Department of Chemistry and Biochemistry Program Assessment Plan

SLO	When to Assess?	Direct and Indirect Evidence to Collect?	Who Collects Evidence?	How Evidence Assessed?	How Closing Loop Decisions Made?
C1 Atoms	SP2017	Direct	Assessment Committee	Online Concept Surveys *Chemistry Concept Inventory (CCI)* *Biochemistry Diagnostic Concept Inventory (BCI)*	AC Recs Department Faculty Vote
C2 Reps	SP2020	Indirect/Direct	Assessment Committee	Embedded & Online Survey Model Building	AC Recs Department Faculty Vote
C3 Ethics	SP2019	Indirect/Direct	Assessment Committee	Online Survey & Embedded Assignment Lab Safety and Chemistry Ethics	AC Recs Department Faculty Vote
C4 Instrm	SP2021	Indirect/Direct	Assessment Committee	Embedded & Online Survey	AC Recs Department Faculty Vote
C5 EqNEq	SP2022	Direct	Assessment Committee	Online Concept Survey	AC Recs Department Faculty Vote
SP1 Hyp	SP2015	Direct	Assessment Committee	Online Survey *Test of Integrated Process Skills (TIPS)*	AC Recs Department Faculty Vote
SP2 SciKnl	SP2018	Indirect/Direct	Assessment Committee	Online Survey *College Chemistry Self- Efficacy Survey (CCSS)*	AC Recs Department Faculty Vote
SP3 Comm	SP2016	Direct	Assessment Committee	Embedded Scientific Abstract Ethics Evaluation	AC Recs Department Faculty Vote

AC Recs – Assessment Committee makes recommendations to department

For most updated information, please contact the Department.

Chemistry and Biochemistry Department Common Undergraduate Student Learning Outcomes

University-Wide Student Learning Outcomes	C1 Atoms	C2 Reps	C3 Ethics	C4 Instrm	C5 EqNeq	S1 Hyp	S2 SciKnl	S3 Comm
ULO1: Demonstrate intellectual literacy through the acquisition of knowledge and development of competence in disciplinary perspectives and interdisciplinary points of view.	Recognize that all matter is composed of atoms whose inherent periodic properties determine their interactions and combinations into compounds with specific molecular structure, chemical function and physical properties.	Explain the various ways that chemists represent and test chemical knowledge in models, theories, mathematical relationships and symbolic notations.		Demonstrate literacy in concepts underlying fundamental analytical instrumentation and instrumentation techniques used in chemistry and biochemistry.	Discriminate between equilibrium and non-equilibrium systems using fundamental thermodynamic laws and kinetics.			
ULO2: Think critically, using analytical qualitative reasoning, to apply previously-learned concepts to new situations, complex challenges and everyday problems.							Analyze, interpret, and retrieve data and appropriate literature, to develop critical thinking and problem solving skills.	

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University-Wide Student Learning Outcomes	C1 Atoms	C2 Reps	C3 Ethics	C4 Instrm	C5 EqNeq	S1 Hyp	S2 SciKnl	S3 Comm
ULO3: Communicate clearly, effectively, and persuasively, both orally and in writing.						Demonstrate the ability to generate and collect data and information through designing and safely implementing hypothesis-driven experiments using contemporary methods and techniques.		Work effectively, independently and cooperatively to communicate data, concepts, skills and processes to experts and non-experts in the field.
ULO4: Work effectively as a team member or leader to achieve a broad variety of goals.								
ULO5: Evaluate the significance of how differing perspectives and trends affect their communities.			Illustrate the principles of safe practices and ethical use of scientific knowledge, materials and procedures, and explain their impact on a diverse society.					

University-Wide Student Learning Outcomes	C1 Atoms	C2 Reps	C3 Ethics	C4 Instrm	C5 EqNeq	S1 Hyp	S2 SciKnl	S3 Comm
ULO6: Recognize their roles in an interdependent global community.			Illustrate the principles of safe practices and ethical use of scientific knowledge, materials and procedures, and explain their impact on a diverse society.					