

SAMPLE ACADEMIC PROGRAMS FOR CHEMISTRY MAJORS

Chemistry has been aptly called the "central science" because so many other scientific and technological activities depend directly on chemistry or interact strongly with it. The UCI General Catalog contains a group of sample academic programs (Chemistry, Chemistry-Biological Sciences, Concentration in Chemistry Education, and Concentration in Biochemistry) intended to illustrate for Chemistry majors how they can plan their academic careers to build effective bridges to the many areas in which the major can be applied. The upper division Chemistry Elective component of the Chemistry BS degree requirements at UCI has been structured specifically to encourage students to explore and strengthen these connections.

In addition to the initial very flexible sample program for students with primary interests in Chemistry itself, sample programs for Chemistry majors wishing to emphasize chemical physics, computational or theoretical chemistry, chemical synthesis and reactivity, or materials or polymer science in their undergraduate programs are also available. All sample programs can be viewed on the Chemistry Department website: <http://www.chem.uci.edu>.

These sample programs should be viewed only as **suggestions** for organizing a student's plan of study. They do provide, however, a sound basis for the advanced planning that is essential to making the best use of your educational opportunities at UCI.

NOTE: The basic requirements in these sample programs apply to incoming freshmen. Transfer students should meet with the Physical Sciences Academic Advisors in Rowland Hall 134 to determine what requirements apply to their status.

In order to take advantage of the flexibility and opportunity for exploration that these sample programs illustrate in the junior and senior years, it is essential to complete the fundamental prerequisite courses in Chemistry 1A-B-M3C or H2A-B-C, M2LA-LB and M3LC or H2LA-LB-LC, 51A-B-C, M52LA-LB-LC, Chem 5, Physics 7C-D-E and 7LC-LD (or 7D-E, 7LD), and Mathematics 2A-B-D on the suggested schedule during the first two years. For this reason all of the sample programs are very similar in the freshman and sophomore years.

The junior year program for all Chemistry majors should include Physical Chemistry (131A-B-C) and Inorganic Chemistry (107, 107L). In other respects the sample programs differ from one another in the junior year and, especially, in the senior year as courses of specific interest to the particular programs are suggested.

All Chemistry majors are strongly encouraged to complete a program that will merit award of a certificate by the American Chemical Society (ACS). Coursework that must be included for certification is specified at the bottom of each sample program. An ACS Certified BS degree ensures sound preparation for graduate study in Chemistry and for employment as a chemist at the BS level. Chemistry majors are also encouraged to consider participating in Undergraduate Research (Chemistry 180). Research can offer an exciting introduction to the chemical profession beyond college and often has a strong influence on a student's future professional decisions. A handout describing the procedures for enrolling in Chemistry 180 and the Department's expectations of those who are enrolled is available on the Undergraduate section of the Chemistry Department's website: <http://www.chem.uci.edu/undergrad>.

If you would like more information and assistance in determining the specific directions in which your interests in chemistry might take you, please raise your questions with the Chemistry faculty. You will always be best advised to plan your program of study with advice and suggestions from professionals in the field. Students who have a potential interest in teaching chemistry at the high school or junior college level should discuss these interests with Professor Ramesh Arasasingham and should make contact with the UCI Department of Education before the end of their junior year.

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