Established as the Department of Civil Engineering when the university opened in 1925, the department prepares students for careers in construction engineering, environmental engineering, geotechnical engineering, structural engineering, transportation engineering, water resources engineering, and wind engineering.

Students have developed a reputation of preparedness, a strong work ethic, and a willingness to advance their knowledge and experience to meet society’s challenges in a sustainable and efficient manner.

Faculty members have risen to international prominence in wind engineering, water resources engineering, and glazing designs for wind and blast loads, and strong programs exist through collaborations within the department, the college, and across the university in transportation research, structures research, environmental engineering, geotechnical engineering, and design and modeling in a wide range of the department’s sub-disciplines.

With a changing world, the department is preparing students for emerging technological advances, including Building Information Modeling, and working – through the confluence of the department’s collective areas – to maintain sustainability of resources in all aspects of projects.

Complementing classroom instruction in key civil, environmental, and construction engineering concepts and techniques, Texas Tech faculty members conduct research in the department’s research centers and institutes:

- **Center for Multidisciplinary Research in Transportation (TechMRT):** TechMRT is committed to all facets of transportation research, including pavement engineering and construction, geotechnical engineering, transportation hydraulics, structural engineering, traffic engineering, environmental engineering, data integration and sustainability.

- **Murdough Center for Engineering Professionalism and National Institute for Engineering Ethics (NIEE):** This center promotes engineering ethics, relating its findings to students and professional engineers across the country.

- **Water Resources Center (WRC):** The WRC focuses on improving water quality, water availability, and water resources management.

**Areas of Study**

- Bachelor of Science in Civil Engineering
- Bachelor of Science in Construction Engineering
- Bachelor of Science in Environmental Engineering
- Dual Degree: Bachelor of Science in Architecture and Bachelor of Science in Civil Engineering
- Graduate Certificate in Construction Engineering and Management
- Master of Science in Civil Engineering
- Master of Environmental Engineering
- Doctor of Philosophy in Civil Engineering

**By the Numbers**

Enrollments (Fall 2014):

- Undergraduate: 306
- Estimated Qualifying Foundational Students: 165
- Master’s: 47
- Doctoral: 37

Faculty Members: 30

Endowed Chairs, Professors, and Fellows: 3

**Contacts**

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Susan E. Smith
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Open Faculty Positions
Environmental/Water

Dr. Sang-Wook Bae
Assistant Professor

Dr. Xinzhong Chen
Associate Professor

Dr. Theodore Cleveland, P.E.
Associate Professor

Dr. Mukaddes Darwish
Associate Professor

Dr. David Ernst
Associate Professor and Interim Department Chair
Engineering education

Bobby Green, P.E.
Associate Professor
Circuit Theory, Electric Power and Red Imported Fire Ants, Electric pulsed power and pulsed power modulators, Roadway lighting, Locating buried pipelines, Biomedical Instrumentation, Highly Compact Building Forms

Dr. Tewodros Ghebrab, P.E.
Assistant Professor and Graduate Advisor (Construction Engineering) Perfo. of cement bd. mat. and admixtures, Effect of mineral/chemical admixtures on the struct.-property relat. of cement bd. mat., Mod. of mech. and physical properties of cementitious mat. cont. nano-size mineral admixtures

Dr. W. Andrew Jackson, P.E.
Professor, Associate Chair, and Graduate Advisor (Environmental) Occurrence, Impact and Fate of Perichlorate. Biological wastewater pre-treatment for wastewater recycling, Fate of micro-contaminates in the environment, Crude oil fate in wetlands and marshes. Use and dev. of passive samplers for contaminant fate studies

Dr. Priyantha W. Jayawickrama
Associate Professor and Graduate Advisor (Civil) Design of Bridge Found., Design of Bridge Approach Systems, Improved Quality Control Protocols for Pavement Mat.

Dr. William D. Lawson, P.E.
Associate Professor
Expansive/unsaturated soil behav., Soil/struct. Inter., Mech. ly stabilized earth retaining walls, Comp. earth blocks, Pavement end drop-offs, Pavement maint. mthds., Methodology for conducting forensic studies of residential Fnd. failures

Dr. Sang Lee
Assistant Professor
Appl. of emerging tech. for more efficient infrastruct. manag., Sus. const. mthds. and mat. in buildings and infrastruct. systems, Engr. cost analysis of const. proj., Dev. of risk manag. plan, Bidding strategy and bid-markup decision

Dr. Daan Liang, P.E.
Associate Professor and Interim Director, Nanjing Wind Institute Remote-Sensing Imagery, Post Storm Damage Assessment and Recovery, Wind Effects on Buildings and Struct., Wind Storm Damage Assessment Techniques, Agent-basd. Recovery Mod.

Dr. Hongchao Liu, P.E.
Horn Professor
Wind loads, damage analysis, Design for tornadoes and hurricanes, Interdisciplinary research and studies, Wind engin.

Dr. Kayleigh Millerick, P.E.
Assistant Professor
Redox transformation of aquatic organic micropollutants; Treatment of contaminants adsorbed to activated carbon; Microbiology and microbially-mediated transformations, bioremediation

Faculty Research Specializations

Dr. Audra N. Morse, P.E.
Professor
Water and Wastewater Treatment, Water reclamation systems and Fate of personal products in treatment systems

Dr. Stephen M. Morse
Assistant Professor
Window Glass Str. Design, Wind loads on Struct., Finite Element Mod. of Brittle Mat., Large Scale Data Processing and Data Mining

Dr. Ali Nejad
Assistant Professor

Dr. H. Scott Norville, P.E., F.A.S.T.M.
Professor
Str. & Behav. of Window Glass under Extreme Loading, Blast Resist. Glazing Design, Str. of Heat Treated Glass, Behav. of Triple Glazed Insul. Glass Units, Str. & Behav. of Laminated Glass with High Perf. Interlayers, Dev. of Sds. for Test./Des. Window Glass

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Donovan Maddox Distinguished Engr. Chair and Professor Contaminant fate and behav. in the environment, Mod. env. processes, Assessment and manag. of contaminated sediments, Treatment and recycling of produced and flowback waters. Sust. manag. of water resources

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