

# Course Description

Department of Mathematics

Nature of the course <input checked="" type="checkbox"/> required <input type="checkbox"/> elective		Area 麻煩老師勾選類別，或直接填寫 <u>Calculus</u> 。			
		<input type="checkbox"/> Algebra <input type="checkbox"/> Analysis <input type="checkbox"/> Geometry <input type="checkbox"/> Statistics <input type="checkbox"/> Applied Mathematics <input type="checkbox"/> Discrete Mathematics <input type="checkbox"/> Others			
Calculus <input type="checkbox"/> Calculus A <input checked="" type="checkbox"/> Calculus B					
Course number	201101B1	Section number	11	Number of credits	3
Course title	Calculus B				
Instructor	Tsong- Ming Tsai [蔡聰明]				

I. Contents :

- 1. Functions**
- 2. Limits and their properties**
- 3. Differentiation**
- 4. Applications of Derivatives**
- 5. Intergration**
- 6. Application of Definite Integrals**
- 7. Integrals and Transcendental functions**
- 8. Technique of Integration**

II. Course prerequisite :

**High school mathematics**

III. Reference material ( textbook(s) ) :

**Hass, Weir and Thomas: University Calculus, Early Transcendentals, Second Edition.**

蔡聰明：微積分的歷史步道，三民書局

IV. Grading scheme :

**Midterm exam 40%**

**Final exam 40%**

**Home work 20%**

V. Others :

VI. Course Goal :

**To help students understand , enjoy and apply calculus,  
teach them strategies for solving problems.**