Chemical and Biomolecular Engineering

http://chbe.illinois.edu

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Major: Chemical Engineering
Degrees Offered: M.S., Ph.D.

Major: Bioinformatics
Degree Offered: M.S.
Graduate Concentration: Chemical and Biomolecular Engineering

Graduate Degree Programs

The Department of Chemical and Biomolecular Engineering offers graduate programs leading to the Master of Science and the Doctor of Philosophy degrees. Students are not admitted into the program with the intention of earning a terminal Master’s degree; however, students may obtain a Master’s degree as a milestone on the path to completing their Ph.D. degree. Opportunity also exists for specializing in computational science and engineering within the department's graduate programs via the Computational Science and Engineering (CSE) Option (http://cse.illinois.edu/students/why-cse).

Admission

Candidates for advanced degrees in chemical engineering should have a background in chemistry and chemical engineering comparable to the training offered in the undergraduate chemical engineering curriculum at the University of Illinois at Urbana-Champaign. Students whose prior training is deficient in one or more basic areas of chemistry or chemical engineering will be admitted with the understanding that their deficiencies will be removed to the extent prescribed by their advisers. Graduate College admission requirements also apply. In addition, applicants must submit results from the Graduate Record Examination (GRE) general test.

International students whose native language is not English are required to have a minimum Test of English as a Foreign Language (TOEFL iBT) total score of 103. In addition, teaching is a requirement in the chemical engineering graduate program and there are special requirements for applicants whose native language is not English. The University requires a minimum of 24 on the spoken section of the iBT, or a Test of Spoken English (TSE) score of 50, for a contact teaching assistant appointment. Applicants with lower scores may still be considered for admission, but successful completion of English courses would be required before being allowed to teach.

Multi-institutional Ph.D. Degree with National University of Singapore

Students in this program will spend approximately equal proportions of their study at the Urbana-Champaign campus and at the National University of Singapore (NUS), taking courses and/or working on their research. The project comprising the research component of the Ph.D. will be cooperatively overseen by faculty at Illinois and NUS. Students pursuing the multi-institutional degree must meet all of the requirements of the existing Ph.D. programs at each of the two institutions. Courses taken at each university must be approved by the other university before they are taken in order to be credited toward degree requirements.

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. All Chemical and Biomolecular Engineering students are required to serve as a teaching assistant for at least three semesters.

Faculty Research Interests

Please see chbe.illinois.edu/research (http://chbe.illinois.edu/research).

Financial Support

Students who remain in good standing and continue to make satisfactory academic progress are guaranteed financial support for the duration of their studies in the program.

The Department of Chemical and Biomolecular Engineering does not admit students into the program with the intention of earning a terminal Master’s degree; however, students who have met the requirements may obtain a Master’s degree as a milestone on the path to completing their Ph.D. degree.

The only exception are students who are enrolled in the special 3+2 program, offered jointly with Zhejiang and Tsinghua Universities in China.

- Master of Science in Bioinformatics, Chemical and Biomolecular Engineering Concentration (http://catalog.illinois.edu/graduate/graduate-majors/chem-bio-engin/ms-bioinfo)
- Master of Science in Chemical Engineering (http://catalog.illinois.edu/graduate/graduate-majors/chem-bio-engin/ms-chem-eng)

Chemical Engineering, PhD

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td></td>
<td>Minimum four of graduate-level courses in chemical engineering</td>
<td>16</td>
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<tr>
<td>A</td>
<td>A coherent program of four additional graduate level courses</td>
<td>16</td>
</tr>
<tr>
<td>599</td>
<td>Thesis Research (0 min applied toward degree)</td>
<td>0</td>
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<tr>
<td></td>
<td>Total Hours</td>
<td>96</td>
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Other Requirements

Other requirements may overlap

- Minimum Hours Overall Required: 16
- Minimum 500-level Hours Required: 20
- Teaching experience is required

Requirements include satisfactory performance on qualifying and certification examinations, and a thesis.

Information listed in this catalog is current as of 01/2019
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<tr>
<th>Requirement</th>
<th>Requirement Details</th>
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<tbody>
<tr>
<td>Masters Degree Required for Admission to PhD?</td>
<td>No</td>
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<tr>
<td>Qualifying Exam Required</td>
<td>Yes, the qualifying examination is a written test usually taken during the first year of study.</td>
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<tr>
<td>Preliminary Exam Required</td>
<td>Yes, the preliminary examination is an individual oral examination taken after the student has satisfied the course requirements.</td>
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<td>Final Exam/Dissertation Defense Required</td>
<td>Yes</td>
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<td>Dissertation Deposit Required</td>
<td>Yes</td>
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<td>Minimum GPA:</td>
<td>2.75</td>
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1 For additional details and requirements refer to the department’s degree programs information (http://chbe.illinois.edu/graduate-program) and the Graduate College Handbook (http://www.grad.illinois.edu/gradhandbook).