

朝陽科技大學 095學年度第1學期教學大綱
Engineering Statistics 工程統計

當期課號	3391	Course Number	3391
授課教師	何瑞樑	Instructor	HER,JUI LIANG
中文課名	工程統計	Course Name	Engineering Statistics
開課單位	營建工程系(二進)三A	Department	
修習別	必修	Required/Elective	Required
學分數	3	Credits	3
課程目標	本課程之目的在教導學生了解或然率及統計之基本概念，並闡述其在工程規劃、設計上之應用。主要內容包括或然率之基本概念、隨機現象之解析模式、由觀測資料推定參數及或然率分佈模式之推定等。	Objectives	This course covers the concepts and methods of probability and statistics that are essential for modeling the engineering problems under conditions of uncertainty. Specific topics included are basics probability concepts, analytical models of random phenomena, estimating parameters from observational data, and empirical determination of distribution models.
教材	工程統計 原著/Lapin 編譯/潘南飛 校閱/郭斯傑 呂淑鈴 全威圖書有限公司	Teaching Materials	Modern Engineering Statistics Lawrence L. Lapin ITP:An International Thomson Publishing Company Duxbury
成績評量方式	1.平時成績 30% 2.作業成績 20% 3.期中考 20% 4.期末考 30%	Grading	1.Quiz and Attendance 30% 2.Homework 20% 3.Midterm 20% 4.Final Examination 30%
教師網頁	-		
教學內容	1.緒論 2.統計資料之描述, 陳示及探討 3.統計制程管制 4.回歸分析與預測 5.數學模式建立之統計分析 6.機率 7.隨機變數與機率分配 8.工程應用之重要機率分配 9.抽樣分配 10.估計 11.統計檢定 12.回歸分析的統計推論 13.變異數分析 14.實驗設計	Syllabus	1.Introduction 2.Describing, Displaying, And Exploring Statistical Data 3.Statistical Process Control 4.Making Predictions: Regression Analysis 5.Statistical Analysis In Model Building 6.Probability 7.Random Variables And Probability Distributions 8.Important Probability Distributions In Engineering 9.Sampling Distributions 10.Statistical Estimation 11.Statistical Testing 12.Theory And Inferences In Regression Analysis 13.Analysis Of Variance 14.Experimental Design

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