

ACS Guidelines for Chemistry in Two-Year College Programs

The following is an excerpt from the *ACS Guidelines for Chemistry in Two-Year College Programs*. American Chemical Society: Washington, DC. 2015.

The complete electronic version of the *ACS Guidelines for Chemistry in Two-Year College Programs* and additional information are available at www.acs.org/2YGuidelines.

Requests for hardcopies or additional information should be directed to

Undergraduate Programs Office
American Chemical Society
1155 Sixteenth Street, N.W.
Washington, DC 20036
Phone: 202-872-6108
Email: 2YColleges@acs.org

2. Institutional Environment

Effective chemistry education requires a substantial institutional commitment to an environment that supports long-term excellence. Existing within the context of the institutional mission, a two-year college chemistry program must support the needs, career goals, and interests of the institution's students.

In order to support viable and sustainable chemistry-based education, the institutional environment must provide and develop the following attributes.

2.1 Institutional accreditation. The institution must be accredited by the regional accrediting body. Such accreditation ensures broad institutional support in areas such as mathematics, related sciences, and the humanities. During institutional reviews, these guidelines should be consulted as part of self-studies and shared with the accrediting bodies.

2.2 Program organization. The administration of the program must reside in an appropriate department that includes full-time faculty members with advanced chemistry degrees. The department must have an adequate budget and significant influence over faculty selection and promotion, curriculum development, and assignment of teaching responsibilities. Departmental input regarding allotment of office, classroom, laboratory, and other spaces must be solicited. If part of a larger unit, the chemistry faculty must have substantive autonomy over the functions relating to the chemistry courses.

2.3 Faculty policies. The institution must support faculty efforts to develop high-quality instructional programs. The institution's policies regarding salaries, teaching loads, promotions, tenure and/or continuing contracts, leave policies (including sabbaticals), and hiring practices must be developed with faculty input, encourage improved faculty morale, and serve to attract and retain high-quality chemistry faculty members. Recognition programs should be in place to foster and reward significant contributions and innovations by faculty, as a group or individually.

2.4 Program budget. Robust chemistry-based education requires continuing and stable financial support. The institution must have the ability and desire to make a sustained commitment to the program at a level that is consistent with the resources of the institution and its educational mission. Adequate support enables a program to provide:

- Qualified faculty with the scientific breadth to offer the courses and educational experiences described in these guidelines
- Nonacademic staff and resources for administrative support services, stockroom operation, and instrument and equipment maintenance

- Physical plant meeting modern safety standards with appropriate chemical storage, waste-handling, and disposal facilities
- Sufficient budgets to cover the costs of teaching a laboratory-based discipline
- Resources for capital equipment acquisition, long-term maintenance, and expendable supplies to ensure that equipment remains useful throughout its lifetime
- Support for maintaining and updating instructional technology
- Modern chemical information resources appropriate for the breadth and depth of courses offered
- Services to support student learning
- Opportunities for professional development for the faculty, including sabbatical leaves
- Funds and support to encourage faculty members to attend professional meetings and promote scholarly growth
- Resources to support faculty-mentored research as appropriate to the institutional mission
- Personnel support to assist with the acquisition and administration of external funding

2.5 Safety culture. A strong safety culture protects faculty, students, and staff; promotes a sense of confidence among employees and students; and allows everyone on campus to focus on their work. Academic administrators, faculty members, and staff have an ethical responsibility to ensure students' safety, to teach students safety skills, and to make sure students acquire the proper knowledge of safety principles.

Organizations in which leaders demonstrate a commitment to overall safety, rather than mere regulatory compliance, have been shown to have the lowest injury rates.¹ A strong safety culture requires the highest level of leadership (i.e., the president or chancellor) to demonstrate an active commitment to safety and establish a policy that addresses safety and assigns responsibilities for its maintenance throughout the institution. Those at the next level of leadership, such as vice presidents or provosts, provide oversight for the implementation of the safety policy and a safety program. Deans, directors, and chairs are assigned responsibilities for implementing

¹ ACS Committee on Chemical Safety. *Creating Safety Cultures in Academic Institutions: A Report of the Safety Culture Task Force of the ACS Committee on Chemical Safety*; American Chemical Society: Washington, DC, 2012.

the safety program in their areas. Faculty and staff are responsible for the safety of their colleagues and students and for ensuring that safety skills are integrated throughout the curriculum.