"Studying electrical engineering at K-State opened my eyes to the cutting-edge world of new and exciting technology — just where I wanted to be!"

— James Broyles, electrical engineering student
Electrical engineering focuses on the foundations of circuit theory, electronics and electromagnetics. Electrical engineers design, develop, test and supervise complex electronic circuits. These circuits carry out specific tasks such as wireless communications, audio amplifiers, processors, bioinstrumentation, control systems, power electronics devices, renewable energy systems and smart power distribution.

AREAS OF SPECIALIZATION

**BIOENGINEERING**
Bioengineering focuses on challenges faced by the health care and life science communities. The area targets development of hardware and software for the acquisition, analysis and presentation of biomedical data, as well as mathematical and computational tools for the simulation and analysis of biological systems.

**ELECTRONICS AND COMMUNICATIONS**
This area involves the technologies underlying electronic and communication devices used in daily life, and will prepare graduates to design and build hardware to make new products of the future possible.

**POWER SYSTEMS**
Students specializing in power systems obtain the skills required to design power devices and systems, which range from power electronics in portable electronic devices to the generation, conversion, transmission and distribution of electrical energy in a safe, reliable, economical, clean and sustainable manner.

**KEY ACADEMIC AREAS**

- **MATH AND SCIENCE COURSES**
  - Math/Physics
  - Biology/Chemistry

- **ENGINEERING DESIGN/TechNICAL COURSES**
  - Chemical Processes
  - Mechanics/Design
  - Electronics/Electricity
  - Computer Programming
  - Technical Electives

*General education electives not included
CONNECT THE WORLD

Electrical engineers design electrical systems of automobiles, aircraft and many other complex systems. Electrical engineers improve the world by —

• connecting people across the world through wireless communication.
• creating renewable energy systems to distribute safe, reliable, economical, clean and sustainable electrical energy.
• developing smart grid power systems for more efficient transmission of electricity.
• advancing health care through improved hardware and software for acquisition, analysis and presentation of biomedical data.
**UNDERGRADUATE RESEARCH**

Numerous research opportunities in electrical engineering exist such as electronics, renewable energy, power systems, wireless communications, and medical devices for human and animal health.

**CREATIVE INQUIRY DESIGN TEAMS**

**ROBOTICS COMPETITION TEAM (RCT)**
The RCT provides a venue for creative, inventive and industrious students to participate in robotic competitions against other universities or teams.

**WILDCAT WIND POWER**
The K-State Wildcat Wind Power Team designs, builds and tests a small-scale wind turbine for the biannual Collegiate Wind Competition.

**STUDENT ORGANIZATIONS**

**ELECTRONICS DESIGN CLUB (E-CLUB)**
E-Club focuses on development and application of real-world electronic and computer systems through student-driven projects.

**INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)**
IEEE is a professional society that focuses on professional development, and the dissemination of knowledge of theory and practice of all aspects of electrical and computer engineering.
CAREERS

Electrical engineers have wide flexibility in their career options, with the ability to do hardware and system design across many different platforms. Electrical engineers work in fields such as wireless communications, biological instrumentation, power electronics devices, renewable energy systems and smart power distribution. Electrical engineers also design electrical systems of automobiles, aircraft and many other complex systems.

Electrical engineering graduates pursue careers as —
- electronics engineers
- project engineers
- power engineers
- controls engineers
- consultants
- hardware engineers
- quality engineers
- applications engineers
- RF engineers

$62,940

is the average starting salary for a K-State electrical engineering graduate.

INTERNSHIPS

Electrical engineering students have many internships and co-ops available to them. Some opportunities are local, while many more are in the greater Midwest and throughout the U.S.
K-STATE ELECTRICAL ENGINEERING ALUMNI LIVE IN...

“My K-State education gave me the head start I needed when beginning my career as an electrical engineer designing consumer electronics.”

— Joe Schrick ’98, electrical engineering

49 STATES AND 51 COUNTRIES!

NUMBER OF ALUMNI: 50+ 1-49 0
Program Accreditation
The Bachelor of Science in electrical engineering is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org.

Notice of Nondiscrimination
Kansas State University is committed to nondiscrimination in admissions, programs and employment. Inquiries and complaints: Contact Director of Institutional Equity, Kansas State University, 103 Edwards Hall, Manhattan, KS 66506-4801, (Phone) 785-532-6220; (TTY) 785-532-4807.