



## 教學計劃表 Syllabus

課程名稱(中文) Course Name in Chinese	分析導論		學年/學期 Academic Year/Semester	113/2
課程名稱(英文) Course Name in English	Introduction to Analysis			
科目代碼 Course Code	AM_58000	系級 Department & Year	碩士	開課單位 Course-Offering Department
修別 Type	必修 Required	學分數/時間 Credit(s)/Hour(s)	3.0/3.0	
授課教師 Instructor	/王昆?			
先修課程 Prerequisite				

### 課程描述 Course Description

In this course we will cover the following topics:

1. review some subjects in set theory;
2. metric spaces;
3. completeness;
4. compactness;
5. connectedness.

There are homeworks every week including presenting these in class.

### 課程目標 Course Objectives

本課程主要目標以為高等數學分析課程或是相關課程之基礎。

Provide a smooth transition from college analysis to more advanced courses in analysis.

	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	具備專業數學知識及邏輯推理能力。Have well-founded expertise in mathematics and be capable of logical reasoning.	●
B	具備學習其它學科的能力，以期能邁向跨領域研究。Be able to study other fields of science so as to conduct interdisciplinary research in the future	
C	具備獨立思考與解決問題的能力。Be capable of independent thinking and have the problem-solving skills.	○

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	review set theory	
2	review set theory	
3	review set theory	
4	review set theory	
5	metric spaces	

6	metric spaces	
7	completeness	
8	completeness	
9	期中考試週 Midterm Exam	
10	compactness	
11	compactness	
12	compactness	
13	compactness	
14	connectedness	
15	connectedness	
16	connectedness	
17	connectedness	
18	期末考試週 Final Exam	

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	30%	✓							
期末考成績 Final Exam	40%	✓							
作業成績 Homework and/or Assignments	30%		✓						
其他 Miscellaneous (_____)									

評量方式補充說明

Grading & Assessments Supplemental instructions

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.)

lecture notes will be provided (pdf file).

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)