朝陽科技大學 095學年度第1學期教學大綱
Application of Nondestructive Testing Evaluation to Construction Engineering 非破壞評估在營建工程之應用

當期課號	7142	Course Number	7142
授課教師	江支弘	Instructor	CHIANG,CHIH HUNG
中文課名	非破壞評估在營建工程之應用	Course Name	Application of Nondestructive Testing Evaluation to Construction Engineering
開課單位	營建工程系碩士班二A	Department	
修習別	選修	Required/Elective	Elective
學分數	3	Credits	3
課程目標	非破壞檢測近年來蓬勃發展，廣泛應用於航太、醫療、材料、電子及機械工業，各種技術推陳出新，在營建工程上亦廣受重視，本課程除將非破壞評估的原理及應用作概略介紹外，並對有關的檢測標準透過儀器的操作加以說明，主題包括混凝土強度評估、混凝土性質測定、鋼結構檢測、鋼筋混凝土結構缺陷檢測、橋樑檢測等。	Objectives	This course covers topics on basics of nondestructive evaluation; utrasonic techniques and in-place estimate of concrete properties; NDT of steel structures; ground penetration radar; infrared thermography; and elastic wave methods for bridge-related structures.
教材	Handouts and assigned reading materials	Teaching Materials	Handouts and assigned reading materials
成績評量方式	實驗報告(六次) 40%</p>期中考50%</p>學習態度10%	Grading	reports 40%</p>midterm exam 50%</p>Attitude 10%
教師網頁			
教學內容	Introductions to nondestructive evaluation; Ultrasonic techniques and in-place estimate of concrete properties; NDT of steel structures; In-place methods to estmate concrete strength; Impact-echo method; Fundamental and applications of ground penetrating radar	Syllabus	Introductions to nondestructive evaluation; Ultrasonic techniques and in-place estimate of concrete properties; NDT of steel structures; In-place methods to estmate concrete strength; Impact-echo method; Fundamental and applications of ground penetrating radar

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