

Course Description

Department of Mathematics

Nature of the course ☐ required ☒ elective		Area 麻煩老師勾選類別，或直接填寫_____。 ☐ 代數與數論 ☐ 分析 ☐ 幾何與拓樸 ☐ 計算與應用數學 ☐ 機率 ☐ 統計 ☐ 離散數學 ☐ 其他 ☒ 論文研討、獨立研究			
Calculus ☐ Calculus A ☐ Calculus B					
Course number		Section number	免填	Number of credits	3
Course title	課程名稱：產業中的數學模型及其研究方向 Models and Applications of Mathematics in Business and Industries				
Instructor	教授：翟本喬、林昭廷、林大溢				

* Contents :

Section I : Public Private Partnership

- 1.Introduction to Public Private Partnership
- 2.Introduction to BOT/OT/ROT/BOO Models
- 3.Case study on BOT/OT/ROT/BOO projects
 - 4.Point out the risk and entry barrier of BOT/OT/ROT/BOO projects
 - 5.Learn how to evaluate BOT/OT/ROT/BOO projects
 - 6.Learn how to present a initiative BOT/OT/ROT/BOO projects
 - 7.Learn how to compare BOT/OT/ROT/BOO projects

Section II: 林昭廷

Section III: 翟本喬

1. complexity
2. information theory
3. Page rank
4. failure analysis
5. auction theory

Course prerequisite :

* Reference material (textbook(s)) :

research paper and journal paper related
Journal papers (details to be supplied in the class)

* Grading scheme :

上台報告 40% ，期末 30% ，作業 30% ，總計 100%

* Course Goal :

Section I :

- 1.Understanding Public Private Partnership

2.Comparison and Evaluate models of BOT/OT/BOO/ROT projects

Section II :林昭廷

Section III :翟本喬

To introduce students to industrial applications of mathematics

1. *號為必填欄位
2. 大綱內容字數英文最少 200 字以上