

Computational Chemistry and Data Science, Academic Certificate

The Department of Chemistry, in collaboration with Computer Science and Mathematics/Statistics, offers an undergraduate-level academic certificate in Computational Chemistry & Data Science. This program is a minimum of 12 semester credit hours (SCH) (6 SCH of required courses and a minimum of 6 SCH of electives) that is open to all majors and professionals who wish to strengthen their preparation for careers in computational chemistry, molecular modelling, biostatistics, and data-driven research. Students must earn a grade of B or better in all certificate courses.

Code	Title	Semester Credit Hours
Required Courses		6
CSEN 2328	Data Structures & Algorithms	3
CHEM 4332	Molecular Modeling	3
Elective Courses		6
CSEN 4367	Data Mining	3
STAT 4301	Biostatistics ¹	3
CHEM 3385	Undergraduate Research (WI) ²	1-3
CHEM 4385	Senior Research (WI) ²	1-3

Some of the above courses may have prerequisites. Please consult with your advisor prior to enrolling.

¹ This course is recognized by major pharmacy, medical, and pre-health programs in the state of Texas as meeting their prerequisite. Completion provides students with a competitive advantage since they do not need to retake these prerequisites for those programs.

² Research must focus on environmental remediation, green synthesis, or sustainability metrics to count toward the academic certificate.