



## 教學計劃表 Syllabus

課程名稱(中文) Course Name in Chinese	商用微積分		學年/學期 Academic Year/Semester	113/1
課程名稱(英文) Course Name in English	Calculus for Business			
科目代碼 Course Code	IB_10110	系級 Department & Year	學一	開課單位 Course-Offering Department
修別 Type	學程 Program	學分數/時間 Credit(s)/Hour(s)	3.0/3.0	
授課教師 Instructor	/黃淑琴			
先修課程 Prerequisite				

### 課程描述 Course Description

微積分是所有自然科學及社會科學的理論基礎，透過該課程讓學生學習基本的分析能力與演算技巧，使其了解數學的推演方法與過程是極為嚴謹的，也因此論證的訓練是極其重要的。

### 課程目標 Course Objectives

1. 使學生經由易懂及易理解基礎微積分表達日常生活所面臨的商業管理問題；
2. 提供良好的解題觀念與微積分應用技巧；
3. 導入生活化商業議題增加學習興趣；
4. 加強基礎微積分應用至商業管理的議題進而銜接至進階管理議題之系統邏輯思維與解題技巧之訓練。

#### 系專業能力

#### Basic Learning Outcomes

課程目標與系專業能力相關性  
Correlation between Course Objectives and Dept.'s Education Objectives

A	具備國際企業管理之知識與能力。Students will have basic knowledge of international business.	●
B	具備邏輯思考、問題分析與解決之能力。Students will be able to identify, analyze and solve business problems with logical thinking.	●
C	具備溝通協調與團隊合作之能力。Students will be able to demonstrate effective communication, coordination and teamwork skills.	
D	具備國際觀及外語溝通之能力。Students will be able to communicate in foreign languages and have an awareness on global and cultural diversity issues.	
E	具備創新、創業之思維與能力To build a the concept and ability for innovation and entrepreneurship	●
F	具備服務設計與產業分析之能力。Students will be able to demonstrate the basic abilities for service design and industry analysis.	○
G	具備國際企業倫理之素養。Students will be able to identify and understand the importance of ethical decision making for international business.	

圖示說明 Illustration : ● 高度相關 Highly correlated ○ 中度相關 Moderately correlated

### 授課進度表 Teaching Schedule & Content

週次 Week	內容 Subject/Topics	備註 Remarks
1	the Cartesian plane the distance formula the midpoint formula translating points in the plane	

2	graphs of equations functions	
3	limits some limit theorems	
4	continuity	
5	the derivative and the slope of a graph	
6	some rules for differentiation	
7	the chain rule	
8	the implicit differentiation	
9	期中考試週	
10	increasing and decreasing functions	
11	local extreme values and the first-derivative test	
12	local extreme values and the first-derivative test	
13	concavity and the second-derivative test	
14	asymptotes, curve sketching	
15	exponential functions	
16	natural exponential functions derivative of exponential functions	
17	the logarithm functions derivative of logarithm functions	
18	期末考試週	

### 教學策略 Teaching Strategies

- 課堂講授 Lecture
  分組討論 Group Discussion
  參觀實習 Field Trip
  其他 Miscellaneous:

### 教學創新自評 Teaching Self-Evaluation

#### 創新教學(Innovative Teaching)

- 問題導向學習(PBL)
  團體合作學習(TBL)
  解決導向學習(SBL)
  翻轉教室 Flipped Classroom
  磨課師 Moocs

#### 社會責任(Social Responsibility)

- 在地實踐 Community Practice
  產學合作 Industry-Academia Cooperation

#### 跨域合作(Transdisciplinary Projects)

- 跨界教學 Transdisciplinary Teaching
  跨院系教學 Inter-collegiate Teaching

- 業師合授 Courses Co-taught with Industry Practitioners

其它 other:

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學期成績計算及多元評量方式 Grading & Assessments

配分項目 Items	配分比例 Percentage	多元評量方式 Assessments							
		測驗 會考	實作 觀察	口頭 發表	專題 研究	創作 展演	卷宗 評量	證照 檢定	其他
平時成績 General Performance		✓	✓	✓					
期中考成績 Midterm Exam		✓							
期末考成績 Final Exam		✓							
作業成績 Homework and/or Assignments			✓						
其他 Miscellaneous (_____)									

評量方式補充說明

Grading & Assessments Supplemental instructions

課堂公佈評量方式

教科書與參考書目 (書名、作者、書局、代理商、說明)

Textbook & Other References (Title, Author, Publisher, Agents, Remarks, etc.)

課堂公佈

課程教材網址(含線上教學資訊, 教師個人網址請列位於本校內之網址)

Teaching Aids & Teacher's Website(Including online teaching information.  
Personal website can be listed here.)

其他補充說明 (Supplemental instructions)

本課程除了週二的正課之外, 所有的修課學生需參加演習課, 時間為每週三下午5:10~6:00。