

朝陽科技大學 098學年度第1學期教學大綱
Introduction to Experimental Methods 實驗方法導論

當期課號	7138	Course Number	7138
授課教師	干裕成	Instructor	KAN,YU CHENG
中文課名	實驗方法導論	Course Name	Introduction to Experimental Methods
開課單位	營建工程系博士班一A	Department	
修習別	選修	Required/Elective	Elective
學分數	3	Credits	3
課程目標	使學生瞭解基本DC與AC電路理論，及對一般應變、位移、應力、壓力、流速、溫度、濕度、扭力、PH值等量測儀器設計原理有一基本認識，另外，也對先進應變資料處理器與示波器之原理及應用，作一基本介紹，期使同學能進一步在結構物上，做物理與力學行為之量測和分析。	Objectives	Theory, methods, and techniques for experimental studies of structural members and systems. Measurement fundamentals; transducers for measuring strain, displacements, force and torque, pressure, and temperature. Physical modeling principles; similitude, materials and their properties, and loading systems for application to studies of elastic and inelastic models. Case studies. Individual project required of each student.
教材	Electronic Instrumentation and Measurement Techniques 作者：William David Cooper	Teaching Materials	Electronic Instrumentation and Measurement Techniques - by William David Cooper
成績評量方式	作業(20%)、期中考(25%)、期末考(25%)、專題及期末報告(40%)	Grading	Homework(20%)、quiz(25%)、final exam(25%)、Final report(40%)
教師網頁	-		
教學內容	基本介紹·應力-應變關係·基本平面彈性理論·破壞力學·應變量測法及相關儀器·試驗及儀具校正·統計方法應用·實驗專題	Syllabus	Introduction, stress-strain relation, elasticity, fracture mechanics, measurement methods, testing equipments and calibration, statistics application in data analysis; experimental project

尊重智慧財產權，請勿非法影印。