

元智大學電機通訊學院英語學士班「應用人工智慧」深耕跨域微學程 科目規劃表  
International Bachelor Program in Electrical and Communication Engineering  
Yuan Ze University  
“Applied Artificial Intelligence” Advanced Cross-Domain Micro Program  
Course Planning Table  
(115學年度申請適用)  
(For students applied in Academic Year 2026)

115.04.29 一一四學年度第七次教務會議通過

Passed by the 7th Academic Affairs Meeting, Academic Year 2025, on April 29, 2026

一、教學目標 Teaching Objectives：

本學程旨在培養學生具備嚴謹且跨領域之人工智慧基礎素養，並兼具智慧系統分析、設計與實作部署之理論深度與實務能力。課程內容涵蓋機器學習、深度學習、強化學習及資料驅動計算方法等核心領域，透過系統化之專業訓練，使學生具備界定複雜工程問題、建構穩健人工智慧模型，並提出實際應用解決方案之能力。

本學程並著重分析能力、跨域整合與創新導向學習，期能培養學生於人工智慧相關領域之研究潛力與專業素養，作為未來投入進階學術研究或人工智慧相關產業發展及領導工作之基礎。

This program is designed to cultivate a rigorous and interdisciplinary foundation in artificial intelligence, equipping students with both theoretical depth and practical competence in the analysis, design, and deployment of intelligent systems. Through systematic training in machine learning, deep learning, reinforcement learning, and data-driven computational methodologies, students will develop the capacity to formulate complex engineering problems, construct robust AI models, and derive effective solutions for real-world applications. Emphasizing analytical rigor, cross-domain integration, and innovation-oriented learning, the program prepares students for advanced academic research as well as leadership roles in rapidly evolving AI-related industries.

二、課程設計 Curriculum Design:

核心課程： 3 學分

Core Courses: 3 credits

| 課號<br>Course ID | 課程名稱<br>Course Name                                              | 學分<br>Credit(s) | 學制<br>Degree structure       | 開課系所<br>Department Offered the Present Course(s)                                        | 備註 Remarks                                                                                      |
|-----------------|------------------------------------------------------------------|-----------------|------------------------------|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| EI109           | Programming- Python<br>程式語言實驗(一)<br>Programming Language Labs(I) | 1               | 大學部<br>Undergraduate Program | 電通學院英語學士班<br>International Bachelor Program in Electrical and Communication Engineering | EI109與EN006B為搭配課程，需同時選修。<br>EI109 and EN006B are paired courses and must be taken concurrently. |
| EN006 B         | AI程式設計-Python（一）<br>Fundamentals of AI Programming - Python (I)  | 2               | 大學部<br>Undergraduate Program | 電機通訊學院<br>College of Electrical and Communication Engineering                           |                                                                                                 |

**專業課程：至少 6 學分**

Professional courses: at least 6 credits

| 課號<br>Course ID | 課程名稱<br>Course Name                                          | 學分<br>Credit(s) | 學制<br>Degree structure       | 開課系所<br>Department Offered the Present Course(s)                                        | 備註 Remarks |
|-----------------|--------------------------------------------------------------|-----------------|------------------------------|-----------------------------------------------------------------------------------------|------------|
| EI228           | 機器學習導論<br>Introduction to Machine Learning                   | 3               | 大學部<br>Undergraduate Program | 電通學院英語學士班<br>International Bachelor Program in Electrical and Communication Engineering |            |
| EI320           | 深度學習使用Python<br>Deep Learning with Python                    | 3               | 大學部<br>Undergraduate Program | 電通學院英語學士班<br>International Bachelor Program in Electrical and Communication Engineering |            |
| EI334           | 智慧機器人<br>Applications of Artificial Intelligence in Robotics | 3               | 大學部<br>Undergraduate Program | 電通學院英語學士班<br>International Bachelor Program in Electrical and Communication Engineering |            |
| EEA699          | 強化學習<br>Reinforcement Learning                               | 3               | 碩士班<br>Master Program        | 電機系甲組<br>Department of Electrical Engineering (Program A)                               |            |
| AI503           | 深度學習<br>Deep learning                                        | 3               | 碩士班<br>Master Program        | AI聯盟<br>AI Alliance                                                                     |            |

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

1. 須至少修習一門非學生所屬學系（組、班）之科目（不可包含院必修「AI程式設計」、與他系合開之課程）。

Students are required to take at least one course outside their own department (or program/class). (The college-compulsory course 'Fundamentals of AI Programming' and courses co-offered with other departments are not included.)

2. 修讀本學程之學生須修畢9學分，包含核心課程3學分、專業課程6學分，即授予學程證書

Students enrolled in this program must complete 9 credits, including 3 credits of core courses and 6 credits of professional courses, to be awarded a program certificate.

**四、領域別 Fields of Study：人工智慧 Artificial Intelligence****五、學程召集人 Program Director：胡馬雍 Syed Humayoon Shah****六、負責規劃單位 Responsible Planning Unit：電機通訊學院英語學士班 International Bachelor Program in Electrical and Communication Engineering**