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：李強笙

Instructor:Lee, Chiang-She

課程名稱：多變量分析

Course Title：Multivariate Analysis

2026/11/3

課程代號： IM6107701 Course Code 學分數： 3 Credits	必選修：選修/半學年 Required/Electve:Elective/Half Yr. 先修課程： Prerequisites
節次教室： Time/Location	R2(MA-417) R3(MA-417) R4(MA-417)
專業核心能力： Core Professional Competencies	
課程網址： Course Website	
課程宗旨： Course Objectives	This course focuses on discussing how to use the statistical methods to analyze the multi-normal data. These methods include Wishart distribution, Hotelling T-distribution, Logistic regression, Principle component, Factor analysis, and so on.
課程大綱： Outline of Lectures	The following materials are contained in this class. (1) theories of vectors, matrices and so on, (2) introduction of multi-normal distribution, (3) Wishart distribution and Hotelling T-distribution, (4) Testing of the mean vector, (5) Multiple regression model, (6) Logistic regression model, (7) Principle component, (8) Factor analysis, (9) Cluster analysis.
授課方式： Method of Instruction	講授 Lecture：70% 分組討論 Group discussion：0% 案例研討 Case study：0% 操做練習 Practical exercises：0% 講授 Lecture：Lecture 70%, Group Discussion + Case Study + Practice Training = 30%.%
教科書： Textbooks	Applied Multivariate Statistical Analysis by Richard A. Johnson, etc.
參考書目： References	N/A
修課須知： Notice	N/A
評量方式： Grading	40% Homeworks 30% Midterm 30% Final
備註說明： Notes	Basic Statistics Linear Algebra