Course number	U-LAS13 20004 LE60		
Course title (and course title in English)	Introduction to Inorganic Chemistry A-E2 Introduction to Inorganic Chemistry A-E2	Instructor's name, job title, and department of affiliation	Graduate School of Engineering Associate Professor,ZHU, Tong

Group	Natural Sciences	Field(Classification)	Chemistry(Development)

Language of instruction	English	Old group	Group B	Number of credits	2

Number of weekly time blocks	1	Class style	Lecture (Face-to-face course)	Year/semesters	2025・First semester

Days and periods	Tue.3	Target year	Mainly 1st & 2nd year students	Eligible students	For science students

[Overview and purpose of the course]

These lectures will introduce students to the fundamentals of inorganic chemistry. Atoms, molecules and solids surround us and this lecture will aim at providing students with the tools to better understand their structures, energetics and properties. This course is designed for both Japanese and International students.

[Course objectives]

(1) To understand the basic structure of atoms as a function of their position in the periodic table. (2)To be able to draw simple molecular structures and orbital diagrams to understand their properties and reactivity.
(3) To be able to visualize and comprehend the basic crystal structures of solids and their related stability and properties.

[Course schedule and contents)]

The course will cover the following topics, and each of them is read in 1 or 2 weeks

(1) The structure of hydrogen
(2) The structure of many-electron atoms
(3) Lewis structures
(4) Valence bond theory
(5) Molecular orbital theory
(6) Bond properties
(7) The structure of solids and packing of spheres
(8) The structure of metals, alloys and intermetallic compounds
(9) Ionic bonding and ionic solids
(10) Electronic structures and properties of inorganic solids

Total 14 classes and 1 Feedback

[Course requirements]

None

Continue to Introduction to Inorganic Chemistry A-E2(2)↓↓↓

Introduction to Inorganic Chemistry A-E2(2)

[Evaluation methods and policy]

Evaluation will be based on attendance and participation (10%), reports (90%).

[Textbooks]

Weller, Overton, Rourke, Armstrong 『Inorganic Chemistry』 （Oxford University Press）ISBN:978-0-19-964182-6

[References, etc.]

（References, etc.）

Introduced during class
Will be announced during the lecture

（Related URL）

(Will be announced during the lecture)

[Study outside of class (preparation and review)]

Students are required to do their homeworks and when trouble is encountered during homework, please consult the various recommended textbooks or please ask me.

[Other information (office hours, etc.)]

Office hour: Anytime by email and appointments should be made via email.