科目ナンバリング U-LAS61 10009 LE61											
授業科目名 Chemistry, Society and Environment-E2 大会記 Chemistry, Society and Environment-E2 世当者所属 はネルギー科学研究科 准教授 AU Ka Man									Ka Man		
群	統合科学科目群 分野(分類) 環境 使用言語						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	授業形態 講義(対面授業科目)			目)
開講年度・開講期	2024・前期 曜時限 水		2		配当	配当学年		・2回生	性 対象学生		理系向

[授業の概要・目的]

Chemistry and chemical processes are very important in both the natural environment and in human society. It is important to understand how chemistry helps to develop the products and services that we utilise, as well as how chemical products from society impact the environment, and how we can mitigate such impacts.

This class will introduce some of the important chemical processes and products that shape modern society, as well as examining the influence that they have on the environment. It will cover basic, important chemical processes that occur in nature as well.

The course is aimed at those who are not specialists in chemistry, but are interested in chemistry and its application, history and influence.

[到達目標]

Students will understand the importance of chemistry and its role in the modern world. Students will understand the importance of chemistry in relation to societal goals and environmental issues.

[授業計画と内容]

The following topics will be covered (in 1-3 weeks as highlighted).

Chemistry introduction

- 1. The history of chemistry and its influence on society
- 2. The scale of chemical industries and the comparison with global flows

Introduction to the basics of important chemical processes:

- 3. Energy chemistry (2 weeks)
- 4. Water chemistry (2 weeks)
- 5. Petrochemistry
- 6. Pharmaceuticals / health chemistry
- 7. Mineral chemistry

Environmental issues and chemistry

- 8. Global warming impacts
- 9. Local chemical pollution
- 10. Chemical solutions to environmental problems (2 weeks)
- 11. Summary and capstone class

One class is held per week.

Chemistry , Society and Environment-E2(2)
The course overall consists of 14 classes and one feedback session.
[履修要件]
特になし
[成績評価の方法・観点]
Participation and small exercises (50%)
Final presentation (10%)
Final exam or assignment (40%)
[教科書]
使用しない
[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]
Small exercises out of class may be expected. Class slides will be provided for pre-reading.
[その他(オフィスアワー等)]