朝陽科技大學 098學年度第1學期教學大綱
Advanced Statistical analysis 進階統計分析

當期課號	7342	**Course Number**	7342
授課教師	楊文華	**Instructor**	YANG,WEN HUA
中文課名	進階統計分析	**Course Name**	Advanced Statistical analysis
開課單位	應用外語系碩士班二A	**Department**	
修習別	選修	**Required/Elective**	Elective
學分數	3	**Credits**	3
課程目標	本課程涵蓋推論統計的基本原理，及行為科學研究的實際應用。內容除闡述統計推論的相關基本概念，並強調針對不同性質的資料與研究設計，選擇適當的統計方法。授課重點包括抽樣分配的原理、假設考驗的步驟、信賴區間的估計、t考驗、卡方考驗、不同因子的變異數分析與事後比較、相關與迴歸分析、共變數分析等。另外為顧及學生從事量化研究的實際需要，適時加入統計套裝軟體的應用。藉由循序結構的教材講義，配合例題的講解實作，使學生了解各種統計方法的應用，並能依據樣本結果，對母群體作合理的推論，以培養處理資料時應具備的能力，同時能正確解釋研究結果的意義，奠定研究社會科學問題的基礎。	**Objectives**	This course is designed to cover basic principles of inferential statistics and practical application for the research of behavioral science. The basic concepts of statistical inference, and appropriate statistical methods for different data and research designs are the most emphasized. The main topics include principles of sampling distribution, steps of hypothesis testing, estimation of confidence interval, t-test, Chi-square test, analysis of variance for different factors and multiple comparisons, correlation and regression analysis, and analysis of covariance. In addition, for the needs of graduate students in doing quantitative research, this course also involves the application of statistical package software. Through the highly-organized teaching materials, along with the example explanations and practice, students should understand the usage of different statistical methods, and make reasonable inference about the population according to the sample result. The main goal is to enhance the ability needed in analyzing data, and explain the meaning of research results correctly, as well as to lay a foundation in social science research.
教材	參考教材： 1. 統計學（智高書局）（陳建勝、呂兆文、陳美菁、朱瑞淵、呂明哲等著） 2. SPSS統計應用學習實務 (知城數位科技) (吳明隆 編著)	**Teaching Materials**	
成績評量方式	1. 平時成績 20% 2. 期中考試 40% 3. 期末考試 40%	**Grading**	1. Report and class participation (20%) 2. Midterm examination (40%) 3. Final examination (40%)
教師網頁	http://www.cyut.edu.tw/~whyang		
教學內容	1. 抽樣分配的原理 2. 假設考驗的步驟 3. 信賴區間的估計 4. t考驗 5. 卡方考驗 6. 不同因子的變異數分析與事後比較 7. 相關與迴歸分析 8. 共變數分析	**Syllabus**	1. Sampling distribution 2. Hypothesis test 3. Confidence interval 4. t-test 5. Chi-test 6. Analysis of variance 7. Correlation and regression analysis 8. Covariance analysis