

國立雲林科技大學114學年度**第二學期**智慧數據科學研究所碩士班課程流程圖

National Yunlin University of Science and Technology

Graduate School of Intelligent Data Science Curriculum in 114 Academic Year

112年3月27日111學年度第3次所課程委員會通過

Approved by the 3rd Curriculum Committee Meeting of the 2022 Academic Year on March 27, 2023

112年9月13日112學年度第1次所課程委員會修正通過

Revised and approved by the 1st Curriculum Committee Meeting of the 2023 Academic Year on September 13, 2023

112年10月20日112學年度第2次所課程委員會修正通過

Revised and approved by the 2nd Curriculum Committee Meeting of the 2023 Academic Year on October 20, 2023

113年04月23日112學年度第3次所課程委員會修正通過

Revised and approved by the 3rd Curriculum Committee Meeting of the 2023 Academic Year on April 23, 2024

114年11月07日114學年度第1次所課程委員會修正通過

Revised and approved by the 3rd Curriculum Committee Meeting of the 2024 Academic Year on November 07, 2025

(講授時數-實習時數-學分數)
(Lecture hours - Laboratory hours - Credit)

第一學年(碩一) 1 st session		第二學年(碩二) 2 nd session	
第一學期 1 st semester	第二學期 2 nd semester	第一學期 1 st semester	第二學期 2 nd semester
必修課程(計 8 學分) Required Courses (Total 10 credits)			
書報討論(一) Seminar (I) 0-2-1	書報討論(二) Seminar (II) 0-2-1	碩士論文(一) Thesis (I) 3-0-3	碩士論文(二) Thesis (II) 3-0-3
專業選修課程(至少 22 學分) Professional Elective Courses (At least 22 credits)			
科技論文閱讀與寫作 Technical Reading and Writing 2-0-2	資料科學專論(一) Data Science (1) 3-0-3	資料科學專論(二) Data Science (2) 3-0-3	資料科學專論(三) Data Science (3) 3-0-3
統計學習與資料探勘 Statistical Learning and Data Mining 3-0-3	最佳化理論與應用 Optimization Theory and Applications <u>英語授課 English-taught</u> 3-0-3	人工智慧產業應用 Industrial Application of Artificial Intelligence 3-0-3	雲端計算與邊緣計算實務專題 Cloud Computing and Edge Computing Practice 3-0-3
最佳化演算法 Optimization Algorithms <u>英語授課 English-taught</u> 3-0-3	密碼學與網路安全 Cryptography and Network Security <u>英語授課 English-taught</u> 3-0-3	啟發式計算 Heuristic Computing 3-0-3	工程研究原理專論 Engineering Research Principles 3-0-3
機器學習模型推運理論與實踐 Theory and practice of machine learning operations 3-0-3	線性代數工程應用 Engineering Applications of Linear Algebra 3-0-3	進階機器人 Advanced Robotics 3-0-3	智慧教育專論 Smart Education 3-0-3
機器人與控制 Robots & Control <u>英語授課 English-taught</u> 3-0-3	生醫應用與數據分析專論 Bio-Medical Application and Data Analytics 3-0-3		人工智慧應用軟體開發 Software Design on Artificial Intelligence Applications 3-0-3
綠色能源科技: 論壇與應用 Green Energy and Technology: Conversion and Applications <u>英語授課 English-taught</u> 3-0-3	類神經網路 Neural Network <u>英語授課 English-taught</u> 3-0-3		智慧教育系統設計與開發 Design and Development of Smart Education Systems <u>英語授課 English-taught</u> 3-0-3
深度學習程式設計 Deep Learning Programming 3-0-3	數據分析與機器學習 Data Analytics and Machine Learning <u>英語授課 English-taught</u> 3-0-3	食品科技專論 Food Technology 3-0-3	
網路安全 Cybersecurity <u>英語授課 English-taught</u> 3-0-3		人工智慧與控制系統理論整合 Integration of Artificial Intelligence and Control Systems 3-0-3	
雲端運算服務 Cloud Computing Services 3-0-3	教育理論與科技應用 Applications of Educational Theory and Science Technology 3-0-3		
智慧科技農業分析 Analysis of Smart Technologies for Agriculture 3-0-3	農業數據大分析 Big Data Analysis in Agriculture 3-0-3		
智慧型機器人專論 Intelligent Robotics 3-0-3	智慧型機器人系統分析與整合 Analysis and Integration of Intelligent Robot Systems 3-0-3		

人工智慧工具應用特論 Research Issues on Artificial Intelligence Tools 3-0-3	智慧感測系統應用 Smart Sensing System and Applications 3-0-3
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智慧農業科技特論 Special Lecture on Smart Agriculture 3-0-3	人機互動 Human-Computer Interaction <u>英語授課 English-taught</u> 3-0-3
影像處理 Image Processing <u>英語授課 English-taught</u> 3-0-3	機器學習 Machine Learning <u>英語授課 English-taught</u> 3-0-3
統計學與在智慧數據分析應用 Application of Statistics in Smart Data Analysis 3-0-3	
人工智慧導論 Introduction to Artificial Intelligence <u>英語授課 English-taught</u> 3-0-3	
數據分析與智慧教育 Data Analysis and Smart Education 3-0-3	

備註：

- 111、112 學年度入學之學生最低畢業總學分數為 32 學分(必修 10 學分及選修 22 學分)。113 學年度起入學之學生最低畢業學分數為 30 學分(必修 8 學分及選修 22 學分)。(註：於 111、112 學年度入學之學生，若因必修學分數異動產生畢業門檻之必修學分數不足，得以選修課程至多 2 門以補足缺漏之必修學分。)
For students admitted in the 2022 (111) and 2023 (112) academic years, the minimum total graduation credits required are 32 credits (10 required credits and 22 elective credits). Starting from the 2024 (113) academic year, the minimum graduation credits will be 30 credits (8 required credits and 22 elective credits). (Note: Students admitted in the 2022 and 2023 academic years who fall short of the required credits due to changes in required course credits may take up to two elective courses to make up for the missing required credits.)
- 學生須於規定修業年限內修畢規定之必修學分及本所開設之選修課程 22 學分。經指導教授及所長同意，得選修其他相關系所開設之課程，以 6 學分為限。
Students must complete the required credits and 22 elective credits offered by the institute within the designated study period. With the approval of their advisor and the institute director, students may take courses offered by other relevant departments, up to a maximum of 6 credits.
- 非本國籍學生就讀本所碩士學位者，若因本所英語授課課程未能滿足畢業學分，經指導教授同意後，可至本校國際人工智慧管理研究所、工程科技研究所、電子工程系碩士班、電機工程系碩士班、資訊工程系碩士班、資訊管理系碩士班及工業工程與管理系碩士班等相關研究所，修習英語授課之課程並承認為畢業學分，不受第二點外系選修學分之限制。
For non-local students pursuing a master's degree at our institute, if the English-taught courses offered by the institute do not meet the required graduation credits, they may, with the approval of their advisor, take English-taught courses from related departments such as International Graduate School of Artificial Intelligence, Graduate School of Engineering Science and Technology, Department of Electronic Engineering, Department of Electrical Engineering, Department of Computer Science and Information Engineering, Department of Information Management, and Department of Industrial Engineering and Management. These courses will count toward graduation credits and are not subject to the 6-credit limit for courses taken outside the institute mentioned in the second point.