CHEMISTRY (DA)

Description

The department offers the D.A. degree in chemistry to individuals 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 skills in effective classroom and laboratory teaching. This chemistry degree is an alternative to doctoral degrees in science education.

Minimum Total Credit Hours: 48

Course Requirements

A minimum of 48 semester hours of graduate credit approved by the student's advisory committee is required:

Code	Title	Hours
Core Courses		
Select 12 hours of the following:		12
CHEM 5120	Advanced Instrumental Analysis	
CHEM 5270	Adv. Organic Chem., Structure Mechanism	
CHEM 5310	Advanced Physical Chem., Quantum Chem.	
CHEM 7010	Advanced Inorganic Chemistry I	
CHEM 7710	Biochemistry I	
Fundamental Courses		
Select 6 hours of the following:		6
CHEM 5190	Molecular Biochemistry II	
CHEM 5320	Chemical Thermodynamics	
CHEM 5440	Chemical Applications of Group Theory	
CHEM 5150	Applied Spectroscopy	
Additional Courses		
CHEM 7000	Introduction to Graduate Research	3
CHEM 5450	Chemical Literature	3
Seminar		
Complete 3 hours of seminar		3
Related Science		
Complete 6 hours of related science (from two sciences)		6
Education Courses		
Complete 6 hours of education courses emphasizing curriculum and course development		6
Instructional Internship		
CHEM 7173	Internship Seminar in College Chemistry	3
Doctoral Thesis		
CHEM 7997A	Doctoral Thesis	1-6
Total Hours		**43-48**

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.