BACHELOR OF SCIENCE

ELECTRICAL ENGINEERING

Harnessing Power Through Innovation

ELECTRICAL ENGINEERS DESIGN THE DEVICES THAT HARNESS THE POWER OF ELECTRICITY.

They build things as large as regional power grids or as small as the microchip in your coffee machine. The Texas Tech bachelor’s degree in electrical engineering will prepare you to use some of the world’s most complex technologies. As a graduate, you will be ready for a career in sectors like telecommunications, computer engineering, or sustainable energy.

ELECTRICAL ENGINEERS BECOME EXPERTS IN

TELECOMMUNICATIONS. They put the world in your smartphone, designing the devices that connect you through the web with everything.

ROBOTICS AND AUTOMATIC CONTROL. At the cutting edge of developing self-operated machines, they integrate artificial intelligence into robots, self-driving vehicles and airborne drones.

SUSTAINABLE POWER. They are at the forefront of designing a sustainable future, building the machines that efficiently generate and distribute solar, wind, and hydraulic energy.

SIGNAL PROCESSING. They design the tools that transmit sounds and images through electric signals, making possible all contemporary science, medicine, entertainment, and commerce.

COMPUTER ENGINEERING. Working closely with computer scientists, they build the hardware for the world’s computing systems.

depts.ttu.edu/costarica/electricalengineering.php
DESIGN AND BUILD TOMORROW’S TECHNOLOGIES

The Texas Tech electrical engineering program immerses you in the disciplines, knowledge networks, and technologies you need to launch your global career. As a student in Texas Tech’s Whitacre College of Engineering, you have access to world-class faculty and industry leaders that are shaping tomorrow. In our state-of-the-art classrooms and laboratories at Avenida Escazú, you are mentored by Ph.D.-qualified faculty who have a special commitment to helping you, as an individual, to master the knowledge you need in order to be globally competitive and succeed.

HANDS-ON EDUCATION FOR JOBS OF THE FUTURE

Texas Tech’s electrical engineering program provides a cutting-edge understanding of electrical engineering as a discipline and as a profession. In addition to developing your technical knowledge, the Texas Tech-Costa Rica experience prepares you with the soft skills that will help you stand out and lead.

First-Year Experience

As a first-year student, you explore the relationship between electrical engineering and the other engineering disciplines. In addition to classes in English, math, chemistry, and physics, you will take courses that introduce you to trends currently shaping all engineering fields:

- bio-inspired design
- data science
- engineering and society

The first-year seminar clarifies the differences among engineering disciplines, helping you experience how electrical engineers work as part of larger creative teams.

Becoming a Professional in the Project Labs

The senior year culminates in a design project in which your team tackles a real-world problem. Recent senior projects have included inventing new kinds of solar-powered lighting, using radar to monitor human health, and integrating machine learning algorithms into circuit design.

While solving real problems, students cultivate skills that make them highly employable in the globally competitive job market. They emerge as confident, competent engineers.