2. Credit by Examination: Well-prepared students may receive up to nine credits by passing the final examinations in 6000- or 7000-level courses. These may be in either the major or minor fields.

3. At least four credits of graduate seminar:
   - CHM 8800 Seminar in Analytical Chemistry 1
   - CHM 8810 Seminar in Organic Chemistry 1
   - CHM 8820 Seminar in Inorganic Chemistry 1
   - CHM 8830 Seminar in Physical Chemistry 1
   - CHM 8840 Seminar in Biochemistry 1

4. At least one credit in CHM 8850.

5. One credit in CHM 6740.

6. Thirty credits in Ph.D. research involving independent research under the direction of a faculty member in the Department. The thirty credit dissertation registration requirement is fulfilled by registering for the courses:
   - CHM 9991 Doctoral Candidate Status I: Dissertation Research and Direction 7.5
   - CHM 9992 Doctoral Candidate Status II: Dissertation Research and Direction 7.5
   - CHM 9993 Doctoral Candidate Status III: Dissertation Research and Direction 7.5
   - CHM 9994 Doctoral Candidate Status IV: Dissertation Research and Direction 7.5

   (Doctoral Dissertation Research and Direction I, II, III, and IV, respectively), in consecutive academic year semesters.

7. Satisfactory completion of a ‘Pre-Oral’ examination based on the student’s doctoral research is required prior to the final writing of the dissertation.

8. Submission of a satisfactory research dissertation.

Academic Scholarship: All course work must be completed in accordance with the regulations of the Graduate School (http://bulletins.wayne.edu/graduate/general-information/academic-regulations) and the College of Liberal Arts and Sciences (http://bulletins.wayne.edu/graduate/college-liberal-arts-sciences/academic-regulations).

Candidacy: In order to become a candidate for the Ph.D. degree, an applicant must successfully complete both a written and oral qualifying examination. The written examination consists of a series of short cumulative examinations administered seven times per year, of which a student must obtain five passes within thirteen attempts (three of which must be in the major division). The oral examination includes the major field and covers minor and cognate fields as well. Any additional requirements set by the Graduate School or the department must be completed. Copies of such requirements may be obtained from the Chairperson of the Departmental Committee on Graduate Study.