| 科目ナンバリング U-LAS13 10009 LE60 | | | | | | | | | | | |
|---|----------------|-------------------|-----|------|--------------|----------|-----|---------|---------------------|----------|----|
| 授業科目名 Basic Organic Chemistry Basic Organic Chemistry | | | | | 担当者所 職名・氏 | 所属 工学研究科 | | | 准教授 Juha Lintuluoto | | |
| 群 | 自然科 | 自然科学科目群 分野(分類) 化等 | | | | -(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 | 美形態 講義(| | (対面授業科目) | |
| 開講年度・ 開講期 | 2025・後期 曜時限 木2 | | | 配 | 当学年 | 主として | 1回生 | 対象学 | 生理系向 | | |

[授業の概要・目的]

The purpose is to provide the basics of organic chemistry for science students. Specifically, lectures and exercises are undertaken on the physical properties, synthetic methods, and basic reactivity of unsaturated compounds, and alkyl halides which are important organic compounds as basic raw materials for the chemical industry.

All Department of Chemical Science and Technology students (groups T17-T22) who passed Basic Organic Chemistry I course can take this course (Thu 2), which covers the corresponding Japanese course (基礎有機化学II). If the time overlaps with the Physical Chemistry Class, consult the course instructors directly.

This course gives the opportunity to learn English while studying chemistry, an important skill for chemists.

[到達目標]

Students will acquire the basics of organic chemistry, which is essential for fully understanding more deeply organic chemistry and to prepare for the second year studies.

[授業計画と内容]

Lectures will be given on the basics of organic compounds and reactions, and the naming of organic compounds in Chapter 3 and Chapters 7 to 9 of the textbook described below.

The items and contents of the lectures are as follows.

Chapter 3 Stereoisomerism and Chirality: 3 lectures

Chapter 7 Alkynes: 3 lectures

Chapter 8 Haloalkanes, Halogenation, and Radical Reactions: 3 Lectures

Chapter 9 Nucleophilic Substitution Reaction and - Elimination Reaction: 3 lectures

Organic Compound Nomenclature: 2 lectures

Feedback: 1 lecture

[履修要件]

This course is suitable for Department of Chemical Science and Technology students from groups T17-T22 who passed Basic Organic Chemistry I course.

[成績評価の方法・観点]

Exercises during the lecture and report submissions will be set as normal points (maximum 10 points) and added to the results of the regular examination (maximum 90 points). A total of maximum 100 points will be given, and 60 points or more will result passed grade.

[教科書]

Brown, Iverson, Anslyn, Foote Organic Chemistry (Cengage Learning) ISBN:978-0-357-45186-1 (9th Edition, Chapters 3, 7-9)

村上正浩監訳 『ブラウン有機化学(上)』(東京化学同人)ISBN:978-4807907793

Basic Organic Chemistry II-E2(2)へ続く

| Basic Organic Chemistry II-E2(2) |
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| Japanese version of Brown, Iverson, Anslyn, Foote is also OK. |
| [参考書等] |
| (参考書) 授業中に紹介する |
| [授業外学修(予習・復習)等] |
| Prepare for the lessons based on the lesson plan. In addition, after the lecture, answer the report assignments and review the exercises in the textbook to deepen your understanding. |
| [その他(オフィスアワー等)] |
| [主要授業科目(学部・学科名)] |
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