

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

2026/6/22

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| 課程代號：IM6107701 Course Code | 必選修：選修/半學年 Required/Elective: Elective/Half Yr. |
| 學分數：3 Credits | 先修課程： Prerequisites |
| 節次教室：R2(MA-417) R3(MA-417) R4(MA-417) Time/Location | |
| 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 |