朝陽科技大學 095學年度第1學期教學大綱
Calculus 微積分

當期課號	1324	Course Number	1324
授課教師	武季蔚	Instructor	WU,CHEI WEI
中文課名	微積分	Course Name	Calculus
開課單位	會計系(四日)一C	Department	
修習別	必修	Required/Elective	Required
學分數	3	Credits	3
課程目標	數學模式廣泛應用在企業經營、經濟、統計、財務、管理等社會科學領域，其中微積分尤爲重點。因此，對微積分的了解有助於同學在其主修領域的學習。本課程按函數、極限、微分、積分之順序講授並隨時輔以範例說明其應用情形。	Objectives	Mathematic models are widely applied to business, economics, statistics, financial, management, and other social science fields. Of all these models, calculus is the most important. The realization in calculus will help students to study each major field. This course is to introduce function, limit, differentiation, and integration in order. And some real examples will be given to explain its application.
教材	書名：Brief Calculus An Applied Approach 7th Ed. 2006 作者：Ron Larson, Bruce H. Edwards and David C. Falvo	Teaching Materials	Ron Larson, Bruce H. Edwards and David C. Falvo (2006) Brief Calculus An Applied Approach, 7th Ed.
成績評量方式	1. 小考40%。 2. 期中考30%。 3. 期末考30%。	Grading	1. Quizs: 40%。 2. Middle Term Exam.: 30%。 3. Final Exam.: 30%。
教師網頁			
教學內容	1. 微積分簡介、代數複習 2. 函數及函數應用 3. 極限與連續 4. 導函數的基本定義與微分乘、除、連鎖法則 5. 隱微分、高階導函數及變化率 6. 指數與對數函數及相關微分 7. 極大值與極小值定義與判別 8. 微分於一般及經濟上應用 9. 期中考 10.不定積分介紹極積分技巧 11.指數函數與對數函數之積分 12.定積分及微積分基本定理 13.瑕積分，積分近似直求法 14.定積分經濟商業上應用 15.多變數函數及偏導函數 16.偏導函數經濟上應用 17.極值及條件極值應用 18.期末考	Syllabus	1. Introduction and Algebra review 2. Functions 3. Limit and Continuity 4. Definition of Derivative and Technique 5. Implicit and High Order Derivatives 6. Exponential and Logrithm Functions 7. Extreme Value of Functions 8. Applications in Functions and Business 9. Midterm Exam 10.Indefinite Integral and Techniques 11.Integral of Exponential and Logrithm Functions 12.Definite Integral and Fundamental Theorem of Calculus 13.Improper Integral and Numerical Integral 14.Application of Definite Integral 15.Multivariable Functions and Partial Derivatives 16.Application of Partial Derivatives 17.Extreme and Conditional Extreme Problems 18.Final Exam

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