

PhD in Chemistry

Admission Requirements

Applicants are considered on an individual basis. For questions regarding the application process, they are advised to contact the graduate coordinator (chemgrad@uic.edu). Complete transcripts of all undergraduate and any graduate coursework must be submitted. In addition to the Graduate College minimum requirements, applicants must meet the following program requirements:

- **Baccalaureate Field** Chemistry or biochemistry. Other fields are considered on an individual basis.
- **Grade Point Average** At least 3.00/4.00 in mathematics and science courses (excluding independent study or research courses) and at least 2.75 for the final 60 semester hours (or 90 quarter hours if the university follows the quarter system) of undergraduate study.
- **Tests Required** None.
- **Minimum English Competency Test Score**
 - **TOEFL iBT** 80, with subscores of Reading 19, Listening 17, Speaking 20, and Writing 21, **OR**,
 - **IELTS Academic** 6.5, with 6.0 in each of the four subscores, **OR**,
 - **PTE-Academic** 54, with subscores of Reading 51, Listening 47, Speaking 53, and Writing 56.
- **Letters of Recommendation** Three letters are required.
- **Personal Statement** Required as part of the [Application for Graduate Appointment](#). The form is accessible online (click the down arrow in the top right corner to make it a fillable PDF). Statement should be submitted on a separate sheet. Research background and interests should be emphasized, and a discussion of the applicant's suitability to our graduate program should be provided.
- **Nondegree Applicants** Nondegree applicants must submit a transcript from their baccalaureate institution and a statement regarding their future plans.

Degree Requirements

After admission, all entering students must take placement examinations. The placement examinations, which are at a level of typical terminal college courses, are offered in the areas of analytical, inorganic, organic, physical, and biochemistry. All graduate students must show proficiency in three areas of their choice. A deficiency in an area must be remedied by taking an advanced undergraduate or a graduate-level course in the area.

Students seeking a PhD degree are encouraged to enter this program immediately after completion of their undergraduate studies. The MS degree is not a prerequisite to the PhD degree in Chemistry.

- **Minimum Semester Hours Required** 96 hours beyond the baccalaureate.
- **Coursework** At least 9 hours must be in lecture courses at the 500 level in the student's major area and 3 hours must be in a chemistry lecture course at the 500 level (or 6 hours in lecture courses at the 400 level in one field) outside the student's area of specialization. Students must meet the seminar requirements of their area of specialization within the program. Students found to be deficient in specific areas of chemistry on the basis of placement examinations may have to complete additional courses.
- **Preliminary Examination** Required. Candidates must fulfill the Assessment for Candidacy requirements and have a Research

Committee Meeting consisting of an oral examination and assessment of research progress by the end of the second year in the program. Advancing to candidacy is dependent on satisfactory completion of these requirements within the time limit set by the department.

- **Assessment for Candidacy^a** Required. All PhD students must take seminar courses, pass exams, and submit reports specific to their chosen area of specialization to meet the prerequisite for PhD candidacy. Doctoral students are required to complete the requirements in their specialization by the end of the fourth semester in residence (excluding summers), including semesters registered as MS students. Doctoral students are also expected to satisfactorily follow the specific guidelines of their specialization to remain in good standing.
 - **Chemistry Education Research** Students complete this requirement by taking and passing an additional 400/500-level course in Chemistry or in a field of educational research approved by the advisor. Students also take and pass CHEM 570 during their second year, in advance of their second year committee meeting.
 - **Analytical Chemistry:** Students must pass CHEM 520 during their second year, in advance of their second year committee meeting, and an additional 400/500-level course.
 - **Biochemistry:** Students are required to take and pass CHEM 550 four times (each semester during their first and second years).
 - **Inorganic Chemistry:** Students are required to submit written research reports at the end of the student's second semester.
 - **Organic Chemistry:** Students are required to take and pass CHEM 530 four times (each semester during their first and second years).
 - **Physical Chemistry:** Students will be required to take and pass CHEM 540 four times (each semester during their first and second years).
- **Dissertation** Required.

a MS students who transfer to or enter the PhD program before completion of the MS degree are also required to meet these requirements by the end of their fourth semester

Interdepartmental Concentrations

Students earning a graduate degree in this department may complement their courses by enrolling in select concentrations after consulting with their graduate advisor. Interdepartmental concentrations available for this degree include:

- [Neuroscience](#)