人工智慧技術與應用碩士學位學程

113 學年度

(溯及既往適用於所有在學生)

最低修業年限	1 年
應修學分數	24 學分：含本學程專業課程至少 15 學分(其中專業必修至少 6 學分)；修業期間應修習 2 學期論文研討(書報討論)。論文研討(書報討論)不計入應修學分數。
應修（應選）課程及符合畢業資格之修課相關規定	專業必修： 1. 機器學習(3 學分) 2. 深度學習(3 學分) 3. 人工智慧(3 學分) 4. 最佳化理論/最佳化理論與應用(最多採計 3 學分) 專業選修： 1. 檢測與估計/檢測與估計理論(最多採計 3 學分) 2. 隨機過程(3 學分) 3. 消息理論(3 學分) 4. 影像處理(3 學分) 5. 嵌入式作業系統/**嵌入式系統設計(最多採計** 3 學分) 6. 感測與智慧系統/**智慧系統之感知與決策(最多採計** 3 學分) 7. 機器人學(3 學分) 8. 自主駕駛車技術(3 學分) 9. 自走式機器人(3 學分) 10. 機器人視覺(3 學分) 11. 雲端運算與巨量資料分析(3 學分) 12. 電腦視覺/應用電腦視覺(最多採計 3 學分) 13. 計算機結構/**計算機架構(最多採計** 3 學分) 14. 自然語言處理(3 學分) 15. 資料探勘(3 學分) 16. 圖形識別(3 學分) 17. 深度學習系統與實現(3 學分) 18. 數位積體電路(3 學分) 19. 數位訊號處理/高等數位訊號處理(最多採計3學分) 20. 計算機輔助設計特論(3 學分) 21. 數據學習(3 學分) 22. 數位語音訊號處理(3 學分) 23. 深度學習實驗(3 學分) **24. 互動設計與虛擬實境(3 學分)**
備註	1. 依據本校「國立陽明交通大學學術倫理教育課程實施辦法」，入學第一學期結束前需至「臺灣學術倫理教育資源中心」平台修習學術倫理課程，並通過課程總測驗達及格標準。未通過總測驗之學生不得申請學位考試。 2. 專業必修科目必須於本校電機學院或資訊學院修習。 3. 其他未盡事宜，依據本學程「修業規章」辦理。

Graduate Degree Program of Artificial Intelligence
Academic Year 2024

(The amendment is applied to all students who enrolled in AI Graduate Degree Program)

Minimum Term of Study	1 year
Minimum Credits	24 credits: Including 15 professional course credits (required courses: at least 6 credits). Thesis discussion (seminar): 2 semesters are required, 0 credit for each semester.
Curriculum and Regulations	Required Courses: 1. Machine Learning (3 credits) 2. Deep Learning (3 credits) 3. Artificial Intelligence (3 credits) 4. Optimization Theory/ Optimization Theory and Application (at most 3 credits) Elective Courses: 1. Detection and Estimation/ Detection and Estimation Theory (at most 3 credits) 2. Stochastic Processes (3 credits) 3. Information Theory (3 credits) 4. Image Processing (3 credits) 5. Embedded Operating Systems **/Embedded System Design** (**at most** 3 credits) 6. Sensing and Intelligent Systems **/Perception and Decision Making in Intelligent Systems** (**at most** 3 credits) 7. Robotics (3 credits) 8. Self-Driving Cars (3 credits) 9. Mobile Robots (3 credits) 10. Robotic Vision (3 credits) 11. Cloud Computing and Big Data Analytics (3 credits) 12. Computer Vision/Applied Computer Vision (at most 3 credits) 13. Computer Architecture (3 credits) 14. Natural Language Processing (3 credits) 15. Data Mining (3 credits) 16. Pattern Recognition (3 credits) 17. DL Systems and Inference Realization (3 credits) 18. Digital Integrated Circuits (3 credits) 19. Digital Signal Processing/ Advanced Digital Signal Processing (at most 3 credits) 20. Special Topics in Computer Aided Design (3 credits) 21. Data Learning (3 credits) 22. Digital Speech Processing (3 credits) 23. Deep Learning Labs (3 credits) **24. Interaction design and virtual reality (3 credits)**
Note	1. According to "National Yang Ming Chiao Tung University Academic Ethics Education Program Implementation Rules": "Students should take courses on the "Center for Taiwan Academic Research Ethics Education" platform and pass the required approval standard for the final test before the end of the first semester after enrollment." 2. Required courses must be taken from classes from the College of Electrical and Computer Engineering or the College of Computer Science, NYCU. 3. Matters not covered by this contract shall be settled will be executed in accordance with the "Regulations on Academic Studies for Master Program Students" for the Graduate Degree Program of Artificial Intelligence.

人工智慧技術與應用碩士學位學程(輔所)

113 學年度

應修學分數	12 學分
應修（應選）課程	本學程所開課程任選四門即可，惟該生在原所已修過之課程若與本所所開課程相同性質，不得再修而將其算為輔所之應修學分數內。

Graduate Degree Program of Artificial Intelligence(Minor Program)

Academic Year 2024

Minimum Credits	12 credits
Curriculum and Regulations	A student can choose any four courses from the set of 3-credit courses offered by the program. However, for a course offered by the program, if a student had taken a course that is of the same nature from other department/institute, the student cannot take the course offered by the institute again nor use the credits of the course offered by the institute to fulfill the course requirements.