

The map below identifies in which courses students will gain proficiency in the specified DLGs and SLOs.

Legend: I = Introduced, D = Developed, M = Mastered, R = Reinforced.

B.S. Chemistry Degrees	Degree Learning Goals	First Year		Second Year				Third Year					Fourth Year		
		Fall	Spring	Fall	Spring	Spring	Spring	Fall	Fall	Fall	Spring	Spring	Fall	Fall	Spring
	Student Learning Outcome	200	201	-	232	232L	251	410A	432	432L	410B	417	457	550	-
DLG 1: Establish a Foundation and Depth of Knowledge Pertaining to Fundamental Chemical Principles	SLO 1.1: Describe, recognize, draw, and name, important classes of atoms, functional groups, and molecules. (Nomenclature & Structure)	D	D		D	D	D	-	D	M	-	-	R	-	
	SLO 1.2 Describe the atomic and subatomic structure and properties of matter. (Atomic Structure)	D	-		R	R	-	D	M	R	-	-	R	R	
	SLO 1.3 Describe the origin and properties of chemical bonding and the influence on structure and properties of the molecules. (Molecular structure)	D	D		D	D	-	M	D	D	R	-	R	M	
	SLO 1.4 Describe how the macromolecular properties of matter are determined by the molecular characteristics. (molecules to macro)	D	-		M	-	-	D	R	-	M	-	R	-	
	SLO 1.5 Predict the outcome of, and describe the mechanisms for, various chemical reactions. (Reactions)	D	I		D	R	D	-	M	M	M	-	R	R	
DLG 2: Demonstrate Competency in Problem Solving and Quantitative Reasoning	SLO 2.1: Demonstrate the ability to quantify and interpret the reliability of measured physical and chemical properties of molecules and mixtures employing dimensional and appropriate statistical analysis. (Calculations)	D	D		D	M	M	R	R	R	-	M	M	M	
	SLO 2.2: Demonstrate knowledge of the important techniques employed to synthesize, separate, purify, identify, and quantitate chemical compounds. (Exp Techniques)	-	I		D	I	D	D	D	I	-	R	M	R	
	SLO 2.3 Develop knowledge of how to apply the scientific method in exploring chemical phenomena (scientific method)	I	-		-	-	-	-	R	R	-	R	R	R	
DLG 3: Develop Skills Used in Professional Chemistry Settings	SLO 3.1: Develop proficiency with modern instrumentation and techniques used in chemical laboratories (Lab Technique)	I	D		-	-	D	D	-	D	-	M	M	-	
	SLO 3.2: Demonstrate the ability to read and comprehend a Standard Operating Procedure (SOP)	I	D		-	-	D	D	-	D	-	M	R	-	

