



課 綱 Course Outline  
應用數學系統計科學組

中文課程名稱 Course Name in Chinese	集合論				
英文課程名稱 Course Name in English	Set Theory				
科目代碼 Course Code	AM__40500	班 別 Degree	學士班 Bachelor' s		
修別 Type	學程 Program	學分數 Credit(s)	3.0	時 數 Hour(s)	3.0
先修課程 Prerequisite	分析導論。 Introduction to Analysis.				
課程目標 Course Objectives					
分析導論。 本課程介紹基礎的數學邏輯和集合論知識。 This lecture provides an introduction to the basic concepts and results of mathematical logic and set theory.					
系教育目標 Dept.' s Education Objectives					
1	訓練嚴謹思考與推理能力。 To provide a solid training in rigorous thinking and reasoning ability				
2	奠定理論與應用數學的基礎知識。 To establish well-founded background knowledge in pure and applied mathematics.				
3	具備跨領域學習能力。 To prepare the students for interdisciplinary study in the future.				
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	具備基本數學知識及邏輯推理能力。 Have well-founded background in mathematics and be capable of logical reasoning.			●	
B	具備機率、統計及相關領域的知識與應用能力。 Have the knowledge of probability and statistics and the related field, and the corresponding application ability.				
C	具備軟體應用與統計計算能力。 Be able to use computer software for statistical computation in real applications.				

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

課程大綱

Course Outline

一階邏輯、公理化集合論，基數、序數計算、基礎模型論。

First order logic, Axiomatic Set Theory, Cardinal and Ordinal Arithmetic, Basic Model Theory.

資源需求評估 (師資專長之聘任、儀器設備的配合 . . . 等)

Resources Required (e.g. qualifications and expertise, instrument and equipment, etc.)

邏輯及集合論專長師資為佳。

Preferably an expert in logic or set theory.

課程要求和教學方式之建議

Course Requirements and Suggested Teaching Methods

課堂講授與討論。

Lectures and discussions.

其他

Miscellaneous

撰寫人：應用數學系 魏澤人

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