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②國玄東華大學

教學計劃表 Syllabus

4-4-1								
課程名稱(中文) Course Name in Chinese	催化材料				學年/學期 Academic Year/Se	113/2		
課程名稱(英文) Course Name in English	Catalysis Material							
科目代碼 Course Code	MSM0130	系級 Department 碩士 (& Year		開課單位 Course-Offering Department	材料科學與工程學系			
修別 Type	選修 Elective	學分數/時間 Credit(s)/Hour(s)			3.0/3.0			
授課教師 Instructor	/傅彥培							
先修課程 Prerequisite								
課程描述 Course Description								

- 1. Introduction and fundamental concepts of catalysts
- 2. Kinetics of catalysed reactions
- 3. Preparations of Catalysts
- 4. Evaluation of physical and chemical properties of catalysts
- 5. Evaluation of catalytic properties of catalysts
- 6. Transport phenomena in catalytic
- 7. Dynamic phenomena in catalytic systems
- 8. Possibilities of intensification of catalytic processes
- 9. Catalytic processes in protection of environment

課程目標 Course Objectives

1. Concepts of Modern Catalysis and Kinetics 2. Recognize, understand, the technical terminology used in surface science

	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	具備材料科學所需的進階物理、化學及數學的知識。Acquire required advanced physical, chemical, and mathematic knowledge for materials science and engineering.	0
В	具備材料科學的進階專業知識,並能應用於解決工程上之問題。Acquire required advanced professional knowledge for materials science and engineering, applicable in solving engineering problems.	•
С	具備獨立研究之能力。Equipped with capabilities of independent research.	
D	具備專業道德及責任感,與良好的溝通及團隊合作的能力。Acquire professional morality and responsibility, and capability of quality communication and team cooperation.	0
Е	具備適當的英文能力,應用於學習與交流。Acquire English capability used for learning and interaction.	0

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 and fundamental concepts of catalysts	
2	Introduction and fundamental concepts of catalysts	

3	Kinetics of catalysed reactions					
4	Kinetics of catalysed reactions					
5	Preparations of Catalysts					
6	Preparations of Catalysts					
7	Evaluation of physical and chemical properties of catalysts					
8	Evaluation of physical and chemical properties of catalysts					
9	期中考試週 Midterm Exam					
10	Evaluation of catalytic properties of catalysts					
11	Evaluation of catalytic properties of catalysts					
12	Transport phenomena in catalytic					
13	Transport phenomena in catalytic					
14	Dynamic phenomena in catalytic systems					
15	Dynamic phenomena in catalytic systems					
16	16 Possibilities of intensification of catalytic processes					
17 Catalytic processes in protection of environment						
18	期末考試週 Final Exam					
	教 學 策 略 Teaching Strategies					
	7. 7 A P Teaching Offategree					
✓ 課堂講	授 Lecture					
	授 Lecture					
其他Mi	授 Lecture					
其他Mi 創新教學(授 Lecture					
其他Mi 創新教學(問題導	授 Lecture					
期共他Mi 創新教學(問題導 翻轉教	授 Lecture					
創新教學(問題導 翻轉教 社會責任(授 Lecture					
創新教學(問題導 翻轉教 社會責任(在地實	授 Lecture					
創新教學(問題等 計會責任(古也實 跨域合作(授 Lecture					
割新教學(副新教學等 副翻轉責任(」跨域合作(」跨界教	授 Lecture					
創新教學(制新教學等 制制期期 制動力 計劃, 計劃, 計劃, 計劃, 計劃, 計劃, 計劃, 計劃, 計劃, 計劃,	授 Lecture					
割新教學(副新教學等 副翻轉責任(」跨域合作(」跨界教	授 Lecture					

學期成績計算及多元評量方式 Grading & Assessments									
配分項目	配分比例	記分比例 多元評量方式 Assessments							
Items	Percentage	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(含出鉄席) General Performance (Attendance Record)	20%		~						
期中考成績 Midterm Exam	30%	>							
期末考成績 Final Exam									
作業成績 Homework and/or Assignments	10%		~						
其他 Miscellaneous (口頭報告)	40%			~					

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.)

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)