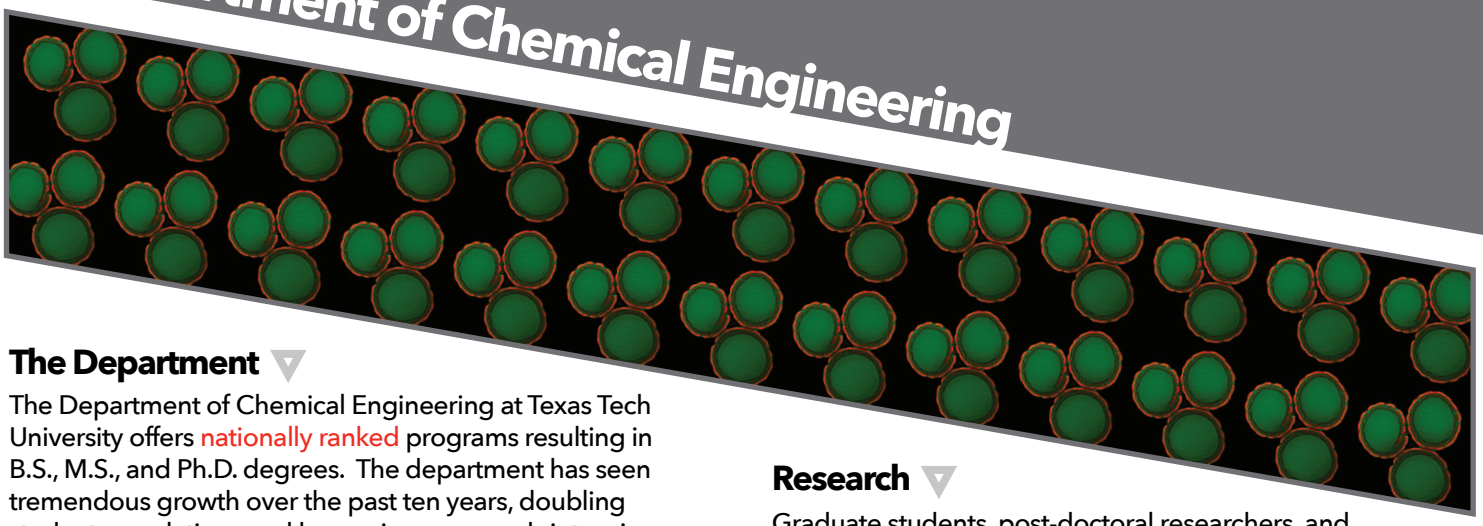
Department of Chemical Engineering



The Department

The Department of Chemical Engineering at Texas Tech University offers nationally ranked programs resulting in B.S., M.S., and Ph.D. degrees. The department has seen tremendous growth over the past ten years, doubling student populations and becoming a research-intensive department. Momentum continues to grow as we attract the very best students and award-winning faculty.

Undergraduate students experience small class sizes, hands-on learning in laboratories, and pragmatic instruction from highly productive faculty with industrial experience. Hard-working students are well prepared for an exciting and challenging profession in chemical engineering that combines the principles of the physical and chemical sciences with the discipline of engineering to solve modern problems and serve society.

Graduate students are nationally recognized for significant contributions to scholarship and research. Through dynamic instruction in the classroom and mentorship with faculty members, master's and doctoral students have opportunities to perform innovative state-of-the-art research in both traditional and emerging areas of chemical engineering.

By the Numbers

Enrollments (Fall 2014):

Undergraduate	211
Estimated Qualifying Foundational Students	129
Master's	10
Doctoral	65
Tenure and Tenure-Track Faculty:	16
Endowed Chairs, Professors, and Fellows:	3

Research

Graduate students, post-doctoral researchers, and motivated undergraduates are involved in cutting edge research with faculty who are leaders in their fields, including:

- Bioengineering
- Energy and Sustainability
- Polymers and Materials
- Simulation and Modeling in Chemical Engineering

Areas of Study

- Bachelor of Science in Chemical Engineering
- Master of Science in Chemical Engineering
- Doctor of Philosophy in Chemical Engineering

Contacts

Dr. Sindee Simon
Whitacre Department Chair
sindee.simon@ttu.edu
www.che.ttu.edu

Susan E. Smith
Senior Director, Development and External Relations
susan.e.smith@ttu.edu

TEXAS TECH UNIVERSITY
Edward E. Whitacre Jr. College of Engineering™
Box 43103 | Lubbock, Texas 79409-3103
T 806.742.3541 | F 806.742.3493
www.coe.ttu.edu

Department of Chemical Engineering

Faculty Research Specializations

Dr. Chau-Chyun Chen
Professor and Jack Maddox Distinguished Engineering Chair in Sustainable Energy
Molecular thermodynamics, phase equilibria, process modeling

Dr. Gregory B. McKenna
Horn Professor and John R. Bradford Chair in Engineering
Polymer and soft matter physics, rheology, nanorheology, nanomechanics

Dr. Harvinder Singh Gill
Assistant Professor
Drug and vaccine delivery, bionanomaterials, immunomodulation

Dr. Nurxat Nuraje
Assistant Professor
Enhanced oil recovery, photocatalysis, renewable energy

Dr. Ronald C. Hedden
Associate Professor
Networks, gels, and elastomers, biofuels, polymer processing

Dr. Al Sacco Jr.
Dean of the Whitacre College of Engineering
Transition metal and acid catalysts, zeolite synthesis

Chijuan Hu
Assistant Professor of Practice
Sustainable Energy, Energy Storage; Biotechnology, First and Second Generation Biofuels, Bioprocesses

Dr. Sindee L. Simon
Whitacre Department Chair and Horn Professor
Physics of glasses, nanoconfined reactions, calorimetry, dilatometry

Dr. Sheima Jatib-Khatib
Assistant Professor
Heterogeneous catalysis, membrane reactors

Dr. Siva A. Vanapalli
Associate Professor and Graduate Advisor
Microfluidics, mechanics of cells and biopolymers, colloidal assembly

Dr. Rajesh Khare
Associate Professor
Molecular dynamics and simulations of polymer and soft matter

Dr. Mark W. Vaughn
Associate Professor and Undergraduate Advisor
Nitric oxide in microcirculation, membrane transport

Dr. Carla Lacerda
Assistant Professor
Mitral heart valve degeneration: models, mechanisms, and prevention

Dr. Brandon Weeks
Professor and Associate Department Chair
High explosives, nanolithography, microcantilever, crystal growth

Dr. Wei Li
Assistant Professor
Cell/polymer interactions, cell microevironments, biomedical devices

Dr. Theodore F. Wiesner
Associate Professor
Solar energy, hydrogen production, CO_2 mitigation

Dr. Jeremy Marston
Assistant Professor
Fluid and granular flows, cavitation, high speed imaging

Open Faculty Positions 4
Bioengineering
Energy and Sustainability
Soft Matter
All Areas

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