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## ②國玄東華大學

# 教學計劃表 Syllabus

課程名稱(中文) Course Name in Chinese	有機化學(三)			學年/學期 Academic Year/Se	學年/學期 Academic Year/Semester			
課程名稱(英文) Course Name in English	Organic Chemistry(Ⅲ)							
科目代碼 Course Code	CHEM31500	系級 Department 學三 & Year		開課單位 Course-Offering Department	化學系			
修別 Type	學程 Program	學分數/時間 Credit(s)/Hour(s)		2	2.0/2.0			
授課教師 Instructor	/林哲仁							
先修課程 Prerequisite								
AB CO LHY L. Courses Description								

#### 課程描述 Course Description

有機化學是探討有機分子的結構與其性質關係的學問,藉由對有機小分子行為的了解,進而推展至複雜分子的合成與設計,是本課程的主要目的。

#### 課程目標:

熟悉基礎有機化學結構、化學反應、有機光譜學

- 1. 學習基礎有機化學原理、化學反應與生物有機分子,結構與活性的關係。
- 2. 了解有機化合物的性質、活性與應用。
- 3. 建立對於有機化合物的性質與特性的認識,藉由演講說明與習作練習達成此目標。

#### 課程目標 Course Objectives

透過逆合成分析的探討,讓學生了解以什麼樣的起始,經由那些方法可以最有效及最經濟的方式得到目標產物

	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	具備化學基礎知識	•
В	具備獨立思考及分析解決問題之能	•
С	具備化學專業知	•
D	具備執行化學實驗之能力	0
Е	具備國際視野與外語能力	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	Aldehydes and Ketones I. Nucleophilic Addition to the Carbonyl Group	
2	Aldehydes and Ketones I. Nucleophilic Addition to the Carbonyl Group	
3	Carboxylic Acids and Their Derivatives: Nucleophilic Addition- Elimination at the Acyl Carbon	

4	Carboxylic Acids and Their Derivatives: Nucleophilic Addition— Elimination at the Acyl Carbon						
5	Carboxylic Acids and Their Derivatives: Nucleophilic Addition- Elimination at the Acyl Carbon						
6	Reactions at the alpha Carbon of the Carbonyl Compounds: Enols and Enolates						
7	Reactions at the alpha Carbon of the Carbonyl Compounds: Enols and Enolates						
8	Reactions at the alpha Carbon of the Carbonyl Compounds: Enols and Enolates						
9	期中考- Midterm Exam						
10	Condensation and Conjugate Addition Reactions of Carbonyl Compounds: More Chemistry of Enolates						
11	Compounds: More Chemistry of Enolates  Condensation and Conjugate Addition Reactions of Carbonyl Compounds: More Chemistry of Enolates						
12	Condensation and Conjugate Addition Reactions of Carbonyl Compounds: More Chemistry of Enolates						
13	Condensation and Conjugate Addition Pagetions of Carbonyl						
14	Amines						
15	Amines						
16	Amines						
17	期末考試週 Final Exam						
18							
	教學策略 Teaching Strategies						
✓ 課堂講	授 Lecture						
其他Mi	scellaneous:						
	教學創新自評 Teaching Self-Evaluation						
創新教學(	Innovative Teaching)						
問題導	向學習(PBL)                        解決導向學習(SBL)						
翻轉教	室 Flipped Classroom						
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 othe	r:						

學期成績計算及多元評量方式 Grading & Assessments									
配分項目	多元評量方式 Assessments								
Items	配分比例 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(含出缺席) General Performance (Attendance Record)	5%	>							
期中考成績 Midterm Exam	45%	>							
期末考成績 Final Exam	45%	>							
作業成績 Homework and/or Assignments	10%	<b>&gt;</b>							
其他 Miscellaneous									

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.)

- 1. Organic Chemistry, Solomons
- 2. The Art of Writing Reasonable Organic Reaction Mechanisms, Grossman
- 3. Organic Chemistry, Carey

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)