CHEMICAL AND BIOMOLECULAR ENGINEERING

http://chbe.illinois.edu

Head of the Department: Paul J.A. Kenis
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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

Medical Scholars Program: Doctor of Philosophy (Ph.D.) in Chemical Engineering and Doctor of Medicine (M.D.) through the Medical Scholars Program (http://www.med.uiuc.edu/mdphd)

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. Those interested should write to the address above for application materials and a departmental brochure, which gives greater detail on programs, offerings, admission, degree requirements, and financial aid. 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 paper-based Test of English as a Foreign Language (TOEFL) score of 610 (257 on the computer-based test). 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 Test of Spoken English (TSE) score of 50 for a contact teaching assistant appointment. It is desirable for applicants whose native language is not English to provide TSE scores in order to receive full consideration for admission and financial aid.

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

Students in this program will spend approximately equal proportions of their study at the Urban-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.

Medical Scholars Program

The Medical Scholars Program permits highly qualified students to integrate the study of medicine with study for a graduate degree in a second discipline, including Chemical Engineering. Students may apply to the Medical Scholars Program prior to beginning graduate school or while in the graduate program. Applicants to the Medical Scholars Program must meet the admissions standards for and be accepted into both the doctoral graduate program and the College of Medicine. Students in the dual degree program must meet the specific requirements for both the medical and graduate degrees. On average, students take eight years to complete both degrees. Further information on this program is available by contacting the Medical Scholars Program, 125 Medical Sciences Building, (217) 333-8146 or at www.med.illinois.edu/msp (http://www.med.illinois.edu/msp).

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.

Faculty Research Interests

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

- 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)

Doctor of Philosophy in Chemical Engineering

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

Other requirements may overlap

Minimum Hours Overall Required | 16
Within the Unit:
Minimum 500-level Hours Required | 20
---|---
Overall: | 20

Teaching experience is required
Requirements include satisfactory performance on qualifying and certification examinations, and a thesis.

| Masters Degree Required for Admission to PhD? | No |
| Qualifying Exam Required | Yes, the qualifying examination is a written test usually taken during the first year of study. |
| Preliminary Exam Required | Yes, the preliminary examination is an individual oral examination taken after the student has satisfied the course requirements. |
| Final Exam/Dissertation Defense Required | Yes |
| Dissertation Deposit Required | Yes |
| Minimum GPA: | 2.75 |

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).