Graduate Program in Chemistry  
Ph.D. Degree Requirements  
Revised July 22, 2005  
Approved by Graduate Council on November 28, 2005

Requirements for the Ph.D. Degree in Chemistry

A. Teaching Requirements

Each candidate for the Ph.D. degree must serve the equivalent of three academic quarters at one-fourth time as a teaching assistant. A student serving at one-half time (the maximum allowed) will satisfy the requirement in two quarters. Stipends for students serving at one-fourth time as a TA may be supplemented by fellowships or research assistantships.

B. Course Requirements

Each candidate for the Ph.D. degree must clear all deficiencies that are identified by the placement exams taken upon entering the program. Deficiencies are cleared by taking the appropriate undergraduate courses and receiving a GPA of 3.0 or higher in each course. Each candidate must complete a total of six graduate-level courses, exclusive of Chemistry 261, 263, 264, 280, 290, 293, 295, 298, 299, and 390. These six courses consist of a set of specified core courses and a specific number of elective and special topic courses, as given below for the five areas (particular fields of interest). Elective courses may be taken from the Chemistry curricula or from other approved departments, depending on the area. Students should clear all deficiencies and complete all required course work early in their second year in residence. Each core course, and any deficiency course, must be passed with a GPA of 3.0 or higher. In addition, candidates must enroll and participate in Chemistry 290, Seminar, during each quarter in residence, until they advance to candidacy. Enrollment in Chemistry 290 is highly recommended thereafter to stay abreast of innovations in the field. Candidates must be fully registered (12 units) every quarter in residence and maintain a 3.0 or better overall GPA.

Physical Chemistry—(1) Chemistry 210A, 210B, and 211A; and (2) three additional graduate-level courses either in Chemistry or in other approved departments.

Organic Chemistry—(1) Chemistry 219, 231A, and 233; and (2) three additional graduate-level courses either in Chemistry or in other approved departments.

Inorganic Chemistry—(1) Chemistry 205 and 226; (2) two graduate-level special-topics courses in inorganic chemistry; and (3) two graduate-level courses in areas outside of inorganic chemistry, either in Chemistry or in other approved departments.

Analytical Chemistry—(1) Chemistry 205 and 240; (2) two graduate-level special-topics courses in analytical chemistry; and (3) two graduate-level courses in areas outside of analytical chemistry, either in Chemistry or in other approved departments.
Biological Chemistry—(1) Chemistry 205 or 219, Chemistry 210A or 233, and Molecular and Cellular Biology 221A; (2) three additional graduate-level courses either in Chemistry or in other approved departments.