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：楊定揮。

參、 開課系所班級：統計系一年級。

肆、 必選修：必修。

伍、 學分數：3。

陸、 先修科目：線性代數，微積分。

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：上機練習，課堂講授。

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：

小考成績	20%
助教成績	10%
期中考成績	30%
期末考成績	40%