電機通訊學院及工程學院**之大學部學生修習，旨在培養學生具備人工智慧、語言資料分析及自然語言處理之基礎知識與跨領域應用能力。課程由基礎素養、專業領域應用及終端實作三個階段組成，引導學生理解文字資料處理、機器學習、深度學習、生成式人工智慧及大型語言模型的基本概念與方法，並運用相關技術解決資訊檢索、文本分析、內容生成、人機互動及專業領域語言應用等問題。學生最終將透過終端實作課程，完成自然語言技術應用成果，並培養資料分析、系統實作、跨域溝通、倫理判斷及創新實踐能力。

This program is designed primarily for undergraduate students in **the College of Informatics, the College of Electrical and Communication Engineering, and the College of Engineering**. It aims to develop foundational knowledge and interdisciplinary application skills in artificial intelligence, language data analytics, and natural language processing. The curriculum consists of three stages: foundational competency, professional domain applications, and terminal practice. Students will learn the fundamental concepts and methods of text processing, machine learning, deep learning, generative AI, and large language models, and apply these technologies to information retrieval, text analytics, content generation, human–computer interaction, and domain-specific language applications. Through the Terminal Practice course, students will develop natural language technology applications while strengthening their abilities in data analysis, system implementation, interdisciplinary communication, ethical judgment, and innovative practice.

## 二、課程設計 Curriculum Design：

### (一) 基礎素養必修課程

### Required Courses — Foundational Competency

須修習所屬學系（組、班）開設之**資訊學院、電機通訊學院及工程學院**各院必修「AI程式設計」共4學分，實際課程名稱請詳見「各系必選修科目表」。

Students are required to complete the 4-credit "Fundamentals of AI Programming" course required by their respective college— **the College of Informatics, the College of Electrical and Communication Engineering, and the College of Engineering**. The actual course title should be referred to the "Required and Elective Course List of Each Department."

**(二) 專業領域選修課程 (以下9門課擇2門修習)**

**Elective Courses — Professional Domain: Choose two of the following nine courses**

| 課群名稱 Course Group Name | 課號 Course ID | 課程名稱 Course Name | 學分 Credit(s) | 學制 Academic Level | 開課系所 Offering Unit |
|---|---|---|---|---|---|
| 生成式人工智慧導論/人工智慧導論 Introduction to Generative Artificial Intelligence/ Introduction to Artificial Intelligence | IM244 | 生成式人工智慧之商業應用 Business Applications of Generative AI | 3 | 大學部 Undergraduate | 資訊管理學系 Department of Information Management |
| | CS431/IN406 | 生成式AI導論 Introduction to Generative AI | 3 | 大學部 Undergraduate | 資訊工程學系 Department of Computer Science and Engineering |
| | EEB330 | 人工智慧與深度學習 Introduction to Artificial Intelligence and Deep Learning | 3 | 大學部 Undergraduate | 電機工程學系 Department of Electrical Engineering |
| | AI004 | 人工智慧導論 Introduction to Artificial Intelligence | 3 | 大學部 Undergraduate | AI聯盟 TAICA |
| | AI006 | 生成式人工智慧與機器學習導論 Introduction to Generative Artificial Intelligence and Machine Learning | 3 | 大學部 Undergraduate | AI聯盟 TAICA |
| 資料探勘與應用 Data Mining Techniques and Applications | IE237 | 統計建模與電腦化實作 Statistical Modeling and Computerized Implementations | 3 | 大學部 Undergraduate | 工業工程與管理學系 Department of Industrial Engineering and Management |
| | IM236 | 數據分析導論 Introduction to Data Analytics | 3 | 大學部 Undergraduate | 資訊管理學系 Department of Information Management |

| 課群名稱<br>Course Group Name | 課號<br>Course ID | 課程名稱<br>Course Name | 學分<br>Credit(s) | 學制<br>Academic Level | 開課系所<br>Offering Unit |
|---|---|---|---|---|---|
| | IM341/IN316 | 資料探勘<br>Data Mining | 3 | 大學部<br>Undergraduate | 資訊管理學系/資訊學院英語學士班<br>Department of Information Management/ International Bachelor Program in Informatics |
| | CS351/<br>IN321 | 人工智慧輔助軟體開發<br>AI-assisted Software Development | 3 | 大學部<br>Undergraduate | 資訊工程學系/資訊學院英語學士班<br>Department of Computer Science and Engineering/ International Bachelor Program in Informatics |

**(三) 終端實作必修課程 (以下4門課擇1門修習)**

**Required Courses — Terminal Practice: Choose one of the following four courses**

| 課號<br>Course ID | 課程名稱<br>Course Name | 學分<br>Credit(s) | 學制<br>Academic Level | 開課系所<br>Offering Unit | 備註<br>Remarks |
|---|---|---|---|---|---|
| IE448 | 大語言模型理論與實務<br>Large Language Models: Theory and Practice | 3 | 大學部<br>Undergraduate | 工業工程與管理學系<br>Department of Industrial Engineering and Management | |
| IM342 | 大數據創新應用專題<br>Innovation Topics on Big Data | 3 | 大學部<br>Undergraduate | 資訊管理學系<br>Department of Information Management | |
| CS412 | 資料探勘<br>Data Mining | 3 | 大學部<br>Undergraduate | 資訊工程學系<br>Department of Computer Science and Engineering | |
| CS406 | 資料探勘實務<br>Data Mining Practice | 3 | 大學部<br>Undergraduate | 資訊工程學系<br>Department of Computer Science and Engineering | |

**三、學程證書授予標準 Certificate Award Criteria：**

1、 在第二階段之專業領域選修課程中，學生須至少修習一門非所屬學系（組、班）開設之科目。 In the second-stage Professional Domain Electives, students must complete at least one course offered outside their own department, program, or class.

2、 修讀本學程之學生須修畢至少12學分，包含基礎素養必修課程2門、專業領域選修課程2門、終端實作必修課程1門，即授予學程證書。 Students enrolled in this program must complete at least 12 credits, including two required courses in Foundational Competency, two elective courses in the Professional Domain, and one required course in Terminal Practice, to be awarded the program certificate.

3、 為避免影響畢業時程，不建議學生於大四下學期始修習終端實作必修課程。 Students are advised not to enroll in a Terminal Practice course for the first time during the second semester of their senior year, in order to avoid conflicts with their graduation schedule.

**四、領域別 Fields of Study：**人工智慧 Artificial Intelligence

**五、學程主責教師 Program Director：**資傳系/陳昱錡教授 Department of Information Communication/Prof. Yu-Chi Chen

**六、負責規劃單位 Responsible Planning Unit：**人工智慧學分學程委員會Artificial Intelligence Credit Program Committee