朝陽科技大學 095學年度第2學期教學大綱
Numerical Methods 數值方法

當期課號	3798	Course Number	3798
授課教師	柯志忠	Instructor	Ke,Chih Chung
中文課名	數值方法	Course Name	Numerical Methods
開課單位	資訊工程系(四進)一A	Department	
修習別	選修	Required/Elective	Elective
學分數	3	Credits	3
課程目標	這門課的目標是提供學生數值方法的知識，主題包括：數值方法簡介、數值解與可析解的差異、數值方法的誤差與精確度、各種問題求解的數值方法。在完成這門課之後，學生將可以學習到下面幾點：1.瞭解數值解與可析解；2.瞭解Roots of Equations的數值方法；3.瞭解Linear Algebra Equations 的數值方法；4.瞭解Curve Fitting數值方法。	Objectives	The goal of this course is to provide students with a basic knowledge of the Numerical Methods. The main topics include Numerical Methods introduction, Numerical and Analytical solutions, Error and accuracy of Numerical methods, and Various important NUmerical methods. Students will realize the following backgrounds of this course after completing the course: 1. The difference of Numerical and Analytical solutions; 2. The numerical methods for Roots of Equations; 3. The numerical methods for Linear Algebra Equations ; 4. The numerical methods for Curve Fitting.
教材	應用數值方法(使用MATLAB),作者:Steven C. Chapra, 譯者:王晉中, McGraw-Hill; 初版(2005) ISBN: 986-157-025-X(平裝) 滄海書局	Teaching Materials	Applied Numerical Methods with MATLAB for Engneers and Scientists,作者:Steven C. Chapra, 譯者:王晉中, McGraw-Hill; 初版(2005) ISBN: 986-157-025-X(平裝) 滄海書局
成績評量方式	1.Attendance and Labwork: 50% 2.Midterm: 20% 3.Final Exam: 30%	Grading	1.Attendance and Labwork: 50% 2.Midterm: 20% 3.Final Exam: 30%
教師網頁			
教學內容	1.如何撰寫 MATLAB 程式 2.方程式的根 3.線性代數方程式與矩陣 4.方程式系統的迭代方法 5.曲線配適	Syllabus	1.An Introduction to MATLAB 2.Roots of Equations 3.Linear Algebraic Equations and Matrices 4.Iterative Methods for Systems of Equations 5.Curve Fitting

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