

Expected learning outcomes

Indicator	Upon the completion of the course, student able to	Expected learning outcomes of program
Knowledge		
CELO1	Analyze the chemical processes in environment	ELO1: Apply the knowledge of natural sciences, politics, society, humanities, law, economics and understand contemporary issues in the field of environmental sciences ELO2: Analyze environmental qualities including design and implement the environmental tests, data collection and interpretation.
CELO2	Explain the changes of chemical substances in some specific waste sources, effected by Physical and Biological factor	ELO1: Apply the knowledge of natural sciences, politics, society, humanities, law, economics and understand contemporary issues in the field of environmental sciences ELO2: Analyze environmental qualities including design and implement the environmental tests, data collection and interpretation.
CELO3	Analysis of some basic chemical indicators in laboratory	ELO2: Analyze environmental qualities including design and implement the environmental tests, data collection and interpretation. ELO3: Evaluate the impact of resource exploitation and emissions on environmental quality.
CELO4	Assessment of environmental pollution accordance with the requirements of national and international standards and regulations.	ELO2: Analyze environmental qualities including design and implement the environmental tests, data collection and interpretation. ELO3: Evaluate the impact of resource exploitation and emissions on environmental quality.
Skills		
CELO5	Proficiency in teamwork skills	ELO 6: Apply systematic thinking, critical thinking and creative thinking in solving environmental problems and related fields. ELO7: Work in group and Lead the multi-functional team
CELO6	Proficient in analytical techniques and assessment to find the cause of problems that uses chemical knowledge in practice.	ELO 6: Apply systematic thinking, critical thinking and creative thinking in solving environmental problems and related fields
Attitude		
CELO7	Active in learning and research	ELO11: Determine a clear professional orientation, career passion and a sense of lifelong learning.

Brief descriptions

Chapter 1. Atmospheric chemistry

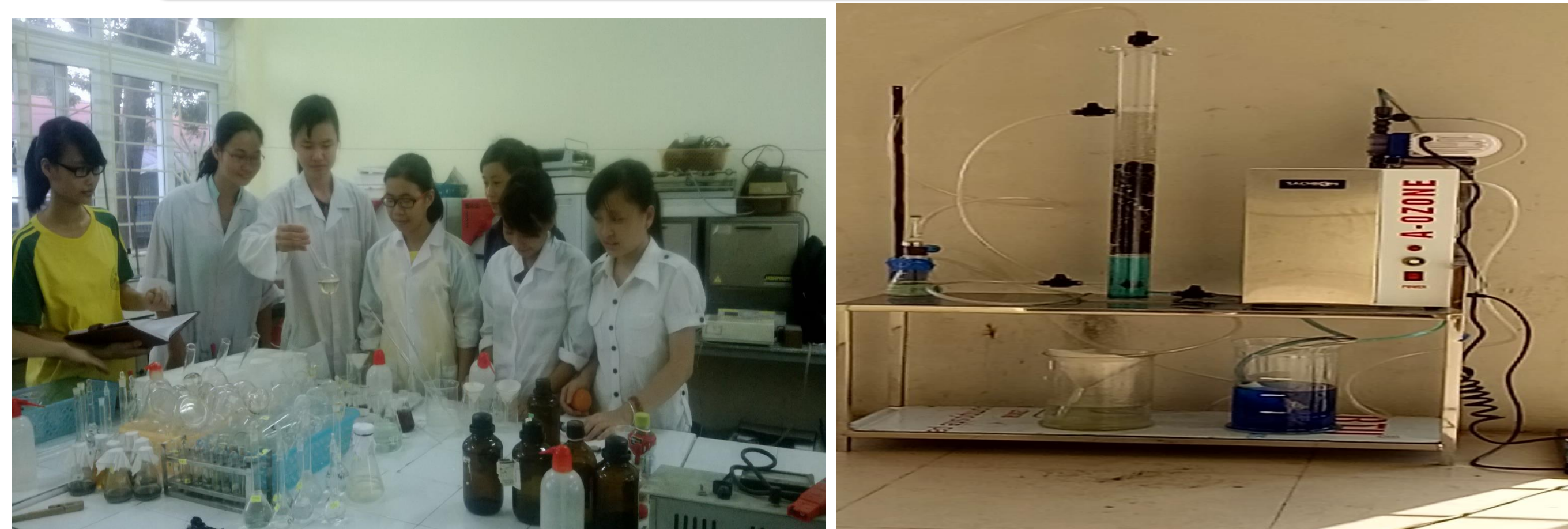
Chapter 2. Aquatic chemistry

Chapter 3. Geochemistry

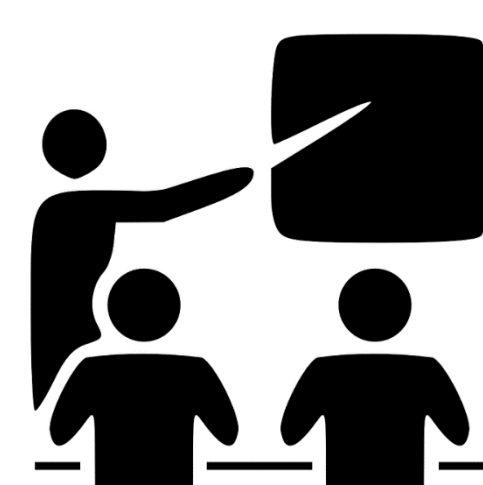
Chapter 4. Circulation of some elements in nature

Chapter 5. Toxicology

03 Practice in Lab



Learning methods



- Self-study: reading documents, doing exercises, studying materials
- Join in the discussion, exchange idea in class
- Prepare for the practice: Calculate the chemicals, equipment needed

Assessment methods



- Grading scale: 10
- Evaluation: 50% Process, 50% final exam

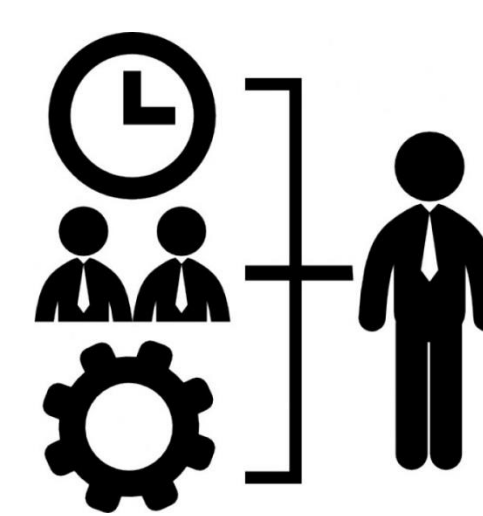
Attendance 10%	Practice 10%	Mid-term 30%	Final examination : 50%
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Student tasks



- Attendance: Students must attend at least 75% of the class and 100% practice.
- Prepare the lesson according to the teacher instructions
- Attend all mid-term and final exams

Key academic staffs



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