

## D.A. in Chemistry Description

The department offers the D.A. degree in chemistry to persons whose goal is a career of teaching at two-year or four-year colleges. The program prepares students to be broadly competent in the field of chemistry and provides them with skill in effective classroom and laboratory teaching. This chemistry degree is an alternative to doctoral degrees in science education.

### Minimum Total Credit Hours: 49 Course Requirements

A minimum of 49 semester hours of graduate credit approved by the student's advisory committee are required: 12 hours of core courses chosen from Chem 601, 512, 527, 531, and 671; 6 additional hours of fundamental courses chosen from Chem 519, 532, 544, and 563; 3 hours of Chem 600; 3 hours of Chem 545; 3 hours of seminar; 6 hours of related science (from two sciences); 6 hours of education courses emphasizing curriculum and course development; 4 hours of instructional internship (Chem 717); and 6 hours of doctoral thesis (Chem 796). Transfer credit will be accepted where appropriate. Specific requirements in excess of the minimum requirements stated above may be imposed by the student's adviser and/or advisory committee.

### Other Academic Requirements

**Comprehensive Examination:** The student must successfully complete a comprehensive examination in general chemistry, containing both oral and written parts, before admission to candidacy.

**Doctoral Thesis:** The doctoral thesis may be experimental in nature or an analysis of literature data; it may be in the area of chemical education, environmental chemistry, consumer products, materials science, research conducted by the student, or any topic approved by the student's advisory committee. The doctoral thesis must give rise to at least one manuscript submitted for publication to an American Chemical Society journal such as the *Journal of Chemical Education* or a comparable journal.

**Final Oral Examination:** Satisfactory performance on an oral examination, as judged by the student's advisory committee, completes the competency requirements for the graduate degree. This examination includes, but is not limited to, a defense of the student's doctoral thesis.

