

淡江大學 九十五 學年度第一學期課程教學計畫表(格式二)

壹、科目名稱：微積分

貳、授課老師：謝忠村

參、開課系所班級：經濟&統計合班

肆、必選修：必修

伍、學分數：3

陸、先修科目：

柒、教學內容及進度：

1. Functions, Limits and the Derivative
 - Functions and Their Graphs
 - Limits & continuity
 - Graphing a Function and Its Tangent Line
2. Differentiation
 - The Rates of change of a Function
 - Basic Rules of differentiation
 - The Product and quotient rules
 - The chain rule
 - Higher-order derivatives
 - Implicit Differentiation and Related Rates
3. Applications of derivative
 - Applications of the 1st & 2nd derivatives
 - Curve Sketching
 - Optimization
4. Exponential and logarithmic functions
 - Exponential functions
 - Logarithmic functions
 - Differentiation of logarithmic and exponential functions
 - Applications in economics
5. Integration
 - Anti-derivatives and the Rules of integration
 - Definite Integrals and Areas
 - Evaluation Definite Integrals
 - Further Applications of Definite Integrals

捌、授課方式：

玖、教學設備：

拾、教材課本：Applied Calculus, 6th edition, by S.T.TAN

拾壹、參考書籍：

拾貳、成績考核方式：

√	平時成績：	20	%
√	期中考成績：	30	%
√	期末考成績：	40	%
	讀書報告：		%
	其他（ <u>助教成績</u> ）：	10	%