

朝陽科技大學 098學年度第1學期教學大綱
Engineering Math 工程數學

當期課號	2822	Course Number	2822
授課教師	洪士程	Instructor	HORNG,SHIH CHENG
中文課名	工程數學	Course Name	Engineering Math
開課單位	資訊工程系(四日)二B	Department	
修習別	必修	Required/Elective	Required
學分數	3	Credits	3
課程目標	1.針對工程數學課程內容,進行講述教學. 2.由於本課程為研究所考試科目之一,故擬以升學考試為其目標,進行課程內容整理,計算題實際演練...等方式實施之. 3.本學期所進行之期中及期末考,擬以各國立大學之相關單元之考古題為主出題,以培養同學未來升學實戰之能力. 4.內容:一階/高階微分方程,拉式轉換,傅立葉級數與轉換。	Objectives	1.Introducton to basic content of Engineering Math. 2.Since Engineering Math is one of courses for applying graduate schools, the teaching goal is to increase the ability of math analysis. 3.The style of Midterm/Final exam is based on the graduate entrance exam of national universities. 4.Content: One/High-order Differential equation, Laplace transform, Fourier series and Transform.
教材	E. Kreyszig, "Advanced Engineering Mathematics", 9th Ed., Willy, 2008. (歐亞書局代理)	Teaching Materials	E. Kreyszig, "Advanced Engineering Mathematics", 9th Ed., Willy, 2008.
成績評量方式	1. 小考: 30% 2. 期中考: 30% 3. 期末考: 30% 4. 出席: 10%	Grading	1. Quiz: 30% 2. Midterm Exam: 30% 3. Final Exam: 30% 4. Participation: 10%
教師網頁	http://www.cyut.edu.tw/~schong/		
教學內容	本課程主要目標包括(1)傳遞工程數學的核心觀念,(2)建構應用數學的技巧,和(3)教授學生以數學進行思考. 本課程的主要教授主題包括: 1. 一階微分方程式 2. 二階微分方程式 3. 高階微分方程式 4. 拉式轉換 5. 級數解 6. 傅立葉級數 7. 傅立葉轉換	Syllabus	The goals of the course include (1) impart a knowledge of core areas of Engineering Math, (2) develop a skill in applying mathematics, and (3) teach the students to think mathematically. The main topics including in the course are as follows: 1. First-order differential equations 2. Second-order differential equations 3. High-order differential equations 4. The Laplace Transform 5. Series solutions 6. Fourier Series 7. Fourier Trnasforms

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