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

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8. Student Academic Counseling, Career Advising, and Mentoring

Effective academic counseling, career advising, and mentoring foster student success and are an integral part of the institutional environment. Academic counseling provides students with clear pathways for successful and timely completion of their academic goals, through either degree or certificate programs at two-year colleges or transfer to four-year colleges or universities. Career advising provides information about a wide variety of employment opportunities available in chemistry-based careers. Mentoring leads to successful completion of educational and career goals.

Advisers, counselors, and faculty members should help students develop educational goals and guide their professional development via networking opportunities, confidence building, and career planning. A strong collaboration among chemistry faculty, counselors, and advisers at the institution and their contacts at local high schools, receiving institutions, and employers should be fostered and sustained in order to increase students’ successful matriculation, transfer, job placement, and achievement of career goals.
In addition to fostering healthy mentoring relationships between students and faculty, programs should create opportunities for students to build relationships with each other in order to foster the development of a community of learners that gives students the support and sense of belonging necessary to succeed academically. Such opportunities may include study groups, ACS student chapters, or student research.

Advisers, counselors, and faculty members should provide information about combining a basic chemistry education with studies in other disciplines. For example, a major in chemistry with supporting work in biology is good preparation for students planning careers in medicine, dentistry, or pharmacy. In addition, many careers in the chemical industry, government, and other areas are open to graduates who have a solid background in chemistry combined with other disciplines, such as computer science, law, economics, environmental science, library science, history, literature, or philosophy.

8.1 Faculty mentors. Given their regular interaction with students, content knowledge, professional background, and community contacts, faculty members can be particularly effective mentors, especially if they maintain communication with employers and four-year institutions. Faculty members should encourage students to consider the career options available within chemistry and support efforts to engage students from underrepresented minorities.

Faculty should be intentional about creating the opportunities for mentoring relationships to occur. While mentorship can take many forms, faculty members engaging students in research are well-situated to provide exceptional mentoring opportunities, as well as to prepare students for successful academic transfers and transitions into the workplace; such research can be an enriching experience for faculty members as well. Faculty members can also guide students toward industrial or government mentors and encourage participation in internships or cooperative education experiences.

Two-year college administration should foster an environment that supports faculty in their mentorship efforts. Faculty members serving in formal mentoring programs should be compensated or given reassigned time.
8.2 Counselors and advisers. Academic counselors should be discipline-specific and provide current information with respect to the most efficient route for completing a certificate or associate’s degree, or for transferring to a four-year program. Effective counseling includes discussion of:

- Course prerequisites and skills needed for program completion
- Transfer to higher education or entry into the workforce, as appropriate
- Completion of all terms of required sequential courses (such as the general chemistry sequence and the organic chemistry sequence, if appropriate)
- Mathematics and other science sequences

Career advisers provide guidance for a student’s development, networking, confidence building, and career planning; effective advisers are knowledgeable about current and future chemistry-based employment opportunities. Both counselors and advisers should encourage students with strong interests and abilities in chemistry to continue their educations in the chemical sciences.

Two-year colleges should use discipline-specific counselors and advisers to promote familiarity with chemistry and chemistry-related programs and to facilitate articulation with four-year college programs and industry. Both advisers and counselors should communicate with two- and four-year college faculty and community employers to assist students in developing educational plans within the curriculum of the institution that will lead to successful academic transfer or to employment.

Counseling and advising may be the responsibility of college personnel or of faculty as part of their job descriptions. Faculty members serving as advisers or counselors should be compensated or given reassigned time.