



SYLLABUS OF SPECIFICATIONS

Chem 115 Principles of Chemistry
1st Semester AY 2022-2023

Examination: ☒ Midterm ☐ Final ☐ Long Exam

Date of Examination: November 7, 2022

Content	No. of Meetings	Course Outcome/Learning Outcome (CO/LO)	%	Taxonomy of Objectives						Total Items
				Remembering	Understanding	Applying	Analyzing	Evaluating	Creating	
				30%	28%	24%	18%			
The Atom, Subatomic Particles, and the Atomic Structure	2	CO1: Describe the basic concepts of atoms, its theories and quantum theory; provide a basic quantum mechanical description of the hydrogen atom, determine electron configurations of atoms, and use periodic trends to make predictions about atomic and chemical properties	12%	3	2	1				6
Nuclear Stability and Radioactivity	1		18%	2	2	2	3			9
Electromagnetic Radiation and Wave-Particle Duality	2		20%	3	2	2	3			10
The Bohr Model of the Atom	1		14%	3	2	2				7
The Quantum Mechanical Model of the Atom	2		16%	2	3	3				8
The Quantum Numbers and Electron Configuration	1		20%	2	3	2	3			10
Total	9		100 %	15	14	12	9			50
Item Arrangement				I. 1-10 II. 11-15 III. 3-8	I. 11-15 II. 1-5 III. 1,2 IV. 3,4	II. 6-10 III. 9-15 IV. 1,2	III. 1-8 IV. 5			

Type/s of Test:

Test I Multiple Choice
Test II Matching Type

Test III Modified True or False
Test IV Essay

Vision:
Mission:

A globally competitive university for science, technology, and environmental conservation.
Development of a highly competitive human resource, cutting-edge scientific knowledge and innovative technologies for sustainable communities and environment.