

# Application Process

## Admission requirements

- A baccalaureate degree in chemical engineering from an accredited institution, with a GPA of at least 3.0 out of 4.0 (or equivalent), is required.
- Minimum GRE scores: verbal - 148, quantitative - 155

## Application deadlines

- Jan. 8 for fall (August) enrollment
- Aug. 1 for spring (January) enrollment
- Dec. 1 for summer (June) enrollment

All application materials can be submitted online at [k-state.edu/grad/application](http://k-state.edu/grad/application).

## International student requirements

Test	Minimum score
IBT TOEFL (interest-based)	79
TOEFL (PBT)	550
IELTS	6.5
Pearson Test of English (PTE)	58

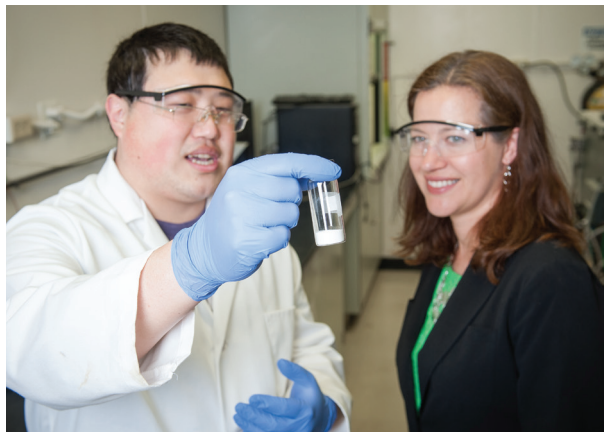


## Financial assistance

Students accepted as doctoral candidates receive stipends of \$29,500 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. For more information, visit [k-state.edu/elp](http://k-state.edu/elp).



## Helpful websites

Engineering Research and Graduate Programs  
[engg.k-state.edu/ergp](http://engg.k-state.edu/ergp)

Graduate catalog  
[catalog.k-state.edu/index.php?catoid=2](http://catalog.k-state.edu/index.php?catoid=2)

Cost-of-living and tuition information  
[k-state.edu/sfa/costofattendance](http://k-state.edu/sfa/costofattendance)

Graduate student life information  
[k-state.edu/grad/students](http://k-state.edu/grad/students)

### 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) 785-532-6220.

# CHEMICAL ENGINEERING

## Graduate Program



**KANSAS STATE**  
UNIVERSITY

Carl R. Ice College of Engineering

[che.k-state.edu](http://che.k-state.edu) • [che@k-state.edu](mailto:che@k-state.edu)  
785-532-5584



# Welcome

Dear Prospective Student,

Our graduate program offers an excellent professional experience that combines classes focused on chemical engineering theory with research and practical implementation.



Students study transport phenomena, reaction engineering and thermodynamics in depth. Classes are taught by experienced, award-winning faculty with a wealth of professional experience.

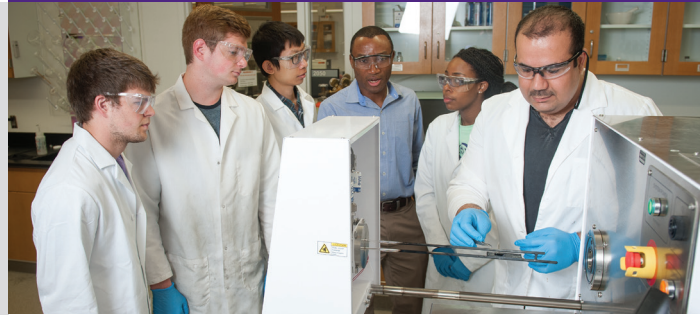
Students also create new knowledge and technology through cutting-edge research on sustainable energy and advanced materials. They learn skills by working with state-of-the-art instruments for materials synthesis and characterization, and molecular modeling tools supported by high-performance computing clusters. Our research is multi-disciplinary and 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  
University Distinguished Professor and  
department head



# 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 H<sup>2</sup> to liquid hydrocarbons
- Heterogeneous catalysis
- Analysis of catalysis by first-principles density functional theory (DFT) and molecular simulation

## Advanced materials

- Nanocarbons for high-energy-density lithium ion batteries
- Chemical, biological and radiation sensors
- Wide bandgap semiconductor crystal growth
- Ionic liquids
- Biological interfaces
- Emulsions for pharmaceutical applications
- Polymeric nanomaterials for drug and bioactive gas delivery

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.

# Degrees

## Master of Science(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/](http://global.k-state.edu/engineering/chemical/).

## Doctor of Philosophy

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.

