| 科目ナンバリング U-LAS13 10025 LE60 | | | | | | | | | | | | | | | | |
|-----------------------------|---------|---|-------|------------|--------|----|---|------|---------|------------|----|-----------|-----------------------------|---|-----|--|
| 授業科目 <英訳> | | Revisiting Basic Organic Chemistry I-E2 Revisiting Basic Organic Chemistry I-E2 職 | | | | | | | 属 工学研究科 | | | 講師 | 講師 LANDENBERGER , Kira Beth | | | |
| 群 | 自然科 | 学科目群 | 分野 | 野(分類) | 化学(基礎) | | | | | | 使用 | 吏用言語 英語 | | | | |
| 旧群 | B群 | 単位数 | 2単位 | ป | 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 7 | K 4 | :4 | | | 配当学年 | | 主 主として 2 回 | | 生う | 対象学 | 生 | 理系向 | |

[授業の概要・目的]

This course provides an opportunity for students to revisit material covered in the first semester of basic organic chemistry using English. The two purposes of this course are to ensure that students have a good foundation in basic organic chemistry and to proficiently apply these concepts in English. This course is beneficial for students who have already taken the first semester of basic organic chemistry or who have an interest in learning organic chemistry in English.

[到達目標]

This course aims to help students have good understanding of basic organic chemistry, particularly in regards to the fundamentals of chemical bonding, acid and base chemistry, stereochemistry, alkanes, alkenes, alkynes and select organic reactions.

[授業計画と内容]

The course is planned to cover the following topics:

1. Introduction to organic chemistry and review of atoms, electronic structure, bonding, shapes of molecules, hybridization and polarity

2. Introduction to basic hydrocarbons (alkanes, cycloalkanes, alkenes, etc.), other functional groups, isomers, naming, drawing styles and chirality

3. Conformation, stability of compounds and resonance

4. First reaction: acid-based reactions

5. Introduction to other basic organic reaction mechanisms

It is expected that each topic will be covered in approximately 2 to 5 sessions based upon the needs of the class. The schedule can be subject to change.

A feedback session will take place one week after the final exam.

Total:14 classes and 1 feedback class

[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 (20%), homework (10%), quizzes (30%), and a final exam (40%).

[教科書]

William H. Brown, Brent L. Iverson, Eric. V. Anslyn, Christopher S. Foote, and Sheila A. Iverson ^POrganic Chemistry (8th or 9th editions)^a (Cengage Learning, 2023) ISBN:978-0-357-45186-1 (This textbook is

Revisiting Basic Organic Chemistry I-E2(2)へ続く

Revisiting Basic Organic Chemistry I-E2(2)

the main textbook used for the class. It is strongly recommended but not required.) John McMurry 『Organic Chemistry with Biological Applications (2nd or 3rd editions)』 (Cengage Learning) ISBN:9781285842912 (This book was used in past courses and can provide a useful reference. It is NOT mandatory.)

[授業外学修(予習・復習)等]

Students should complete assigned homework and turn it in by the due date (usually one week later). Assignments will be given on and submitted using PandA unless otherwise noted.

[その他(オフィスアワー等)]

Office hours are welcome and available by appointment.

[主要授業科目 (学部・学科名)]