CHEMISTRY, PHD

for the degree of Doctor of Philosophy in Chemistry

Graduate Degree Programs in Chemistry

Chemistry, MA (http://catalog.illinois.edu/graduate/las/chemistry-ma/)
Chemistry, MS (http://catalog.illinois.edu/graduate/las/chemistry-ms/)
Chemistry, PhD (p. 1)

concentrations:
  Astrochemistry (http://catalog.illinois.edu/graduate/las/concentration/astrochemistry/)
  Computational Science & Engineering (http://catalog.illinois.edu/graduate/engineering/concentration/computational-science-engineering/)
  Chemical Physics, PhD (http://catalog.illinois.edu/graduate/las/chemical-physics-phd/)
  Teaching of Chemistry, MS (http://catalog.illinois.edu/graduate/las/teaching-chemistry-ms/)

Admission

Graduate College requirements apply. Further, applicants should have a bachelor’s degree or its equivalent from an accredited college or university in the U.S. or an approved institution of higher learning abroad, with at least 25 semester hours in chemistry (properly distributed) and a grade point average of 3.0 (A = 4.0), is required to be considered for admission to the graduate programs. Applications from students with less than the usual preparation in chemistry or with grade point averages below 3.0 may be considered on an individual basis.

International students whose native language is not English are required to have a minimum paper-based Test of English as a Foreign Language (TOEFL) score of 580 (237 on the computer-based test). In addition, teaching is a requirement in the chemistry graduate program, and there are special requirements for applicants whose native language is not English. The University requires a minimum Test of Spoken English (TSE) score of 50. Any applicant whose native language is not English is expected to provide TSE scores in order to receive full consideration for admission and financial aid.

Graduate Record Exam (GRE) scores (general or subject) are not required. Please do not submit them.

Students who are currently enrolled in graduate programs at other institutions are advised that they should first complete degree work at their current institution before they will be considered for admission to the chemistry PhD program at the University of Illinois. In addition, we require a statement from the applicant and a letter from the applicant's research adviser or department head detailing the situation. Students might be admitted without a degree from their current institution under exceptional circumstances that will need to be described in detail via a letter from the applicant and a separate statement from the department head of the student’s current graduate program.

Contact chemistry graduate admissions for further information.

Graduate Teaching Experience

Experience in teaching is considered a vital part of the graduate program and is required as part of the academic work of all Ph.D. candidates in this program.

Financial Aid

Support for graduate students is available through fellowships and assistantships. All candidates are considered for these upon application. Graduate students making normal progress toward their degrees generally receive a tuition waiver as well as a stipend.

for the Doctor of Philosophy in Chemistry

Doctoral programs are offered in a wide range of specialties, including the traditional areas of analytical, inorganic, organic, and physical chemistry as well as materials chemistry and chemical biology. The formal course requirements involve 12 or more hours of 500-level courses, plus 8 or fewer hours of 400-level courses, for a total of 20 hours in chemistry and allied relevant fields. Besides completing formal coursework, students will present a literature seminar, have a formal review of progress following the completion of coursework, pass an oral preliminary examination on research preparation, present and defend an original research proposal not related to their thesis research, and submit a thesis on original research, which is defended at a final oral examination.

For additional details and requirements refer to the department’s Graduate Programs (https://chemistry.illinois.edu/academics/graduate-studies/) and the Graduate College Handbook (http://www.grad.illinois.edu/gradhandbook/).

Entering with M.S./M.A. degree

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<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>400-500-level courses in Chemistry or allied fields (max 8 at 400-level)</td>
<td>20</td>
<td></td>
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<tr>
<td>Seminar (CHEM 5X5)</td>
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### CHEM 599

**Thesis Research (0 min applied toward degree)**

| Total Hours | 64 |

### Other Requirements

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<tr>
<td>Other requirements may overlap</td>
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<tr>
<td>Teaching experience</td>
<td>1 year</td>
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<tr>
<td>Qualifying Exam Required</td>
<td>No</td>
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<tr>
<td>Preliminary Exam Required</td>
<td>Yes</td>
</tr>
<tr>
<td>Original Research Proposal</td>
<td>Yes</td>
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<tr>
<td>Final Exam/Dissertation Defense Required</td>
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<td>Dissertation Deposit Required</td>
<td>Yes</td>
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<td>Minimum GPA:</td>
<td>3.0</td>
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### Entering with approved B.S./B.A. degree

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<td>400- or 500-level courses in the Chemistry or allied fields (max 8 at 400-level)</td>
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<td>20</td>
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<tr>
<td>Seminar</td>
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<tr>
<td>CHEM 599</td>
<td>Thesis Research (0 min applied toward degree)</td>
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| Total Hours | 96 |

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**NOTE:** Some of the learning outcomes below were taken or adapted from the 2013 American Chemical Society Presidential Commission on Graduate Education in the Chemical Sciences. The Department of Chemistry uses these as its main guidelines.

1. To have a deep working knowledge of the principles, techniques, and concepts of contemporary chemistry.
2. To be able to effectively design and carry out independent research leading to new knowledge or a practical, applicable result.
3. To be able to communicate clearly and effectively within and across disciplinary lines.
4. To be able to educate students interested in chemical sciences.
5. To be aware of and prepare for various career opportunities with an advanced degree in chemistry.
6. To clearly understand the ethical conduct of research.
7. To understand and adopt the best safety practices in chemical research.

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*Information listed in this catalog is current as of 11/2022*
department head chemistry: Catherine J. Murphy
overview of admissions & requirements: https://chemistry.illinois.edu/admissions/graduate-admissions
overview of grad college admissions & requirements: https://grad.illinois.edu/admissions/apply
department website: Chemistry (https://chemistry.illinois.edu/)
department faculty: https://chemistry.illinois.edu/directory/faculty-by-type
college website: https://las.illinois.edu/
department office: 109 Noyes Laboratory, 505 South Mathews Avenue, Urbana, IL 61801-3080
phone: (217) 333-0711
email: chemistry@illinois.edu (http://catalog.illinois.edu/graduate/las/chemistry-phd/chemadm@illinois.edu)