CHEMISTRY, B.S.

Program Learning Outcomes

Students who complete the program in Chemistry will be able to:

1. Apply key concepts and principles in analytical chemistry, biochemistry, inorganic chemistry, organic chemistry, and physical chemistry.
2. Use standard instrumentation and laboratory equipment to conduct scientific experiments and perform chemical characterizations and analyses.
3. Participate in the life of the Chemistry Department by involvement in one or more of the following areas: research, chemistry club, and/or various positions of responsibility serving as graders, tutors, stockroom workers and/or teaching assistants.
4. Be prepared for post-graduate studies or a science-related career.

Code	Title	Units
Lower-Division Requirements		
CHE 1052 and CHE 1052L	General Chemistry I (FE) and General Chemistry I Lab (FE)	5
CHE 1053 and CHE 1053L	General Chemistry II and General Chemistry II Lab	4
CHE 2013	Analytical Chemistry	3
CHE 2094 and CHE 2094L	Organic Chemistry I and Organic Chemistry I Lab	4
CHE 2096 and CHE 2096L	Organic Chemistry II and Organic Chemistry II Lab	4
MTH 1064 and MTH 1064L	Calculus I (FE) and Calculus I Lab (FE)	4
MTH 1074 and MTH 1074L	Calculus II and Calculus II Lab	4
PHY 2044 and PHY 2044L	University Physics I (FE) and University Physics I Lab (FE)	4
PHY 2054 and PHY 2054L	University Physics II and University Physics II Lab	4
Upper-Division Requirements		
CHE 3025 and CHE 3025L	Physical Chemistry I and Physical Chemistry I Lab	4
CHE 3026 and CHE 3027	Physical Chemistry II and Physical Chemistry II Laboratory	4
CHE 3051	Organic Structure Elucidation	2
CHE 3070	Instrumental Analysis	2
CHE 4050 and CHE 4050L	Advanced Biochemistry and Advanced Biochemistry Lab	4
CHE 4053 and CHE 4054	Advanced Organic Chemistry and Advanced Organic Chemistry Laboratory	3
CHE 4066	Bioinorganic Chemistry	2
CHE 4067 and CHE 4068	Advanced Inorganic Chemistry Laboratory and Advanced Inorganic Chemistry	4
CHE 4095	Chemistry Seminar	1
Biology and Physics 3000-level or higher, Math 2000-level or higher [1,2]		3-4
Total Units		**65-66**

[1] Science and/or Math electives beyond those required for the degree must be approved by the department chair.

[2] Recommended: CHE 4099, MTH 2033, MTH 2074

Notes(s): Accepting Associate Degree for Transfer (ADT) (https://pointloma-public.courseleaf.com/prior-catalogs/2023-2024/tug-catalog/colleges-schools-departments/adt/)