



課 綱 Course Outline

管理學院管理科學與財金國際學士學位學程學士班

中文課程名稱 Course Name in Chinese	碳管理				
英文課程名稱 Course Name in English	Carbon Management				
科目代碼 Course Code	MSF_30010	班 別 Degree	學士班 Bachelor's		
修別 Type	學程 Program	學分數 Credit(s)	3.0	時 數 Hour(s)	3.0
先修課程 Prerequisite					

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.

系教育目標
Dept.'s Education Objectives

1	培育具備良好數量分析能力之管理人才。 Cultivating management professionals with outstanding ability in quantitative analysis.
2	培育具備財務金融專業知識之人才。 Cultivating professionals with finance-specific knowledge.
3	培育具備國際視野與外語溝通能力之人才。 Cultivating professionals with a global vision and the ability in foreign-language communication.
4	培育具備決策分析與問題解決之技能的管理人才。 Cultivating management professionals with knowledge and skills in decision analysis and problem solving.

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	能以數量方法分析與解決問題。 Using quantitative methods to analyze and solve problems.	
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B	具備財務金融領域之分析能力。 Equipped with the ability to analyze finance.	
C	能善用資訊科技進行資料分析、統整與呈現。 Using information technology to analyze, integrate, and present data.	
D	具備國際視野與專業外語能力。 Equipped with a global vision and specialized foreign language proficiency.	
E	具備掌握財經時事議題及研判財經趨勢之能力。 Equipped with the ability to master topics of finance and economy, and other current news, and to diagnose financial and economic tendencies.	
F	具備一般管理的基礎知識。 Equipped with basic knowledge of management in general.	

圖示說明 Illustration : ● 高度相關 Highly correlated ○中度相關 Moderately correlated

課程大綱 Course Outline	
1. Climate Change Basics, Net Zero, and Decarbonization 2. Carbon Footprint Measurement 3. Carbon Trading and Offsetting 4. Carbon Management Concepts 5. Total Carbon Management Model 6. Carbon Management Maturity Model 7. Carbon Reduction Solutions	
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.)	
1. Professional faculty members' support. 2. Textbook: Shelly W. W. Zhou (2020), Carbon Management for a Sustainable Environment, Springer. Molthan-Hill, Petra, Winfield, Fiona, Howarth, Richard, and Muhammad Mazhar (2023), The Handbook of Carbon Management: A Step-by-Step Guide to High-Impact Climate Solutions for Every Manager in Every Function (1/e), Routledge.	
課程要求和教學方式之建議 Course Requirements and Suggested Teaching Methods	
Methods: 1. Lectures 2. Case analysis and reports 3. One-minute paper 4. Assignments Grading: 1. Class participation: 20% 2. Case Reports: 20% 3. Midterm exam: 30% 4. Final Exam: 30%	
其他 Miscellaneous	