國立東華大學

教學計劃表 Syllabus

課程名稱(中文) Course Name in Chinese	作業研究(一)			學年/學期 Academic Year/Semester	113/1
課程名稱(英文) Course Name in English	Operations Research (I)				
科目代碼 Course Code	GSLM53000	系級 Department & Year	碩士	開課單位 Course-Offering Department	運籌管理研究所
修別 Type	必修 Required	學分數/時間 Credit(s)/Hour(s)	3.0/3.0		
授課教師 Instructor	/陳怡君				
先修課程 Prerequisite					

課程描述 Course Description

This course is designed to let the students familiar with the basic concepts of deterministic operations research, including linear programming, sensitivity analysis and duality, and integer programming. Furthermore, some useful optimization tools will be used to enhance the students' learning. Students will learn how to formulation and model LP/IP problems and use the solution tools to obtain and analyze the solution.

課程目標 Course Objectives

深入分析在作業研究領域中關於線性規劃、整數規劃、決策分析及對局理論等有成效之個案，並對模式之建立、工具之應用及結果之延伸做探

	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	基礎運籌、供應鏈管理知識Foundations on logistics and supply chain management	○
B	運籌系統管理知識 Knowledge on logistics system management	○
C	運籌工具方法知識 Knowledge on analytical tools and methodologies in logistics	●
D	語文表達能力 Language and communication skills	○

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	Introduction	
2	Linear Programming: Model formulation	
3	Linear Programming: Solution tools	
4	Linear Programming: Graphical approach/ Simplex Method	
5	Holiday	
6	Simplex Method	

7	Revised Simplex Method	
8	Sensitivity Analysis	
9	期中考試週 Midterm Exam	
10	Parametric Programming	
11	Parametric Programming	
12	Duality theory of Linear Programming	
13	Integer Programming: Model formulation (Class suspended)	
14	Integer Programming: Solution algorithm	
15	Integer Programming: Solution algorithm	
16	Dynamic Programming/ Final Project Presentation	
17	期末考試週 Final Exam	
18	The 18th week for alternative curriculum	

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:

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 Industy-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:

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									
期中考成績 Midterm Exam									
期末考成績 Final Exam									
作業成績 Homework and/or Assignments									
其他 Miscellaneous (_____)									

評量方式補充說明
Grading & Assessments Supplemental instructions

15% Class Participation & Homework
25% Final Project Presentation
30% Midterm Exam
30% Final Exam

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.)

Textbook 1. PPT by instructor

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.)

其他補充說明 (Supplemental instructions)

Academic Integrity
Academic dishonesty includes, but is not limited to, cheating, facilitating acts of academic dishonesty by others, unauthorized prior possession of exams, submitting work of another person or work previously used, or tampering with the academic work of other students. Any attempt at academic dishonesty will be prosecuted to the fullest possible extent.