Course number	U-LAS13 10009 LE60		
Course title (and course title in English)	Basic Organic Chemistry II-E2 Basic Organic Chemistry II-E2	Instructor's name, job title, and department of affiliation	Institute for Chemical Research Assistant Professor,SINGH, Vaibhav Pal
Group	Natural Sciences	Field(Classification)	Chemistry(Foundations)
Language of instruction	English	Old group	Group B
Number of credits	2		
Number of weekly time blocks	1	Class style	Lecture (Face-to-face course)
Year/semesters	2026 • Second semester		
Days and periods	Tue.4	Target year	Mainly 1st & 2nd year students
Eligible students	For science students		

[Overview and purpose of the course]

This course is intended for Japanese and international students registered in natural science majors who are interested in learning chemistry in English.

Basic Organic Chemistry II explains the fundamental concepts behind the reactivity of organic compounds. This course can be taken alone or in combination with Basic Organic Chemistry I.

[Course objectives]

Students will be able to describe basic organic reaction mechanisms (nucleophilic substitutions, eliminations and electrophilic additions) and apply this knowledge to predict the major product in organic reactions, such as those involving hydrocarbons, alcohols, alkyl halides and alkenes.

[Course schedule and contents)]

The semester will be divided as follows:

Week 1: General Concepts and Stereoisomerism
Week 2: Enantiomers and Optical Activity
Week 3: Resonance (Review)
Week 4: Chemical Reactivity
Week 5: Substitution Reactions (Part 1)
Week 6: Substitution Reactions (Part 2)
Week 7: Mid-term Exam
Week 8: Alkene and Elimination Reactions (Part1)
Week 9: Alkene and Elimination Reactions (Part 2)
Week 10: Substitution vs. Elimination
Week 11: Addition Reactions (Part 1)
Week 12: Addition Reactions (Part 2)
Week 13: Synthesis
Week 14: Review of the Main Concepts
Week 15: Final Exam
Week 16: Feedback

Continue to Basic Organic Chemistry II-E2(2)↓↓↓

Basic Organic Chemistry II-E2(2)

[Course requirements]

None

[Evaluation methods and policy]

Evaluation will be based on class attendance and active participation (30%), mid-term exam (30%) and final examination (40%).

[Textbooks]

David Klein 『Organic Chemistry』 （Wiley） ISBN:1118452283 （not mandatory）

[References, etc.]

（References, etc.）

Handouts will be provided at the beginning of each lecture.

[Study outside of class (preparation and review)]

Students should review the course materials after each class.

[Other information (office hours, etc.)]

Teaching Approach:

The new concepts are introduced in a skill-building format with practice problems (in class) and exercises (in class) to help students master the course material (no homework).

[Essential courses]

Faculty of Science