



課 綱 Course Outline
應用數學系碩士班

中文課程名稱 Course Name in Chinese	分析導論				
英文課程名稱 Course Name in English	Introduction to Analysis				
科目代碼 Course Code	AM_58000	班 別 Degree	碩士班 Master's		
修別 Type	必修 Required	學分數 Credit(s)	3.0	時 數 Hour(s)	3.0
先修課程 Prerequisite	微積分、線性代數 Calculus, Linear Algebra				
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

課程大綱
Course Outline

加強數系，集合論，賦距空間，連續映射，Riemann-Stieltjes積分，函數列，函數級數以及收斂等等研究所需要的數學知識。

Real And Complex Number Systems, Set Theory, Metric Spaces, Continuous Mapping, Riemann-Stieltjes Integral, Sequences And Series of Functions, And Other Analysis Topics Required for Graduate Study.

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.)

本系專任教師(尤以具分析或相關領域專長為佳)。

Faculties of applied math department, expertise in analysis or related areas preferred

課程要求和教學方式之建議

Course Requirements and Suggested Teaching Methods

課堂講授。

Lecture.

其他

Miscellaneous

撰寫人：應用數學系 魏澤人

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