

CH/CHE/CHEM 229Z General Chemistry III Laboratory

For more detailed information, see CCN Reports & Memos on the [Educator Resources—Common Course Numbering](#) webpage.

CCN Course/Course Information

Course Number and Prefix: CH/CHE/CHEM 229Z

Course Title: General Chemistry III Laboratory

Course Credits: 5 for lecture and lab. (Institutions will divide these credits between lecture and lab so that the total credits for both courses equals 5 credits.)

Course Description: Experiments correspond to the topics covered in CH/CHE/CHEM 223Z including the principles of chemical equilibria and their application to chemical analysis using volumetric and electrochemical methods. CH/CHE/CHEM 229Z is the laboratory component; CH/CHE/CHEM 223Z is the lecture course.

Course Learning Outcomes:

Students will be able to

1. Follow standard safety procedures while working with chemicals and equipment in a laboratory setting.
2. Keep an accurate and detailed laboratory record.
3. Measure, calculate, and report data and results using proper units and appropriate measures of uncertainty
4. Analyze experimental results qualitatively and quantitatively with measures of accuracy and precision.
5. Interpret and communicate the results of experiments applying chemical concepts in CH/CHE/CHEM 223Z in a clear and concise manner.
6. Investigate chemical concepts in CH/CHE/CHEM 223Z qualitatively and quantitatively using scientific methods.

Teachout Recommendation:

The committee recommends that the 2025-2026 academic year be designated as a teachout year for students that began the general chemistry series prior to Fall 2025. As the topics in the newly aligned CH/CHE/CHEM 221Z/227Z, 222Z/228Z, 223Z/229Z differ from those taught in the unaligned courses, students could miss topics by switching mid series. Several institutions currently offer delayed “trailer” sections of each course. This proposed teachout would facilitate completion of the sequence by students already on that schedule.

All schools should be allowed to offer the pre-Z CH 222 and CH 223 alongside the CCN aligned courses for the **first** academic year of offering the newly aligned courses. This minimizes the negative impact on students who need to finish the series if they completed CH 221 before Fall 2025. CH 221 (pre-Z) does not need to be included in the teachout plan as students entering the series would begin in CH/CHE/CHEM 221Z and CH/CHE/CHEM 227Z in the Fall of 2025.