BUILD WHAT'S NEXT

VIEWBOOK

EDWARD E. WHITACRE JR.
COLLEGE OF
ENGINEERING
TEXAS TECH

Contents

4

You're never on your own. We're with you every step of the way.

5

Find your people. Build connections that last far beyond the classroom.

6

Big opportunities. Unexpected experiences. Lubbock is more than a college town—it's your launch point.

7

Take your education beyond Lubbock with global experiences that expand your perspective.

8

Choose your path. Then make it your own.

9

From costs to scholarships, here's how to make your path to engineering possible.

10

Let's get to Wreckin'.

Welcome to the Edward E. Whitacre Jr. College of Engineering!

Choosing where to pursue your engineering degree is an important decision, and I'm excited that you are exploring what our college has to offer. Here, you will find more than a place to study engineering—you will find a community that encourages curiosity, challenges you to think differently, and prepares you to take on the problems that shape our world.

Engineering is about building what comes next. We look forward to seeing what you will create.

Dr. Roland Faller
Dean, Edward E. Whitacre Jr. College of Engineering

7 Departments

15 Undergraduate Academic Programs*

State-of-the-art Research Facilities

Students learn in cutting-edge labs and research facilities designed to support discovery, innovation, and real-world engineering solutions. From collaborative maker spaces to advanced testing environments, students gain hands-on experience designing, building, and solving complex challenges alongside faculty mentors.

ABET-ACCREDITED PROGRAMS

10 Engineering degrees meet the global standard for engineering education.

100+ LABS & FACILITIES

Hands-on spaces where students design, test, and build new technologies.

21:1

Student-to-Faculty Ratio

6,087

Total enrollment in 2025

KEY TO YOUR FUTURE

at Texas Tech University

Since 1925, the Whitacre College of Engineering has prepared students to solve real-world challenges. Through hands-on learning, cutting-edge research, and industry connections, our students graduate ready to build the future.

Learner-Centered Hands-On Experience

State-of-the-art labs give students practical engineering experience before entering the workforce.

Foundational Engineering Core

Begin on your engineering path with the flexibility to explore disciplines and confirm the right fit, without losing time or money.

No Cap on Engineering Majors

Students are not limited by space restrictions when entering engineering majors.

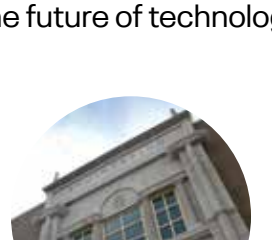
Dedicated Student Success Support

Embedded advisors and specialists guide students throughout their academic journey.

** Electrical Engineering Technology program pending final approval by the Texas Higher Education Coordinating Board (THECB)*

MILES OF POSSIBILITIES

Engineering is about possibility—and at the Whitacre College of Engineering, those possibilities stretch across every discipline. Students collaborate with faculty on groundbreaking research, tackle real-world challenges, and gain hands-on experience that prepares them to lead in a rapidly evolving world. Across our departments, innovative ideas become practical solutions that impact industries, communities, and the future of technology.



CHEMICAL ENGINEERING

Valero Experiential Learning Lab and Morrow Energy Pilot Plant give students hands-on experience scaling processes from concept to production.

CIVIL, ENVIRONMENTAL, & CONSTRUCTION

National competitions and an integrated internship provide CECE students hands-on, real-world experience in engineering and construction.

COMPUTER SCIENCE

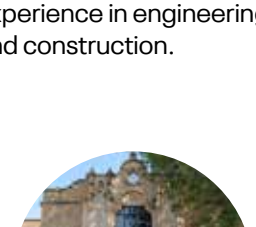
Graduates launch careers at leading tech companies including Google, Microsoft, Amazon, Apple, NVIDIA, Oracle, and Meta.

ELECTRICAL & COMPUTER ENGINEERING

Design labs integrate engineering, project management, budgeting, and presentations, supported by research centers and tutoring.

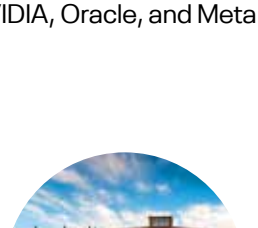
INDUSTRIAL, MANUFACTURING & SYSTEMS ENGINEERING

Hands-on problem solving across engineering management, manufacturing, data analytics, human factors, and complex systems.



MECHANICAL & AEROSPACE ENGINEERING

Capstone projects and specialized labs—including thermo-fluids, controls, materials testing, and manufacturing—drive hands-on learning.



PETROLEUM ENGINEERING

The Oilfield Technology Center—home to the nation's only university-based working drilling rig—gives students hands-on experience with real oilfield equipment.

SUPPORT BUILT FOR ENGINEERS

Engineering is challenging — but you won't face it alone. We surround students with advising, tutoring, mentoring, and career support designed specifically for engineers. From your first semester to graduation, these resources help you stay on track and succeed.

ACADEMIC ADVISING

Plan your degree, recover from probation, navigate special circumstances, and stay on track to graduate.

TUTORING & ACADEMIC SUPPORT

Get help with calculus, physics, and core engineering courses from experienced tutors.

MENTORING PROGRAMS

Peer mentors and support programs help you navigate your first year and beyond.

CAREER PREPARATION

Resume reviews, interview prep, internships, and career mentoring connect students with industry and opportunity.

STUDENT SUCCESS SPECIALIST

Dedicated staff who help with non-academic challenges, study skills and connect you with campus resources.

FIRST-YEAR TRANSITION SUPPORT

Programs like LYFE help students build study skills, time management, and confidence.

College scholarships and additional student support services are coordinated through the Engineering Opportunities Center.

1,000+

Tutoring Sessions Each Semester

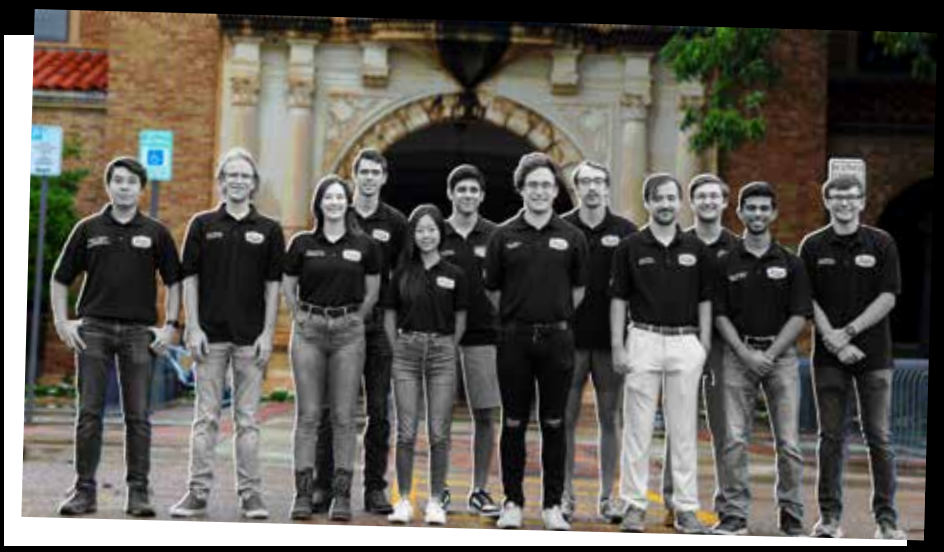
87%

First-Year Retention in 2024

LEARN MORE ABOUT STUDENT SERVICES

FIND YOUR COMMUNITY

Engineering students at Texas Tech build community through professional societies, competition teams, and leadership organizations.



30+
Engineering Student Organizations

1,500+
Students Involved In Clubs

20+
Competition & Design Teams

COLLEGE-WIDE ORGANIZATIONS

Students participate in organizations including:

- Engineering Ambassadors (EA)
- Engineering Diplomats
- Honor Societies & Professional Associations
- Leadership & Service Groups

DEPARTMENT ORGANIZATIONS

Each engineering department offers organizations including:

CHEMICAL
- American Institute of Chemical Engineers
- Codename: Raider
- The Electrochemical Society

CIVIL, ENVIRONMENTAL, & CONSTRUCTION
- American Society of Civil Engineers
- Society of Environmental Professionals

COMPUTER SCIENCE
- Association for Computing Machinery
- Google Developers Student Club

ELECTRICAL & COMPUTER
- Institute of Electrical & Electronics Engineers
- Institute of Electrical & Electronics Engineers - Women in Engineering

INDUSTRIAL
- Institute of Industrial and Systems Engineers
- Human Factors & Ergonomics Society

MECHANICAL & AEROSPACE
- American Society of Mechanical Engineers
- Red Raider Racing (Formula SAE)
- Raider Aerospace Society

PETROLEUM
- American Association of Drilling Engineers
- American Rock Mechanics Association
- Society of Petroleum Engineers

EXPLORE ALL STUDENT ORGANIZATIONS

EXPAND YOUR NEW HOMETOWN HORIZONS.

Lubbock

In-state prices. Out-of-state experiences. Maybe that's why some call Lubbock "The Hub City," because we have a lot of everything. Branch off Broadway for cafes, shopping and the whole city vibe. Take a hike at Dunbar Historical Lake Park, stargaze at Caprock Canyons or trek Palo Duro, America's second-largest canyon, just an hour and change away. Or soak up all that makes our city special. From city life to endless sunsets to rich cultures - it's all here and then some.

THE WORLD IS YOUR CLASSROOM

Global Experiences through the Whitacre College of Engineering allow students to explore the world while advancing their degree. From semester programs to internships abroad, students gain global perspective, build professional networks, and apply engineering knowledge across cultures.

120+

Programs in over 45 countries

$375K

Scholarships Awarded in 2025

SEMESTER STUDY

Spend a semester abroad while earning credit toward your engineering degree.

SUMMER ABROAD

Short-term international programs designed to expand your academic and cultural perspectives.

INTERNSHIP PROGRAMS

Gain professional experience abroad while applying engineering skills in global industries.

Engineering students explore destinations around the world, including Ireland, Spain, Japan, and Singapore, building global awareness and skills that prepare them for engineering careers anywhere.

DISCOVER AND APPRECIATE OTHER CULTURES

Explore Your Options

Choosing an engineering discipline is an exciting step toward shaping your future. At the Whitacre College of Engineering, students begin with a strong engineering foundation before diving deeper into specialized fields. Along the way, you'll gain hands-on experience through labs, research, design projects, and internships that prepare you to solve real-world challenges.

Majors

- **Aerospace Engineering**
- **Biological Systems Engineering**
  - Nutritional Science
  - Food & Bioprocess
  - Fiber & Biopolymer
  - Agricultural
- **Chemical Engineering**
- **Civil Engineering**
- **Computer Engineering**
- **Computer Science**
  - Cybersecurity
  - Data Science with AI & Machine Learning
  - Software Engineering
- **Construction Engineering**
- **Construction Engineering Technology**
- **Electrical Engineering**
- **Electrical Engineering Technology***
- **Environmental Engineering**
- **Industrial Engineering**
- **Mechanical Engineering**
- **Mechanical Engineering Technology**
- **Petroleum Engineering**
  - Certificate in Carbon Capture Utilization Storage

Minors

- **Aerospace Engineering**
- **Artificial Intelligence (AI)**
- **Bioengineering**
- **Chemical Engineering**
- **Civil Engineering**
  - Specialties in Environmental,
  - Structure, & Hydrology/Water
- **Computer Science**
- **Construction Engineering**
- **Electrical Engineering**
- **Industrial Engineering**
- **Mechanical Engineering**
- **Polymers & Materials Engineering**
- **Project Engineering**
- **Robotics**

**Pending final approval by the Texas Higher Education Coordinating Board (THECB)*

Majors & Minors


THE FU


ER
UTURE

AEROSPACE ENGINEERING

Aerospace engineering focuses on the design, development, testing, and operation of aircraft and spacecraft, providing students with foundational knowledge through coursework, projects, and hands-on learning opportunities.

CAREER PATHS

- Aerodynamic Engineer
- Propulsion Systems Engineer
- Avionics Engineer
- Structural/Design Engineer

AND MORE!

$101,000
Median Pay

**Salary data based on national averages from the U.S. Bureau of Labor Statistics (BLS).*

BIOLOGICAL SYSTEMS ENGINEERING

Biological Systems Engineering focuses on sustainable production, storage, and conversion of biomaterials into valuable products. Engineers develop renewable biofuels and technologies that support food systems and agriculture.

CAREER PATHS

- Biomedical Engineer
- Research & Development Engineer
- Systems Biology Scientist
- Clinical Engineer

AND MORE!

$106,000
Median Pay

**Salary data based on national averages from the U.S. Bureau of Labor Statistics (BLS).*

CHEMICAL ENGINEERING

Chemical engineers apply chemistry, physics, and engineering principles to design processes and equipment used in industries such as bioengineering, consumer products, food production, oil and gas, and semiconductors.

CAREER PATHS

- Process Engineer
- R&D Engineer
- Manufacturing Engineer
- Supply Chain Engineer

AND MORE!

$90,000
Median Pay

90%
Job placement

CIVIL ENGINEERING

Civil engineers plan, design, and oversee construction of infrastructure projects such as buildings, bridges, highways, airports, tunnels, and water systems that support communities and transportation.

CAREER PATHS

- City Engineer
- Geotechnical Engineer
- Transportation Engineer
- Structural Engineer

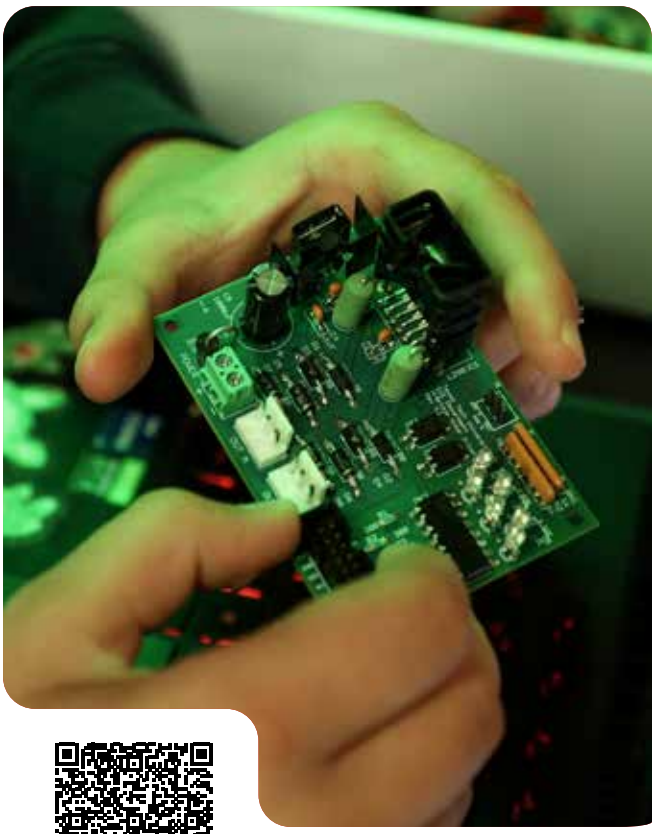
AND MORE!

$73,000
Median Pay

98%
Job placement

COMPUTER ENGINEERING

Computer engineers design and develop computer hardware, software, and integrated systems. They create processors, circuits, and supporting technologies while building and testing prototypes through modeling and simulation.



CAREER PATHS

- AI & Machine Learning Engineer
- Computer Design Engineer
- Embedded Systems Engineer
- Digital & Image Processing Engineer

AND MORE!

$106,000
Median Pay

94%
Job placement

COMPUTER SCIENCE

Computer science drives innovation across industries. Students design and develop software and hardware solutions while building skills in programming, problem-solving, communication, and engineering ethics.

CAREER PATHS

- Artificial Intelligence Engineer
- Business Analyst
- Chief Information Officer
- Chief Technology Officer

AND MORE!

$84,000
Median Pay

89%
Job placement

CONSTRUCTION ENGINEERING

Construction Engineering builds a strong foundation in science, engineering principles, and design. Students study structural systems, materials, surveying, safety, and construction management while gaining hands-on experience.

CAREER PATHS

- Construction LEED Engineer
- Construction Project Engineer
- Construction Engineer
- Construction Superintendent

AND MORE!

$75,000
Median Pay

100%
Job placement

CONSTRUCTION ENGINEERING TECHNOLOGY

Construction Engineering Technology prepares students to plan, manage, and execute construction projects. The program blends engineering principles with real-world construction practices and modern tools used across the industry.

CAREER PATHS

- Project Engineer
- Field Engineer
- Construction Manager
- Site Superintendent

AND MORE!

$64,000
Median Pay *

**Salary data based on national averages from the U.S. Bureau of Labor Statistics (BLS).*

ELECTRICAL ENGINEERING

Electrical engineers design and develop electrical systems and equipment for commercial, industrial, and scientific use. They create power systems and technologies that generate and distribute electricity, including renewable energy sources.

CAREER PATHS

- Biomedical Engineer
- Electronic Devices Engineer
- Embedded Systems Engineer
- Power Engineer

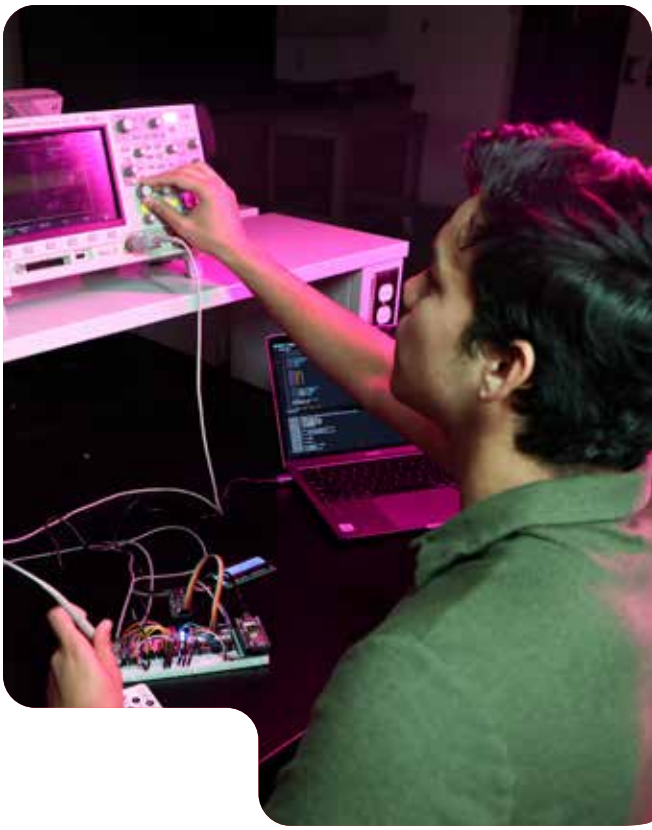
AND MORE!

$105,000
Median Pay

94%
Job placement

ELECTRICAL ENGINEERING TECHNOLOGY*

Electrical engineering technologists implement and maintain complex power and electronic systems. They apply engineering principles to design, test, and troubleshoot the technology used across industry.



CAREER PATHS

- Automation & Robotics Engineer
- Smart Grid Technologist
- Mission Critical Power Engineer
- Avionics Systems Specialist

AND MORE!

$77,000
Median Pay **

**Pending final approval by the Texas Higher Education Coordinating Board (THECB). Anticipated program launch: Fall 2027.*
***Salary data based on national averages from the U.S. Bureau of Labor Statistics (BLS).*

ENVIRONMENTAL ENGINEERING

Environmental engineers develop solutions to protect planetary health. Their work includes water and wastewater treatment, air pollution prevention, hazardous waste management, and sustainable waste disposal.

CAREER PATHS

- Air Pollution Control Engineer
- Environmental Scientist
- Risk Assessment Specialist
- Water Reuse Engineer

AND MORE!

$75,000
Median Pay

100%
Job placement

INDUSTRIAL ENGINEERING

Industrial engineers eliminate waste in production, service, and healthcare processes. They design efficient systems that integrate people, machines, materials, information, and energy to deliver products and services.

CAREER PATHS

- Manufacturing Engineer
- Industrial Safety and Health Engineer
- Operations Engineer
- Systems Engineer

AND MORE!

$82,000
Median Pay

89%
Job placement

MECHANICAL ENGINEERING

Mechanical engineers design and build mechanical systems such as power-producing machines, vehicles, electronics, and robotics. They play a critical role in industries that develop and manufacture engineering products.

CAREER PATHS

- Aerospace Engineer
- Automation and Robotic Engineer
- Automotive Engineer
- Energy and Power Engineer

AND MORE!

$96,000
Median Pay

91%
Job placement

MECHANICAL ENGINEERING TECHNOLOGY

Mechanical engineering technologists use advanced manufacturing to design, build, and improve products. They apply modern fabrication and automation to bring engineered concepts to the real world.

CAREER PATHS

- Additive Manufacturing Specialist
- Robotics & Automation Integrator
- Automotive Performance Technologist
- Mechatronics Specialist

AND MORE!

$68,000
Median Pay

**Salary data based on national averages from the U.S. Bureau of Labor Statistics (BLS).*

PETROLEUM ENGINEERING

Petroleum engineers design and oversee drilling and completion of wells for oil and gas production, carbon storage, and geothermal energy. They develop technologies to locate subsurface resources.

CAREER PATHS

- Completions Engineer
- Drilling Engineer
- Geothermal Engineering
- Production Engineer

AND MORE!

$103,000
Median Pay

88%
Job placement

Minors

ARTIFICIAL INTELLIGENCE

Artificial intelligence is a rapidly evolving and highly sought-after field that focuses on the design, development, and application of intelligent systems and algorithms. This minor creates the opportunity for students to achieve a basic level of understanding in this field across several courses and applied experiences.

20
Hours To Completion

BIO ENGINEERING

Bioengineering is an interdisciplinary and innovative field that applies principles of biology, chemistry, and engineering to solve challenges in healthcare and biotechnology. This minor creates the opportunity for students to achieve a basic level of understanding in this field across several courses and laboratory-based experiences.

21
Hours To Completion

POLYMERS & MATERIALS ENGINEERING

Polymers and materials science is an interdisciplinary field that focuses on the properties, processing, and application of materials used in industries such as electronics, plastics, and advanced manufacturing. This minor creates the opportunity for students to achieve a basic level of understanding in this field across several courses and real-world applications.

18
Hours To Completion

PROJECT ENGINEERING

Project engineering is a practical and in-demand field that focuses on planning, coordinating, and managing technical engineering initiatives from concept to completion. This minor creates the opportunity for students to achieve a basic level of understanding in this field across several courses and real-world applications.

18
Hours To Completion

ROBOTICS

Robotics is an interdisciplinary field that integrates mechanical design, electronics, and intelligent control to develop autonomous and assistive systems. This minor provides students with core knowledge and hands-on experience in robotics, preparing them for careers in industries such as manufacturing, healthcare, automation, and autonomous systems.

18
Hours To Completion

Admissions

When it comes to cost and financial support, you're never on your own. Every student has a dedicated financial advisor to help answer questions and guide you and your family through one-on-one sessions, in-person or virtually. Your assigned advisor is based on your last name. **financialaid.ttu.edu/myadvisor**

84%
OF STUDENTS RECEIVE AID -FALL 2024

$8,618
AVERAGE AMOUNT OF UNDERGRADUATE GRANTS, SCHOLARSHIPS -FALL 2024

$320M
IN SCHOLARSHIPS & GRANTS -FALL 2024

$13,198
AVERAGE AMOUNT OF AID -FALL 2024

Red Raider Guarantee

If you're a resident of Texas and your family's adjusted gross income is $80,000 or less, you may qualify for this program which guarantees tuition and mandatory fees through a combination of federal, state and institutional funds. To qualify, students must be an incoming freshmen or transfer student with an associate's degree and be enrolled full time. Learn more at **financialaid.ttu.edu/guarantee**.

Military-Friendly

We are proud to serve those who served. The Military and Veterans Program (MVP) provides students assistance with the financial aid (GI Bill and Hazlewood Act) application process, registering for classes and throughout each student's college career. **mvp.ttu.edu**

Non-resident Students

You could qualify for Texas resident tuition and fees when awarded at least $1,000 in competitive scholarships from Texas Tech per academic year.

ESTIMATED COSTS

	TX and Border Counties in NM/OK	Residents of NM/OK	Non-Resident
Tuition/Fees	$11,852	$12,752	$24,451
Housing & Meals	$11,355	$11,355	$11,355
Books/Supplies	$1,200	$1,200	$1,200
Transportation	$2,731	$2,731	$2,731
Personal/Misc.	$2,000	$2,000	$2,000
Year Total	**$29,138**	**$30,038**	**$41,737**

Learn More About Cost

Visit our website for a complete breakdown of cost by student type including graduate or international students.
financialaid.ttu.edu/cost

SCHOLARSHIPS

Scholarships can help make your Texas Tech engineering experience even more attainable. The Edward E. Whitacre Jr. College of Engineering offers scholarship opportunities for incoming and current students based on academic achievement, leadership, and other criteria.

Explore Scholarships

FRESHMEN REQUIREMENTS

Your dedicated admissions counselor is ready to support you throughout the application process. Schedule and appointment **today. admissions.ttu.edu/staff**

Application Checklist

These Steps are required for admissions consideration:

- ☐ Applications for admission are available at **applytexas.org** or **commonapp.org**. Texas Tech does not have a preference for one type of application over another, but only submit one per admissions cycle.
- ☐ $75 application fee or fee waiver*
- ☐ Official transcripts (high school and/or college)
- ☐ Official SAT and/or ACT scores (Optional)

Learn more at **admissions.ttu.edu/testoptional**

SAT code: 6827 / ACT code: 4220
Notification of decision takes 2-4 weeks.
*Fee waiver program for domestic students only.
admissions.ttu.edu/appfee

Additional Checklist Items for International Students

- ☐ Submit official transcripts or any foreign credentials (English translation)
- ☐ Proof of English Proficiency
- ☐ New First Time Student Acknowledgment Form

TRANSFER REQUIREMENTS

Plan your classes to transfer to Texas Tech by contacting our transfer advising team to receive pre-transfer **admissions.ttu.edu/advising**

Transfer Application Checklist

These Steps are required for transferring:

- ☐ Applications for admission are available at **applytexas.org** or **commonapp.org**. Texas Tech does not have a preference for one type of application over another, but only submit one per admissions cycle.
- ☐ $75 application fee or fee waiver*
- ☐ Official transcripts from all colleges attended. Students must submit a high school/secondary transcript if fewer than 12 transferable hours.

Notification of decision takes 2-4 weeks.
*Fee waiver program for domestic students only.
admissions.ttu.edu/appfee

Application Review

Students who do not submit ACT and/or SAT scores on their application or do not meet assured admission will be evaluated holistically. Transfer students who do not meet assured admission but have at least a 2.0 cumulative GPA are evaluated holistically.

- Academic course selection*
- Extracurricular activities
- Leadership Experiences
- Civic or other service activities
- Socioeconomic background
- Family educational background
- Special talents or awards
- Unique experiences and background

We strongly encourage essays from the admissions application and up to three letters of recommendation.
*Academic course selection for freshmen include Honors, AP, Pre-AP, Dual Credit, and IB.

Assured Admit Status

View assured admission criteria based on class rank and test scores, along with required application materials and review process.

Check Your Status

Check your application status and get all the latest updates by creating your RaiderConnect account at **raiderconnect.ttu.edu**

START YOUR JOURNEY AT THE WHITACRE COLLEGE OF ENGINEERING

EDWARD E. WHITACRE JR. COLLEGE OF ENGINEERING

806.742.3451
902 Boston Ave
Lubbock, TX 79409

SUBMIT YOUR APPLICATION

Texas Tech University is accredited with the Southern Association of Colleges and Schools Commission on Colleges.

Receive more information about Texas Tech University and the admissions process. Get notified about special events.

Admissions
gototexastech.com
806.742.1480

Engineering Opportunities Center
depts.ttu.edu/coe/eoc/index
info.coe@ttu.edu
806.742.3451

Financial Aid & Scholarships
financialaid.ttu.edu
806.742.3681

Hospitality Services
hospitality.ttu.edu
806.742.1360

University Student Housing
housing.ttu.edu
806.742.2661

Military & Veterans Program
mvp.ttu.edu
806.742.6877

Orientations Services
orientation.ttu.edu
806.742.2993

Student Business Services
sbs.ttu.edu
806.742.3272

Student Disability Services
depts.ttu.edu/sds
806.742.4837

Student Health Services
depts.ttu.edu/studenthealth
806.742.2848

Transfer Evaluation Office
reg.ttu.edu/teo
806.742.3661

Texas Success Initiative
reg.ttu.edu/tsi
806.742.3242

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Our fully online programs are designed to fit seamlessly into your schedule, whether you have a job, family, or other responsibilities.


TEXAS TECH™