

ENGINEERING: CHEMICAL ENGINEERING LEADERSHIP, MENG

for the degree of Master of Engineering in Engineering, Chemical Engineering Leadership Concentration (on campus & online)

The Grainger College of Engineering offers a Master of Engineering in Engineering (MEng) degree program for students whose primary intent is a professional career in industry or government. This degree differs from the Master of Science (MS) degree in that it is a professionally oriented master's degree that is not a pathway to a doctoral program. The M.Eng. degree requires an interdisciplinary concentration, which must be selected at the time of application.

The Chemical Engineering Leadership MEng degree will be a 34-credit hour program for students with a Chemical Engineering BS degree. Students without a Chemical Engineering BS degree will need to take three additional 400-level Chemical Engineering core courses (11 hrs) to gain the fundamentals necessary to be successful in this MEng program. This program combines a chemical engineering technical core and a diverse collection of chemical engineering electives, with essential professional development components across a range of topics including financial analysis, leadership, management, and strategic planning to prepare students to take their career development to the next level.

The curriculum features two special-topic courses which will include in-person workshops (Fall and Spring semesters). These workshops will be two-day sessions where students will meet with experienced industry leaders and senior executives from world-class companies and organizations. The two-day in-person workshops will include pre-workshop class assignments and post-workshop projects designed to prepare students for workshop sessions and to apply skills developed in workshops. Through the workshops, students will learn how the skills, processes, and practices presented in the course materials have been successfully applied in a wide variety of real-world roles and situations. Each workshop participant will be expected to develop a personal leadership and development action plan to apply their learnings to their own career objectives.

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Students in the program need to take the required courses listed in the table and take a minimum number of 34 credit hours to satisfy the concentration requirements. Students with BS degrees in fields other than CHBE may be required to take a selection of undergraduate CHBE courses as prerequisites prior to completing required core courses in MEng program.

Code	Title	Hours
Technical Core		12
CHBE 521	Applied Mathematics in CHBE	
CHBE 523	Heat and Mass Transfer	
or CHBE 513	Advanced Transport Phenomena	
CHBE 551	Chemical Kinetics & Catalysis	
or CHBE 516	Reactor Process Engineering	

Management & Leadership Core 10

BADM 508	Leadership and Teams
ACCY 503	Managerial Accounting
CHBE 594	Special Topics

Professional Electives 4

Choose from the following:	
ENG 572	Professional Practicum
ENG 573	Capstone Project
BADM 544, TE 450, TE 460, TE 461, TE 466, TE 565 (Additional courses may count with advisor approval)	

Technical Electives 8

Choose from ChBE 400- or 500-level courses in approved Technical Electives list (Up to 4 credit hours of non-ChBE technical elective course credit will be allowed with approval of ChE concentration advisor.)

CHBE 453, CHBE 471, CHBE 472, CHBE 473, CHBE 475, CHBE 516, CHBE 522, CHBE 525, CHBE 551 (if not taken as Core course)	
CHBE 594: Special Topics: Graduate level enriched versions of the following courses:	
CHBE 455, CHBE 458, CHBE 476, CHBE 478	

Total Hours 34

Additional Required Courses for Students without a BS in Chemical Engineering

Code	Title	Hours
Technical Core Courses		11
CHBE 421	Momentum and Heat Transfer	
CHBE 422	Mass Transfer Operations	
CHBE 424	Chemical Reaction Engineering	

Other Requirements

Code	Title	Hours
Minimum 500-level hours required overall:		12
Minimum credit hours taken from the University of Illinois at Urbana-Champaign campus:		20
No courses used to fulfill any degree requirement may be taken using the "Credit/No Credit" option.		
Minimum GPA:		3.0

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The objectives of the ChBE Professional MEng program are to:

- Develop advanced engineering skills that apply to the student's area of interest
- Learn how experienced technical leaders and executives apply their skills to solve real-world challenges (context)
- Understand how to identify, define, and deliver high value technical solutions to various stakeholders
- Apply the learned skills through an industrial or research experience
- Become a team leader and a more effective team member of diverse, multi-discipline teams

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Admission

Students with bachelor's or master's degrees in engineering or related sciences will be considered for admission if they have a grade point average of at least 3.00 (A = 4.00) for the last two years of undergraduate study. Admission is possible for both the fall and spring semesters. Full details of admission requirements are on the Web page of the department offering the concentration.

All applicants whose native language is not English are required to submit TOEFL or International English Language Testing System (IELTS) scores as evidence of English proficiency. Minimum admission requirements are set by the Graduate College.

Check the MEng Program website (<https://chbe.illinois.edu/admissions/masters/apply/>) for the most up-to-date timelines and information regarding application deadlines and fees.

Application Materials

- Submit/upload unofficial transcripts for all completed university coursework in the Online Application. Official transcripts will be required upon admission and acceptance to the program. If you are offered admission, you must submit final, official academic credentials within one month of the start of the semester to the Graduate College.
- Submit a resume or curriculum vitae. This is a part of the online application form. Your resume should address your education, job experience, remarkable achievements, publications, organizations, awards, and leadership experiences.
- Submit an academic statement of purpose. This is a part of the online application form. Provide your Academic Statement of Purpose to describe in 1000 words:
 - a. How has your academic and professional background, including any professional training, prepared you for graduate study?
 - b. How will our program help you achieve your intellectual, professional, and career goals?
 - c. What are your career interests and why do you wish to pursue graduate studies in this specific program?
 - d. (Optional) Are there any personal experiences, achievements, strengths, or circumstances you would like to include or that you believe will help you succeed in our program?
- Submit 3 letters of recommendation. Individuals writing letters of recommendation on your behalf should submit their letters through the online application system.
- GRE scores are optional. If you have already taken or plan to take the GRE, you may submit your scores to the Graduate College using institution code number 1836. If GRE scores are submitted, they must be official. (Please follow the Graduate College instructions on submitting Test Scores.)

All applicants whose native language is not English:

- Proof of English proficiency is not required for admission for domestic applicants. All international degree-seeking applicants are required to submit the results of an official TOEFL, IELTS, or Duolingo test as evidence of English proficiency unless they qualify for an exemption. The Graduate

College details the accepted tests, proficiency requirements, and exemptions.

Ensure all your application materials have been submitted successfully and access your application status through the admissions portal.

Admissions Criteria

Minimum Requirements:

- Bachelor's in engineering or related sciences, such as chemistry, materials science, bioengineering, and biomedical engineering (Applicants without a chemical engineering degree are encouraged to take our program's technical core courses (<https://chbe.illinois.edu/academics/masters/degree-requirements/#technicalcore>), which comprise three courses / 11 credit hours).
- Minimum 3.0 GPA for the last two years of undergraduate study.
- Proof of English proficiency is not required for admission for domestic applicants. All international degree-seeking applicants are required to submit the results of an accepted test as evidence of English proficiency unless they qualify for an exemption. The Graduate College (<https://grad.illinois.edu/admissions/apply/begin/international/>) details the accepted tests, proficiency requirements, and exemptions.

Selection Criteria

The Admissions Committee carefully reviews and evaluates all complete applications holistically. Your personal essay, as well as your letters of recommendation, are important criteria for selection. We understand that there may be extenuating circumstances related to your credentials, which you are welcome to explain in your essay. The primary skills we look for are your potential to be a leader through your academic accomplishments, extracurricular activities, etc. We do not require any internship or work experience, but that is a bonus.

Admission Decisions

Applications are reviewed on a rolling basis. Prospective students are encouraged to submit their applications before the deadline. Admission decisions are communicated via email to the email address provided in the applicant's application.

Additional certification or documentation may be required from applicants who are recommended for admission in order to process the admission recommendation with the Graduate College Admission Office. Applicants who are recommended for admission will need to submit an official final transcript that shows completion of all courses and degrees awarded upon final review by the Graduate College Admission Office.

Financial Aid

Students in this degree program are not eligible for Board of Trustees (BOT) tuition-waiver generating assistantships at the University of Illinois. More information about tuition and fees can be found on our website (<https://chbe.illinois.edu/admissions/masters/tuition/>).

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Chemical Engineering Leadership Concentration

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Chemical Engineering Leadership Program email (chbe-meng@illinois.edu)

Chemical and Biomolecular Department

Chemical Engineering Leadership website (<https://chbe.illinois.edu/academics/masters/>)

Graduate, Professional and Online Programs

Associate Dean: Daniel Bodony
402 Engineering Hall, 1308 W Green St, Urbana, Illinois 61801
(217) 244-2745
Graduate, Professional and Online Programs email (engr-gpo@illinois.edu)

Grainger College of Engineering

Grainger College of Engineering website (<https://grainger.illinois.edu/>)

Admissions

Grainger College of Engineering Admissions & Requirements (<https://grainger.illinois.edu/academics/graduate/>)
Graduate College Admissions & Requirements (<https://grad.illinois.edu/admissions/apply/>)