

Chemistry

The Chemistry program, consistent with the mission of the College, offers a rigorous program in both the classroom and the laboratory providing for the curricular needs of the students. The program emphasizes hands-on instrumentation experiences and undergraduate research, enabling participants to successfully prepare for careers as scientists, educators or to enter directly into graduate programs in higher pre-professional learning as well as veterinary or health related studies.

Learning Outcomes: Chemistry

1. Chemistry minors will be able to demonstrate a firm foundation in chemical principles as well as deeper understanding in each of the chemistry subdisciplines: analytical, organic, inorganic and physical.
2. Minors will demonstrate the ability to use modern instruments and classical techniques to conduct and design experiments.
3. Minors will demonstrate the ability to search and use the chemical literature in both printed and electronic forms.
4. Minors will employ the ability to clearly present chemical data and appropriately interpret scientific results in variety of formats.

Minor in Chemistry		25-26 credits
CHE 210	Essential Concepts of Chemistry (General Chemistry I)	3
CHE 210L	General Chemistry Laboratory	1
CHE 215	Introduction to Structural Inorganic Chemistry (General Chemistry II)	3
CHE 215L	Introduction to Structural Inorganic Chemistry Laboratory	1
CHE 220	Introductory Organic Chemistry	3
CHE 220L	Introductory Organic Chemistry Laboratory	2
CHE 350	Organic Chemistry II	3
CHE 350L	Organic Chemistry II Laboratory	2
CHE 315	Analytical Chemistry	4
Plus one additional approved chemistry elective at a 300-400 level		3-4

Independent Study Opportunities in Chemistry

Besides the course described later in this document, the chemistry faculty offers various opportunities for individualized, independent activities for chemistry minors. These include Special Studies in Chemistry, Teaching Practicum in Chemistry, and Guided Independent Study.

1. Special Studies (CHE X90, 1-4 credits each) are courses not regularly taught but which are offered when the unique combination of faculty and student interests suggests that an important learning experience may occur. Examples of such topics are Advances Environmental Monitoring and Interpretation of Spectral Analysis.
2. The Teaching practicum in Chemistry (CHE X98, 1-4 credits) allows students, especially those preparing to be teachers, to gain experience by performing and serving as teaching assistants in certain chemistry courses. The practicum is also an excellent opportunity for students preparing for graduate and professional school admissions tests such as GRE, DAT, and MCAT, to enhance their preparation for the chemistry portions of those tests by working in the tutor / mentor role general and organic chemistry.
3. The Guided Independent Study (CHE X99, 1-4 credits) is for students interested in research and exploring a specialized topic outside the scope of the normal curriculum. The student should approach a member of the chemistry faculty whose research interests or area of specialty match his/hers own interests and inquire about possibilities. If the faculty member judges that the student's preparation and motivation warrant an independent study, the student and the faculty member will develop a research project or appropriate parameters to allow the exploration of a topic. After approval by the chemistry faculty and the department chair, the project becomes an official guided independent study. Upon completion of the project, the student will have acquired such skills as hands on experience with experimental design, data collection and analysis and literature searches.