Welcome from the department head

Dear Prospective Student,

Our graduate program offers an excellent professional experience that combines classes to learn chemical engineering theory with research, then putting it into practice. Students study transport phenomena, reaction engineering and thermodynamics in depth. Classes are taught by experienced, award-winning faculty with a wealth of professional experience. Students also create new knowledge and technology in their cutting-edge research on sustainable energy and advanced materials. They learn skills by working with state-of-the-art instruments for materials synthesis and characterization, and molecular modeling tools supported by high-performance computing clusters. Our research is multi-disciplinary, as it involves collaborations with many other universities and national laboratories.

I encourage you to consider joining our graduate program, and its students and faculty who share your dedication and enthusiasm for professional advancement.

J.H. Edgar
Department head
University Distinguished Professor

Manhattan, Kansas and K-State campus

K-State rankings

Our engineering graduate program is currently 59th in the U.S. News and World Report Public School rankings. K-State is recognized by the Princeton Review as one of America’s best colleges.

Manhattan community

Manhattan, nicknamed “The Little Apple,” is a great environment to start a new chapter of your life. The city ranks among the best classic college towns in the country.

Aggieville

Aggieville, an entertainment district close to campus, features more than 100 restaurants, bars and shops, many of which are locally owned. It has been a popular attraction for more than 125 years.

Helpful websites

Cost-of-living and tuition information:
k-state.edu/sfa/costofattendance/gtc.html

Graduate student life information:
k-state.edu/grad/students/graduatestudentlife/
GraduateStudentLife.html

Engineering graduate programs information:
engg.ksu.edu/ergp/grad-program

Notice of Nondiscrimination
Kansas State University is committed to nondiscrimination in admissions, programs and employment. Inquiries and complaints: Contact Director of Institutional Equity, Kansas State University, 103 Edwards Hall, Manhattan, KS 66506-4801, (Phone) 785-532-6230, (TTY) 785-532-4887.
Research areas

Sustainable energy

- Solar thermal ammonia synthesis
- Fuels and specialty chemical production from biomass
- Single-molecule spectroscopy
- Catalytic membrane reactors
- Liquid and gas separations
- Fischer-Tropsch process: conversion of CO and H₂ to liquid hydrocarbons
- Heterogeneous catalysis
- Analysis of catalysis by first-principles density functional theory (DFT) and molecular simulation

Advanced materials

- Nanotechnology
- Nanocarbons for high-energy-density lithium ion batteries
- Chemical, biological and radiation sensors
- Wide band gap semiconductor crystal growth
- Ionic liquids
- Biological interfaces
- Emulsions for pharmaceutical applications

Research trains students to think creatively, as they develop innovative processes and technologies to solve major societal problems. They learn to critically analyze challenges and potential solutions, to find the most viable and practical paths forward.

ChE degrees

Ph.D. degree

Students learn advanced knowledge in areas of specialization, an ability to independently plan and conduct scholarly research, and effective communication. The program prepares graduates for advanced chemical engineering research in industry, academia and government laboratories.

M.S. — Global Campus

The Master of Science in chemical engineering program is designed for working professionals who have already obtained a bachelor’s degree in chemical engineering. All graduate courses leading to the degree are available online to students residing both in and out of the United States. For more information, visit global.k-state.edu/engineering/chemical/.

Application process

Admission requirements

- A baccalaureate degree in chemical engineering from an accredited institution, with a grade point average (GPA) of at least 3.0 out of 4.0 (or equivalent), is required.
- Minimum GRE scores — verbal - 148, quantitative - 155
- TOEFL scores must be at least 90 (Internet-based), with no scores below 20 on reading, listening and writing sections. Applicants whose primary language is English are not required to demonstrate their English proficiency.

Application deadlines

January 8 for fall (August) enrollment
August 1 for spring (January) enrollment
December 1 for summer (June) enrollment

Financial assistance

Students accepted as Ph.D. candidates receive stipends of $29,000 per year, plus tuition and health insurance in the form of Graduate Research Assistantships (GRAs) and Graduate Teaching Assistantships (GTAs). Exceptional students are also eligible for scholarships of up to $5,000 per year.

English language program (ELP)

Kansas State University offers English language graduate support courses. ELP academic advisers help students who are admitted to study in a degree program make the transition from the ELP into their academic departments.

Visit k-state.edu/elp for more information.