CHEMISTRY: CHEMISTRY EDUCATION (PH.D.)

Description

The Ph.D. (Option in Chemistry Education) is designed for students who plan a career at the interface of Science and Education (e.g. discipline-based education research, educational program assessment, STEM curricular design, chemistry teaching, etc.). The rigorous program involves coursework in Chemistry, Psychology and Education and original research in Chemistry Education, leading to the submission of a dissertation. Students with a research-based MS (or equivalent) will be admitted directly to the program. Students with a BS (or equivalent) will first obtain an MS degree, carrying out original laboratory-based research with a faculty mentor, and submitting a thesis. The program has a focus on developing strong writing and oral communication skills. Financial support is typically available through a teaching assistantship.

Requirements

Ph.D. Option in Chemistry Education

• Demonstration of a broad understanding of undergraduate chemistry by passing a series of basic examinations or satisfactory performance in approved courses.
• Demonstration of chemistry laboratory research proficiency by completing a thesis-based M.S. (or equivalent) either at UNH or another university.
• Satisfactory performance in a series of courses in science education, cognition, and qualitative/quantitative research methods.
• Attendance at Department seminars and research Lunch Talks.
• Satisfactory presentation of a Research Progress Report in the second year of residence
• Present a department seminar on a topic unrelated to dissertation research in the third year of residence.
• Preparation and oral defense of an original research prospectus in the third year of residence. Successful completion of the research proposal defense enables the student to advance to candidacy.
• Preparation, public presentation, and oral defense of a written dissertation.
• Please contact the department for additional information on this option.

THESIS Mentor and Committee

Students select a thesis mentor during the first semester in the program after interviewing at least three faculty members. During each semester thereafter, students conduct independent research under the supervision of this faculty member. In the second year of residence and before the Research Progress Report a committee is selected. This committee evaluates the student’s Research Progress Report, the Research Proposal Defense and the Dissertation Defense.