

開授課程大綱

開課單位系所	清華大學/統計所				
課 號	STAT 5191	班 次		學 分	3
名 稱	應用多變量分析 (Applied Multivariate Analysis)				
授 課 教 師	鄭少為				

一. 內容：

This is an introductory multivariate statistical analysis course designed for graduate students in the Department of Statistics. The aim of the course is to introduce a variety of standard statistical methods used to analyze multivariate data, emphasizing the implementation and interpretations of these methods. In this course, the topics to be covered include:

- Graphical methods for Multivariate Data
- Multivariate Normality
- Multivariate ANOVA
- Principal Components
- Multidimensional Scaling
- Cluster Analysis
- Discriminant Analysis
- Factor Analysis
- Covariance Structure Models
- Canonical Correlation Analysis

二. 教科書及參考書：

Textbook: Johnson, R.A. and Wichern, D.W. (2007), *Applied Multivariate Statistical Analysis*, 6th Edition. Prentice Hall.

References: TBA

三. 成績評量方式：

Homework 30%; Midterm Exam 30%; Final Exam 40%

四. Course webpage: **TBA**

五. Prerequisites：

Knowledge of regression and analysis of variance, basic statistical and probability theory.