



## 教學計劃表 Syllabus

課程名稱(中文) Course Name in Chinese	隨機過程與決策研究		學年/學期 Academic Year/Semester	113/1
課程名稱(英文) Course Name in English	Stochastic process and decision making			
科目代碼 Course Code	BM_77700	系級 Department & Year	博士	開課單位 Course-Offering Department
修別 Type	選修 Elective	學分數/時間 Credit(s)/Hour(s)	3.0/3.0	
授課教師 Instructor	/林達榮			
先修課程 Prerequisite				
課程描述 Course Description				
1. 學習隨機過程理論與實務應用之基本知識 2. 利用不確定隨機過程結合相關決策科學之研究議題進行分析 3. 利用實際step by step完成數理模型建構並撰寫小論文投稿研討會或學術期刊為宗				
課程目標 Course Objectives				
This course considers optimal stochastic decision processes from the viewpoint of stochastic programming. It focuses on theoretical properties and on approximate or numerical solution techniques for time-dependent optimization problems with random parameters (multistage stochastic programs, optimal stochastic decision processes). Methods for finding approximate solutions of probabilistic and expected cost based deterministic substitute problems are presented. Besides theoretical and numerical considerations, the proceedings volume contains selected refereed papers on many practical applications to economics and engineering: risk, risk management, portfolio management, finance, insurance-matters and control of robots.				
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 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	課程綱要說明 (09/12)			

2	隨機過程原理 (導讀一) (09/19) 簡單的延遲選擇權	
3	隨機過程原理 (導讀二) (09/26) 專案決策選擇	
4	隨機過程原理 (導讀三) (10/03) 決策樹分析	
5	國慶假期_停課(10/10)	
6	隨機過程原理 (導讀四) (10/17) 實質選擇權分析	
7	期刊論文 (導讀一)/TBA (10/24)	
8	期刊論文 (導讀二)/TBA (10/31)	
9	期中考試週 Midterm Exam (11/07) 提交期中報告 (停課)	
10	決策科學模型建構 (一) (11/14)	
11	決策科學模型建構 (二) (11/21)	
12	決策科學模型建構 (三) (11/28)	
13	隨機過程與決策應用Term Paper討論與撰寫 (一) (12/05)	
14	隨機過程與決策應用Term Paper討論與撰寫 (二) (12/12)	
15	隨機過程與決策應用Term Paper討論與撰寫 (三) (12/19)	
16	隨機過程與決策應用Term Paper討論與撰寫 (四) (12/26)	
17	期末考試週 Final Exam 提交期末報告 停課 (01/02)	
18	彈性週 (01/09)	

### 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: 論文研讀與討論

### 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	30%			✓	✓				
期中考成績 Midterm Exam	30%			✓	✓				
期末考成績 Final Exam	40%		✓	✓	✓				
作業成績 Homework and/or Assignments									
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.)

1. 自編講義/TBA
2. Journal Paper/TBA

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.)

<http://faculty.ndhu.edu.tw/~tyrone/index.html>

其他補充說明 (Supplemental instructions)