

UNIVERSITY OF ALASKA FAIRBANKS
Student Learning Outcomes Assessment Plan
 Chemistry and Biochemistry Undergraduate B.S. Program

MISSION STATEMENT:

The Department of Chemistry and Biochemistry seeks to educate all levels of students in chemical principles, practice, and safety and to attract students to further study in Chemistry and Biochemistry. We educate majors broadly through study of Organic, Inorganic, Physical, Analytical, and Biochemistry in accordance with the guidelines of the American Chemical Society Committee on Professional Training and provide concentrations in Biochemistry and Molecular Biology, Environmental Chemistry, and Forensic Chemistry.

GOAL STATEMENT:

To prepare undergraduate students for careers in Chemistry, Biochemistry, or Chemistry-related occupations or for further study in graduate or professional schools.

Intended Objectives/Outcomes	Assessment Criteria and Procedures	Implementation (what, when, who)
Introductory courses provide basic chemical knowledge for students with other majors and attract the best students to chemistry and biochemistry majors	Where applicable, American Chemical Society (ACS) standardized tests and online surveys will be used to assess overall performance and topical coverage.	Instructors of introductory chemistry courses will meet annually to review and collate data on student performance in these courses. Syllabi and selected texts will be compared to ACS standards.
Graduates attain baccalaureate-level chemistry knowledge, in accordance with ACS guidelines.	We will give a standardized exam (an ACS exam, or the ETS Major Field Test for chemistry or the GRE chemistry subject test) to graduating seniors.	The department will review test results in an annual meeting and discuss how deficiencies can be addressed in the curriculum.
Graduates have problem solving, laboratory, and safety skills and have hands-on experience with modern chemical instrumentation.	B.S. students will conduct undergraduate research in accordance with ACS guidelines.	Faculty will review research posters and reports annually. These reports are used for ACS external re-accreditation (every five years).
Communication/presentation skills are consistent with professional standards.	Students will have experience in oral presentations and written communication in the style of research manuscripts and reports.	Assessments of student performances in writing-intensive laboratory courses (CHEM 324, 413, 434) and oral presentations in the seminar course (CHEM 482) will be compiled and reviewed annually.
Graduates are employed or continue education following graduation.	90% of students will be employed or will continue education in a related field within one year of graduation.	Graduates will be surveyed upon graduation and faculty will be surveyed annually regarding recent graduates. Form: "undergrad exit interview"