國立台灣科技大學 114學年 第2學期　課程大綱

Spring 2026 NTUST Course Outline

授課教師：郭人介

Instructor:Ren-Jieh Kuo

課程名稱：資料探勘應用演算

Course Title：Data Mining Applications - Tutorial

2026/11/3

課程代號： IM3118399 Course Code 學分數： 1 Credits	必選修：必修/半學年 Required/Electve:Required/Half Yr. 先修課程： Prerequisites
節次教室： F10(MA-215) F9(MA-215) Time/Location	
專業核心能力： Core Professional Competencies	具備解決工業工程與管理問題之能力 研究商管議題之能力(Research capability in practical business discipline)
課程網址： Course Website	
課程宗旨： Course Objectives	1. Learn the basics of data mining methods. 2. Be able to code the existing data mining algorithms. 3. Be able to apply data mining to solve real problems.
課程大綱： Outline of Lectures	Week 1: Holiday Week 2: Intro. to course & Weka Week 3: Intro. to Python Week 4: Data EDA and preparation Week 5: Neural networks Week 6: Holiday Week 7: Decision trees and HW 1 practice Week 8: KNN Week 9: SVM Week 10: Holiday Week 11: SOM neural network Week 12: Homework 2 practice Week 13: K-means algorithm Week 14: Association rules mining Week 15: Final project practice Week 16: Final project presentation
授課方式： Method of Instruction	講授 Lecture：40% 分組討論 Group discussion：20% 案例研討 Case study：0% 操做練習 Practical exercises：40% 講授 Lecture：%
教科書： Textbooks	Tan, P.-N., Steinbach, M., Karpatne A., and Kumar, V., Introduction to Data Mining, Second Edition, Pearson Education, Inc., 2019.
參考書目： References	Han, J., Pei, J., and Tong, H., Data Mining: Concepts and Techniques, 4th Edition, Morgan Kaufmann, 2022.
修課須知： Notice	

評量方式： Grading	1. Attendance: 10%. 2. In-class assignment: 20%. 3. Team homework: 30%. 4. Final exam: 20%. 5. Final team project: 20%.
備註說明： Notes	Prerequisites: Statistics and Management