

科目ナンバリング		U-LAS13 10009 LE60									
授業科目名 <英訳>		Basic Organic Chemistry II-E2 Basic Organic Chemistry II-E2				担当者所属 職名・氏名		化学研究所 助教 SINGH, Vaibhav Pal			
群	自然科学科目群			分野(分類)	化学(基礎)			使用言語	英語		
旧群	B群	単位数	2単位	週コマ数	1コマ	授業形態	講義 (対面授業科目)				
開講年度・ 開講期	2025・後期		曜時限	火4		配当学年	主として1・2年生	対象学生	理系向		
[授業の概要・目的]											
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.											
[到達目標]											
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.											
[授業計画と内容]											
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											
[履修要件]											
特になし											

Basic Organic Chemistry II-E2(2)へ続く ↓ ↓ ↓

Basic Organic Chemistry II-E2(2)

[成績評価の方法・観点]

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

[教科書]

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

[参考書等]

(参考書)

Handouts will be provided at the beginning of each lecture.

[授業外学修 (予習・復習) 等]

Students should review the course materials after each class.

[その他 (オフィスアワー等)]

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).

[主要授業科目 (学部・学科名)]

理学部