



課 綱 Course Outline

應用數學系博士班

中文課程名稱 Course Name in Chinese	應用隨機過程				
英文課程名稱 Course Name in English	Applied Stochastic Processes				
科目代碼 Course Code	AM__74100	班 別 Degree	博士班 Ph. D.		
修別 Type	選修 Elective	學分數 Credit(s)	3.0	時 數 Hour(s)	3.0
先修課程 Prerequisite	應用機率模式 Applied probability models				
課程目標 Course Objectives					
此為應用機率模型的後續課程 介紹較為深入的隨機過程模式 A continuation of applied probability models. Selected topics on stochastic processes.					
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	具備專業知識及邏輯推理能力 Have well-founded expertise 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

本課程依師生興趣針對特殊類型之隨機過程做較深入討論 如

1. Poisson隨機過程 (Stochastic processes)
2. 更新過程 (Renewal processes)
3. 排隊過程
4. 平穩過程

Selected topics on stochastic processes. Some examples are,

1. Poisson process
2. Renewal process
3. Queuing process
4. Stationary process

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 (所) 專任或兼任教師。

Taught by department' s faculty member

課程要求和教學方式之建議

Course Requirements and Suggested Teaching Methods

講課、習題、考試

Lectures, problem sets and examinations.

其他

Miscellaneous

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撰寫日：100年4月