

朝陽科技大學 093學年度第1學期教學大綱
Management Information Systems 管理資訊系統

當期課號	7202	Course Number	7202
授課教師	武季蔚	Instructor	WU,CHEI WEI
中文課名	管理資訊系統	Course Name	Management Information Systems
開課單位	會計系碩士班一A	Department	
修習別	選修	Required/Elective	Elective
學分數	3	Credits	3
課程目標	以計算方法介紹資訊科技於會計、管理及研究方法上的應用。主要討論數學規劃及資料包絡分析(Data Envelopment Analysis)，演化運算及倒傳遞(BP)及自我組織(SOM)類神經網路。	Objectives	This course introduces the information technology applications for accounting, management and research by computational methods. It also focuses on the mathematical programming, DEA(Data envelopment analysis), evolutionary and back propagation(BP) and self organizing maps(SOM) artificial neural networks.
教材	Tim Coelli and etc., An Introduction to Efficiency and Productivity Analysis, Kluwer, 1998 Vanderbei, Robert J., Linear Programming: Foundations and Extensions W.N. Venables and B.D. Ripley, Modern Applied Statistics with S, 2002, Spring Trevor Hastie, Robert Tibshirani and Jerome Fredman, The Elements of Statistical Learning, 2001, Springer R. J. Roiger and M. W. Geatz, Data Mining - A tutorial-based primer, Addison Wesley 2003, 東華書局譯 M. Kantardzic, Data Mining - Concepts, models, methods, and algorithms, John Wiley & Sons, 2003 V. Kecman, Learning and Soft computing, The MIT Press, 2001	Teaching Materials	
成績評量方式	1. 文獻討論 40% , 2. 期中考 30% , 3. 期末考 30% 。	Grading	1. Papers discussion 40%, 2. Midterm Exam. 30%, 3. Final Exam. 30%.
教師網頁	-		
教學內容	1.生產效率簡介，R 軟體簡介 (Coelli, Ch01) 2.生產經濟 (Coelli, Ch02, Ch03) 3.生產力測量指標 (Coelli, Ch03, Ch04) 4.線性規劃-Simplex方法 (Vanderbei, Ch01, Ch02, Ch03) 5.線性規劃-對偶性及敏感度 (Vanderbei, Ch05, Ch07, Ch09) 6.DEA效率分析 (Coelli, Ch06) 7.DEA效率分析進階 (Coelli, Ch07) 8.機率前緣效率分析 (Coelli, Ch08) 9.期中考 10. 機率前緣效率分析進階 (Coelli, Ch09) 11.通用線性模型 (Venable, Ch07) 12.非線性及平滑回歸 (Venable, Ch08) 13.非線性及平滑回歸(2) (Venable, Ch08) 14.樹基方法(Venable, Ch09) 15.多變量資料探索(Venable, Ch10) 16.分類 (Venable, Ch11)	Syllabus	1.Introduction of efficiency and productivity analysis and R environment. (Coelli, Ch01) 2.Production economics (Coelli, Ch02, Ch03) 3.Index numbers and productivity measurement (Coelli, Ch03, Ch04) 4.Linear programming – Simplex method (Vanderbei, Ch01, Ch02, Ch03) 5.Linear programming – Duality and sensitivity (Vanderbei, Ch05, Ch07, Ch09) 6.Efficiency measurement using data envelopment analysis (Coelli, Ch06) 7.Additional topics on DEA (Coelli, Ch07) 8.Efficiency measurement using stochastic frontier (Coelli, Ch08) 9.Mid term Exam 10.Additional topics on stochastic frontiers (Coelli, Ch09) 11.General linear models (Venable,

	17.資料探勘應用(Torgo, Case 1) 18.期末考		Ch07) 12.Non-linear and smooth regression (Venable, Ch08) 13.Non-linear and smooth regression (Venable, Ch08) 14.Tree-Based methods (Venable, Ch09) 15.Exploratory multivariate analysis (Venable, Ch10) 16.Classification (Venable, Ch11) 17.Data mining application (Torgo, Case 1) 18.Final Exam.
--	------------------------------------	--	---

尊重智慧財產權，請勿非法影印。