

5. Program learning Outcomes*	
Knowledge and Understanding	
	<i>By the end of the program, student will be able to:</i>
K1	Demonstrate the main concepts and chemical laws in all studied chemistry branches
K2	Outline the scientific principles in the subfields of chemistry (analytical, inorganic, organic and physical), and apply these principles to interact with industrial fields
K3	Discuss the major types of chemical reactions, their characteristics, and mechanisms as well as their kinetics
K4	Explain, integrate and apply the relevant knowledge and theories in basic sciences and other disciplines and professional fields
Skills	
	<i>By the end of the program, student will be able to:</i>
S1	Classify the chemical compounds and identify their properties
S2	Compare the results to predict and rationalize properties, mechanisms and patterns of reactivity
S3	Formulate processes, relationships and techniques related to different chemistry branches.
S4	Summarize information from library, online and literature resources that will support the solving of chemical and research problems.
S5	Evaluate, develop and conduct Chemistry experiments or test hypotheses, analyze and interpret data and use scientific judgment to address conclusions and make a criticism.
Values	
	<i>By the end of the program, student will be able to:</i>
V1	Conduct laboratory experiments safely, evaluate the potential impact of chemistry that may have on society, health and the environment
V2	Enhance students self and long life-learning using information technology, risk management, organization of time, and reviewing of a quality control processes
V3	Collaborate effectively as part of a team, recognizing and respecting the viewpoints of others and developing understanding and awareness of leadership styles and their impacts upon projects.