

 **國立東華大學**
教學計劃表 Syllabus

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| 課程名稱(中文) Course Name in Chinese | 催化材料 | | | 學年/學期 Academic Year/Semester | 113/2 |
| 課程名稱(英文) Course Name in English | Catalysis Material | | | | |
| 科目代碼 Course Code | MS__55400 | 系級 Department & Year | 碩士 | 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 | | | | | |
| 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 | | | | |

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| 13 | Transport phenomena in catalytic | |
| 14 | Dynamic phenomena in catalytic systems | |
| 15 | Dynamic phenomena in catalytic systems | |
| 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

- ☒ 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 Industry-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 | 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 | | | | | | | | | |
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| 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.) | | | | | | | | | |
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| 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.) | | | | | | | | | |
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| 其他補充說明 (Supplemental instructions) | | | | | | | | | |
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