科目ナンバリング					
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　講師　Amelie Perron(アメリ ペロン)		
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	2024・前期	曜時限	火5	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 following topics will be covered:

(1) Introduction to Organic Chemistry
(2) Chemical Bonding
(3) Atomic Orbitals
(4) Hybridization States
(5) Molecular Representations
(6) Resonance Structures
(7) Intermolecular Forces
(8) Molecular Polarity
(9) Acids and Bases
(10) Proton Transfer Reactions
(11) IUPAC (International Union of Pure and Applied Chemistry) Nomenclature
(12) Alkanes and Cycloalkanes
(13) Amino Acids and Proteins
(14) Classification and Structures of Carbohydrates

[履修要件]

特になし

[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%).

Basic Organic Chemistry I-E2(2)へ続く↓↓↓

Basic Organic Chemistry I-E2(2)

[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).