

## COURSE SYLABUS

## **GENERAL CHEMISTRY**









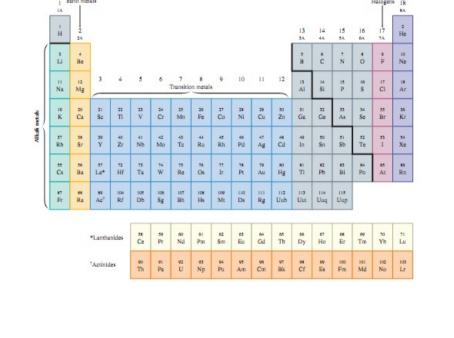
# **Expected Learning Outcomes**

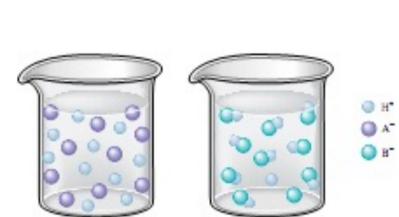


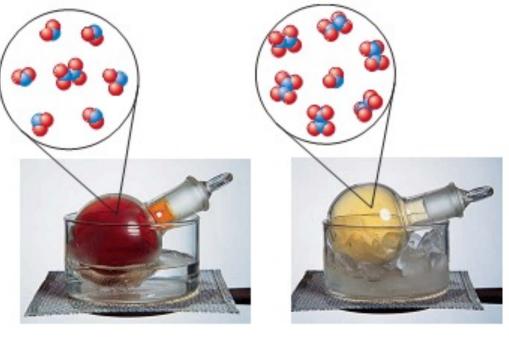
Indicator	Upon completion of the course, Student able to	Expected learning outcomes of program
Knowledge		
CELO1	Illustrates basic concepts and laws in chemistry	ELO1: Apply the knowledge of natural science, politics, social science and humanities, law, economics, and awareness of contemporary issues in the field of environmental sciences.
CELO2	Identify basic concepts and laws needed to solve substance-building exercises and calculate the amount of substances and energy in chemistry	ELO2: Analyze environmental quality including designing and conducting experiments, collecting data, and interpreting results.
CELO3	Identify the relationship between chemical phenomena on agriculture and the environment.	ELO3: Evaluate the impact of natural resource exploitation and emissions on environmental quality.
Skills		
CELO4	Perform basic experiments in general chemistry.	ELO 6: Apply systematic, critical, and creative thinking in solving problems in the environmental and related fields.
Attitude		
CELO5	Be active in learning	ELO11: Define a clear career orientation; possess a passion for one's career and a sense of lifelong learning.

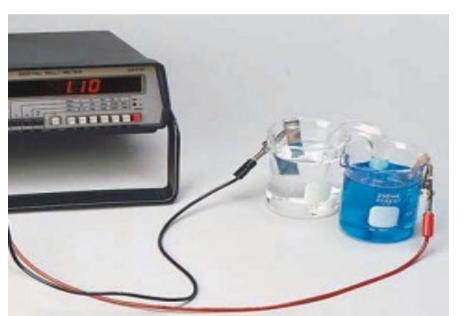
#### **Brief descriptions**

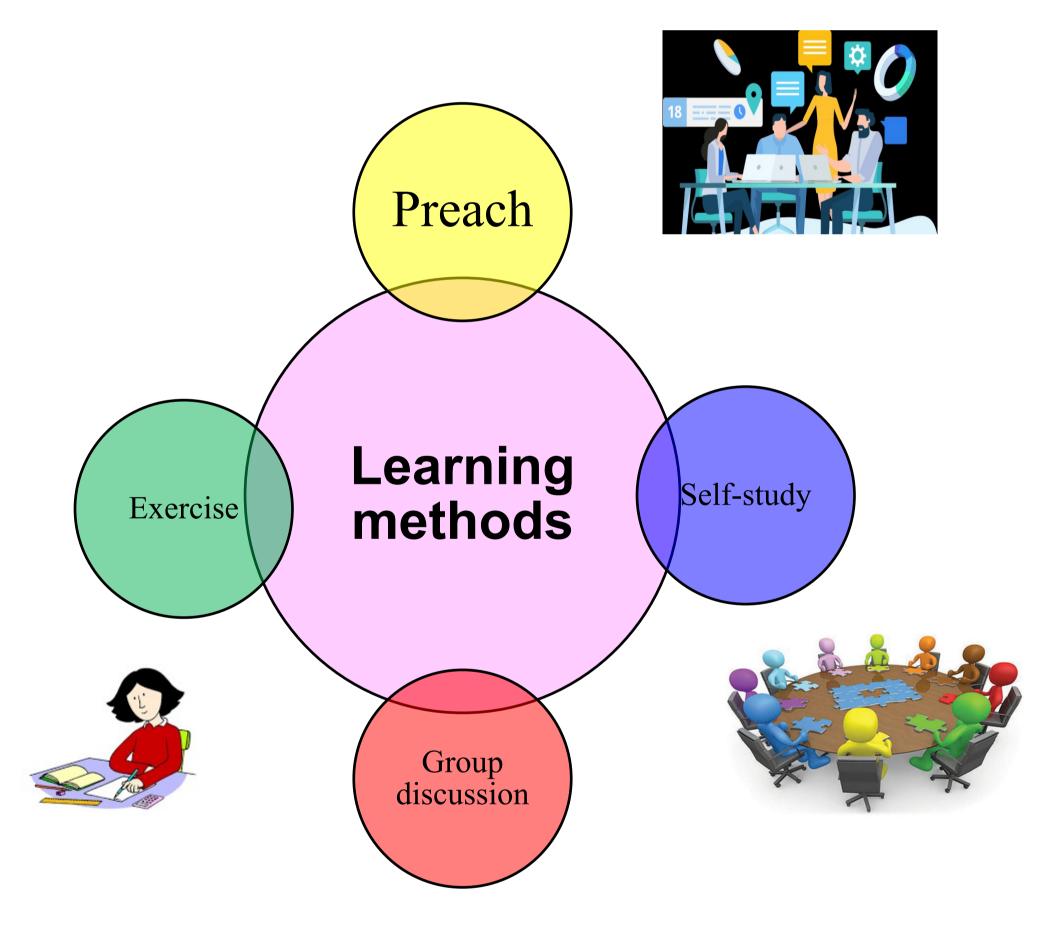
- Some basic concepts and laws
- Atom and substance tructure
- Thermodynamics
- Reaction rate and chemical equilibrium
- Solution
- Electrochemical
- Coloidal chemistry3 laboratory











### **Key academic staffs**

#### Student tasks:

- All students must attend a minimum of 75% of theory hours and 100% of discussion, exercises and practice hours in the unit.
- Preparing for the lesson: Read the syllabus of the chapter before going to class.
- Exercises: Complete the exercises corresponding to the learned part
- Presentations and Discussions: Participate fully and actively in discussions.
- All students must take the midterm exam
- All students must take the final exam.

#### **Assessment methods**

- 1. Grading scale: 10
- 2. Evaluation:

Attendence and discussion: 10 %

Exercise: 10%

Laboratory: final exam condition

Midterm test: 30% Final test: 50%

Le Thi Thu Huong

Email: lethithuhuong@vnua.edu.vn

Ngo Thi Thuong
Email: ngothuong@vnua.edu.vn

Nguyen Ngoc Kien
Email:nnkien@vnua.edu.vn

Tran Thanh Hai Email: tranthanhhai@vnua.edu.vn

Han Thi Phuong Nga Email: htpnga@vnua.edu.vn

Tel: 024.62617636/38768221 Fax: 024.38760476 . Web: <a href="http://tnmt.vnua.edu.vn">http://tnmt.vnua.edu.vn</a> . Email: <a href="mailto:tnmt@vnua.edu.vn">tnmt@vnua.edu.vn</a>