Fundamentals of Chemistry I				
Registration Code	0061311	Credits	2.0	
Course Category	Sciences Basic			
Term (Semester) / Day / Period	G-I (1st year, Fall Semester) / Mon. / 3 (13:00~14:30)			
Instructor	PHUNG Quan Manh			
Target Schools (Programs)	$Sc(P \cdot C \cdot B) \cdot En(C \cdot Au) \cdot Ag(B)$			

• Goals and Objectives of the Course

The purpose of this course is to grasp what chemistry is all about and to learn important principles and facts in chemistry. The course begins with atomic structure, proceeds next to bonding and molecules, and further to bulk physical properties of substances.

• Course Prerequisites: None

• Course Contents/Plan

- 1 Chemical Tools: Experimentation and Measurement (Ch. 1)
- 2 Atoms, Molecules and Ions (Ch. 2)
- 3 Mass Relationships in Chemical Reactions (Ch. 3)
- 4 Reactions in Aqueous Solutions (Ch. 4)
- 5 Discussion & Online Quiz (Chs. 1 4)
- 6 Periodicity and the Electronic Structure of Atoms (Ch. 5)
- 7 Ionic Compounds: Periodic Trends and Bonding Theory (Ch. 6)
- 8 Covalent Bonds and Molecular Structure (Chs. 7–8)
- 9 Thermochemistry: Chemical Energy (Ch. 9)

10 Discussion & Online Quiz (Chs. 5 – 9)

- 11 Gases: Their Properties and Behavior (Ch. 10)
- 12 Liquids, Solids, and Phase Changes (Chs. 11–12)
- 13 Solutions and Their Properties (Ch. 13)
- 14 Pre-final Review
- 15 FINAL EXAM (Chs. 1 13)

• Course Evaluation Methods

Two online Quizzes: 50 points each. Final Exam (comprehensive): 200. Homework: 50. TOTAL: 350. Grade "S": 100-90% (315 or more points), "A": 89-80% (314 - 280 pts), "B": 79-70% (279 - 245 pts), "C": 69-60% (244 - 210 pts), "F": 59-0% (fewer than 210 pts).

-Course Withdrawal

Yes. The last day to withdraw without academic penalty is the last class day in November.

-Criteria for "Absent" & "Fail" Grades

The "Absent" grade is reserved for students that withdraw by last class day in November. After that day, a letter grade will be awarded based on grades earned from all assignments during the semester.

Notice for Students

It is essential to sit in the quizzes and final exam during the scheduled class time. **There will be NO make-up exam.** In the event of a missed exam due to a serious illness, accident or family emergency, compelling **written** documentation of the reason for the absence will be required. If the reason is accepted, the final grade will be calculated from the appropriately weighted average from the rest of the exams. If the reason will be deemed insufficient, the absence will be unexcused, and zero points will be awarded for the missed exam.

Attendance is necessary for successful completion of this course. No points will be awarded for attending lectures, but attendance may be taken.

Homework is crucial for mastering new material and developing skills in applying concepts. Weekly homework will be either on paper or electronic. Homework is due at the beginning of class on the due date. A general guideline says an average of 2 to 3 hours of study time per week is necessary for each 1 credit hour.

Quizzes and the final Exam focus on problem solving, and exam questions will be similar to the homework problems. Quizzes and Exam grades will be posted in the Gradebook on the Course website before next class period.

Cell phones must be turned off during lecture.

Textbook	Chemistry (J. K. Robinson, J. McMurry, and R.C. Fay), 8th Ed. (Global Edition E-Text, bundled with Mastering Chemistry) Pearson, 2020		
Reference Book	None		
Reference website			
Message			