Graduate Program in Chemistry
Ph.D. and M.S. Degree Requirements, revised May 25, 2001
Approved by Graduate Council on September 24, 2001
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, 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, 231, 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- (l) 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.

C. Qualifying Examination

Students must clear any deficiencies and complete all of the TA and course requirements before they are eligible to take the oral qualifying examination. For each area, the chemistry graduate adviser notifies students when they have satisfied these requirements. The qualifying examination committee, which is appointed by the Dean of Graduate Studies in consultation with the chemistry graduate adviser for the area, consists of four faculty members from Chemistry (excluding the research director) and one faculty member from another department. The qualifying examination is normally scheduled in the student's fifth quarter in residence. The committee will examine the student's in-depth mastery of the area in which the thesis research lies. In addition, in order to aid in determining the student's potential for future independent research, the student will present and defend a proposition (of the student's own choice) outside, the immediate area of the thesis research.

D. Advancement to Candidacy

Following the successful completion of the qualifying exam, the student petitions for advancement to candidacy for the degree of Doctor of Philosophy. A committee composed of three faculty members, including the research director, will be appointed to guide the candidate in the research and to pass upon the merits of the dissertation.

E. The Doctoral Dissertation

A dissertation on a subject chosen by the candidate, bearing on the principal subject of study and of such character as to show ability to pursue independent investigation, must receive the approval of the special committee in charge of the dissertation.
Requirements for the Master's Degree in Chemistry

A. Course Requirements

Each candidate for the Master's degree must clear any deficiencies in the candidate's field of interest that are identified by the placement exam 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 take at least three graduate-level courses in Chemistry and obtain an average GPA of 3.0 or higher for three of the courses. The courses are exclusive of Chemistry 261, 263, 264, 290, 293, 295, 298, 299 and 390. Usually they include the core courses for the Ph.D. degree in the student's field of interest (see Section B under "Requirements for the Ph.D. Degree"). The candidate also must enroll and participate in Chemistry 290, Seminar, during each quarter in residence. Each candidate must complete at least 30 units of upper division and graduate-level course work, of which at least 12 units must be graduate-level course work in Chemistry. Candidates must be fully registered (12 units) every quarter in residence and maintain a 3.0 or better overall GPA.

B. Thesis Requirements

The student must complete an acceptable research thesis (see Section E under "Requirements for the Ph.D. Degree") and have been in residence for a minimum of three quarters in full-time standing. The Department only offers a Master's degree that requires submission of a thesis (Plan I) and does not offer a course-work only Master's degree (plan II).