

朝陽科技大學 099學年度第1學期教學大綱
Elasticity 彈性力學

當期課號	7171	Course Number	7171
授課教師	鄭家齊	Instructor	CHENG,CHIA CHI
中文課名	彈性力學	Course Name	Elasticity
開課單位	營建工程系碩士班一A	Department	
修習別	選修	Required/Elective	Elective
學分數	3	Credits	3
課程目標	瞭解彈性力學之基本原理以及在工程上的應用。內容包括二維及三維的應力應變分析及組成律，張量介紹，基本材料破壞理論，以及彈性力學在樑柱及板的應用。	Objectives	A study of the basic theory of elasticity and its application for engineering. The course covers introduction to Cartesian Tensors, stress, strain, constitutive law for linear elastic behavior, 2-D boundary value problems, failure criteria, energy method and beams on elastic foundation.
教材	Elasticity in Engineering Mechanics Arthur P. Boresi, and Ken P. Chong 高立 Advanced Strength and Applied Elasticity A.C. Ugural & S.K. Fenster, 新智 Theory of Elasticity (Third edition) S.P. Timoshenko, J.N. Goodier (reference)	Teaching Materials	Elasticity in Engineering Mechanics Arthur P. Boresi, and Ken P. Chong 高立 Advanced Strength and Applied Elasticity A.C. Ugural & S.K. Fenster, 新智 Theory of Elasticity (Third edition) S.P. Timoshenko, J.N. Goodier (reference)
成績評量方式	作業(30%)，期中考(35%)，期末考(35%)。	Grading	homework(30%)，midterm(35%)，final(35%)。
教師網頁	-		
教學內容	二維及三維的應力應變分析及組成律 張量介紹 基本材料破壞理論 彈性力學在樑柱及板的應用	Syllabus	Introduction to Cartesian Tensors 2D and 3D stress and strain, Constitutive Law for Linear Elastic Behavior Plate theory and beam on elastic foundation

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