



## 教學計劃表 Syllabus

課程名稱(中文) Course Name in Chinese	碳管理		學年/學期 Academic Year/Semester		114/2				
課程名稱(英文) Course Name in English	Carbon Management								
科目代碼 Course Code	MSF_30010	系級 Department & Year	學三	開課單位 Course-Offering Department	管理科學與財金國際學士 學位學程				
修別 Type	學程 Program	學分數/時間 Credit(s)/Hour(s)		3.0/3.0					
授課教師 Instructor	/林容璟								
先修課程 Prerequisite									

### 課程描述 Course Description

This course introduces the fundamental concepts, methods, and tools of carbon management, covering carbon emission sources, carbon footprint, mitigation strategies, and carbon accounting. Behavioral economics concepts, such as bounded rationality, heuristics, biases, and nudging, are integrated to explore how behavior design can promote energy saving and carbon reduction. Through theoretical learning, case studies, and practical carbon accounting exercises, students are expected to acquire core knowledge of carbon management and develop feasible carbon reduction solutions.

### 課程目標 Course Objectives

This course aims to explore the core concepts, methods, and tools of carbon management to address the challenges of global climate change. Through theoretical learning, technology application and modeling, and practical case studies, learners will gain insights into the application of carbon management at the levels of businesses and institutions and its importance in climate change mitigation and adaptation.

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	Course Introduction / Sustainability & Behavior Overview	
2	International Climate Policy and Carbon Management	
3	Concepts & Processes of Carbon Management	
4	Carbon Accounting & Carbon Footprint (I)	
5	Carbon Accounting & Carbon Footprint (II)	
6	Carbon Accounting & Carbon Footprint (III)	
7	Total Carbon Management Model	
8	Carbon Management Maturity Model	
9	期中考試週 Midterm Exam	
10	Behavioral Economics and Energy Saving	
11	Green Nudging and Behavioral Change	
12	Behavioral Intervention & Case Analysis	

13	Carbon Trading and Offsetting	
14	Energy-Saving and Carbon Reduction Strategies	
15	Introduction to iPAS, group final report writing essentials & course review (TBD)	
16	Guest Speaker / Industry Talk (TBD)	
17	Term paper- Final Group Presentation	
18	期末考試週 Flexible teaching and self-directed learning	

### 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:

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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
平時成績(含出缺席) General Performance (Attendance Record)	15%							
期中考成績 Midterm Exam	25%							
期末考成績 Final Exam	0%							
作業成績 Homework and/or Assignments	25%							
其他 Miscellaneous (Term Paper)	35%							

評量方式補充說明

Grading & Assessments Supplemental instructions

If your absences have four times (including) above, your grade of this course would be below "C"

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. Zhou, S. W. W. (2020). Carbon Management for a Sustainable Environment. Springer.
2. Singh, P., Daga, S., & Yadav, K. (2024). Nudging Green: Behavioral Economics and Environmental Sustainability. Springer.

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.)

TBD

其他補充說明 (Supplemental instructions)

The schedule is subject to change by students' learning condition.