









Department of Chemical Engineering

Texas Tech University | Edward E. Whitacre Jr. College of Engineering

About the Department of Chemical Engineering

Chemical engineering is an exciting and challenging discipline that combines the principles of chemistry, physics, biology, and math with the discipline of engineering to solve modern technological problems and to be of effective service to society. For example, as a chemical engineer you can work on enabling clean water solutions, designing advanced processes to deliver medical treatment, designing and optimizing processes for the manufacturing of chemicals, food, and advanced materials, among others. Chemical engineers at Texas Tech are trained to transform the world with socially responsible solutions to global problems. As a chemical engineer, you will participate in the continual development of new processes and new products that form the basis of much of the manufacturing segment of the global economy.

Points of Pride

- Ranked #7 Best Value Chemical Engineering program by collegefactual.com
- Ranked #23 for best Bachelor's Chemical Engineering degrees by Grad Reports.
- B.S., M.S., & PhD Programs Accredited by ABET 129 Hours Minimum for B.S.
- Combined BS/MS program

Engineering a Global Future

Transforming lives; one student at a time

Research Focus Areas

- Biomechanical Engineering and Nanomedicine
- Soft Matter and Nanotechnology
- Energy and Sustainability
- Computational Modeling and Data Science
- Electrochemical Engineering

Preparing you for a Global Future

- Hands-on-learning experience in a pilot plant facility (Morrow Energy Pilot Plant) as used in industry to design processes, refine design and scale production, optimize operating conditions, and test new ideas and products
- State-of-the-art laboratories (Valero Lab) to test ideas and theories at the bench-scale before they are scale to pilot
- Strong ties to industry and unique Alumni Mentoring Program that serves students of all levels and provides opportunities for our students to connect with industry leaders
- Opportunities for preparation in entrepreneurship with unique curriculum and experiences targeted to chemical engineers
- Suite of opportunities for our students to become global thinkers, e.g., our students work alongside world renowned faculty and graduate students to work on groundbreaking research to solve major problems in the world
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 the world with socially responsible solutions to global
 problems. As a chemical engineer you will participate in
 the continual development of new processes and new
 products that form the basis of much of the manufacturing
 segment of the global economy.



Academic Success

- Discussion sessions are capped with no more than 49 students in each section, which provides us with a top-notch faculty-to-student ratio
- Students meet with their academic advisor each semester to ensure they are staying on track with their degree program
- Tutoring sessions led by chemical engineers directly. There are many free resources available to students to promote academic achievements:
- Supplemental Instruction
- University Tutoring Center
- Residence Hall Learning Communities
- Engineering Opportunities Center Tutoring Center
- Access to Professors for direct assistance

Student Organizations

- American Institute of Chemical Engineers (AICHE) Student Chapter
- Chemical Engineering Graduate Student Association (ChEGSA)
- Chemical Engineering Car Team
- Society of Plastic Engineers (SPE)
- Chemical Engineering Student Advisory Council
- Computational Thinking Club (CTC)
- Electrochemical Society (ECS)

Careers

Students who graduate with a degree in chemical engineering will find jobs all over the globe and in a variety of settings, such as, energy, production of chemicals, oil and gas, water treatment, food production, consumer products, design and engineering companies.

- 23:1 Student-Faculty Ratio
- \$85,000 Average Annual Salary



