

Organic Chemistry2

Course Name	Course type (credit/hours)	Elective course(3/3)	Course code	D048
	Target students Division/major/grade	Applied Chemical & Biological Engineering/Sophomore	Opening semester	2021 2ND SEMESTER
	Class time and classroom	Mon D(Pa1107)Thu D(Pa1107)	English Grade	A(100%English)
Reference to this course	Prerequisite courses	유기화학1		
	Related basic courses	화학1, 2		
	Recommended concurrent courses			
	Related advanced courses	천연물이용학, 의약화학		

Instructor	Name (title/division)		Junwon Choi(Assistant Professor, Molecular science & Technology)		
	Office Room Number		Office phone Number	2449	e-mail
	Office hours	화 4:30-5:30		Homepage address	https://www.jwchoigroup.com/
Teaching Assistant	Name (title/division)				
	Office Room Number	화공실험동 202호 실	Office phone Number	2396	e-mail

1. Introduction

2. Course Objectives

We learn the characteristics and reactions of compounds with various and complex structures, and we use them to cultivate the ability to synthesize new materials.

- 1) Understand the characteristics of alcohol and various carboxy compounds, their various reactions, and the synthesis method of new substances using these reactions.
- 2) Understand the structural characteristics of benzene compounds and their substitution reactions.
- 3) Understand the properties of amine compounds that are important for in vivo reactions and their reactions.
- 4) Understand the chemical conversion method for synthesizing new compounds using all previously learned compounds.

3. Class types and activities

4. Teaching Method

<input checked="" type="checkbox"/> lecture	<input checked="" type="checkbox"/> discussion and debate
<input type="checkbox"/> team project(presentation and case studies)	<input type="checkbox"/> experiments(role-playing,etc)
<input type="checkbox"/> designing and production	<input type="checkbox"/> on-site learning(on-site training)
<input type="checkbox"/> others	

5. Support Systems in Use

<input checked="" type="checkbox"/> AjouBb	<input type="checkbox"/> automatic recording system	<input type="checkbox"/> web-based assignment
<input type="checkbox"/> cyber lecture	<input checked="" type="checkbox"/> online content	
<input type="checkbox"/> class behavior analyzing system	<input type="checkbox"/> others	

6. Teaching Tools

<input checked="" type="checkbox"/> PBL(Problem Based Learning)	<input type="checkbox"/> CBL(Case Based Learning)	<input type="checkbox"/> TBL(Team Based Learning)
<input type="checkbox"/> UR(Undergraduate Research)	<input checked="" type="checkbox"/> FL(Flipped Learning)	<input type="checkbox"/> DSAL(Data Science Active Learning)
<input type="checkbox"/> others		

7. Knowledge and ability required for taking this course

Taking organic chemistry 1 is essential, and understanding how to use molecular models helps understand three-dimensional molecular structures.

8. Method of Evaluation

Evaluation Item	The Number of Times	Evaluation Proportion	Remarks
Attendance			
midterm exam	2	30	
final exam	1	30	
quiz			
presentation			
discussion		20	
homework	10	20	
etc			
study hours			

9. Textbook and supplementary material

Main/Sub	Title (Web-site)	Writer	Publisher	Publication year
Main	Organic Chemistry 8th edition	William H. Brown/Brent L. Iverson/Eric Anslyn/Christopher S. Foote	Cengage	2018

10. Class system and Class schedule

The class is conducted by each compound type in the order of Text. Each chapter deals with the nomenclature of the structure, the understanding of the physicochemical properties, the understanding of the response, and the synthesis method that applies it.

< Class Schedule >

* language : K-korean, E-English

Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
1	Review of Organic Chemistry 1		Junwon Choi			
2	Chapter 11 : Ethers, Sulfides, and Epoxides		Junwon Choi			
3	Chapter 15 : Organometallic Compounds		Junwon Choi			

< Class Schedule >

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Weeks	Topics	language	Instructor	Teaching Method	Evaluation Method	Matter to be prepared
4	Chapter 16 : Aldehydes and Ketones		Junwon Choi			
5	Chapter 16 : Aldehydes and Ketones		Junwon Choi	Test 1		
6	Chapter 17 : Carboxylic acid		Junwon Choi			
7	Chapter 18 : Derivatives of Carboxylic acid		Junwon Choi			
8	Mid term Exam.		Junwon Choi			
9	Chapter 19 : Enolate Anions and Enamines		Junwon Choi			
10	Chapter 19 : Enolate Anions and Enamines		Junwon Choi			
11	Chapter 20 : Aromatics : Benzene and Derivatives		Junwon Choi	Test 2		
12	Chapter 21 : Aromatics : Reactions of Benzene and Derivatives		Junwon Choi			
13	Chapter 22 : Amines		Junwon Choi			
14	Chapter 23 : Conjugated Systems		Junwon Choi			
15	Chapter 13: NMR spectroscopy		Junwon Choi			
16	Final Exam		Junwon Choi	Final		

11. Other items of notification