Course Description

Department of Mathematics

Nature of the course ■ required □ elective	Area □ Algebra □ Analysis □ Geometry □ Statistics □ Applied Mathematics □ Discrete Mathematics □ Others		
Calculus □ Calculus A ■ Calculus B			
Course number	201 101B1	Section number		Number of credits	3
Course title	Calculus				
Instructor	Shiow-Yu Chang [張秀瑜]				

I.   ＊Contents：

(1) Limits and Continuity: Calculating Limits

(2) Differentiation: Rates of Change, Differentiation Formula, Linear Approximations

(3) Applications of Differentiation: Extreme Values, The Mean Value Theorem, Derivative and the Shapes of Graphs

(4) Integration: The Definite Integral, The Fundamental Theorem of Calculus, The Substitution Rule

(5) Inverse Functions, Transcendental Functions, l'Hospital's Rule

(6) Techniques of Integration.

II.   Textbook：

Stewart : Essential Calculus

III.   ＊Grading scheme：

Homework 20%

Quiz 20%

Midterm Test 30%

Final Test 30%

IV.   ＊Course Goal： The emphasis of our course is on understanding concepts.

V.