科目ナンバリング	U-LAS13 10008 LE60						
授業科目名<英訳>	Basic Organic Chemistry I-E2 Basic Organic Chemistry I-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・前期	曜時限	火4	配当学年	主として1・2回生	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 I explains the fundamental concepts of organic chemistry, aiming to help students understand the structures and properties of organic compounds. This course can be taken alone or in combination with Basic Organic Chemistry II.

[到達目標]

Students will be able to analyze the structure of organic compounds and predicting their properties based on their bonding, atomic orbitals, hybridization state, intermolecular forces and resonance structures.

[授業計画と内容]

The semester will be divided as follows:

Week 1: Introduction to Organic Chemistry
Week 2: Atomic Orbitals
Week 3: Molecular Representations
Week 4: Geometry of Compounds
Week 5: Intermolecular Forces
Week 6: Resonance
Week 7: Mid-term Exam
Week 8: Acids and Bases (Part 1)
Week 9: Acids and Bases (Part 2)
Week 10: IUPAC (International Union of Pure and Applied Chemistry) Nomenclature (Part 1)
Week 11: IUPAC Nomenclature (Part 2)
Week 12: Conformations of Alkanes and Cycloalkanes
Week 13: Amino Acids and Proteins
Week 14: Classification and Structures of Carbohydrates
Week 15: Final Exam
Week 16: Feedback

[履修要件]

This course can be taken alone or in combination with Basic Organic Chemistry II.

Basic Organic Chemistry I-E2(2)へ続く↓↓↓

Basic Organic Chemistry I-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