

Electrical Engineering focuses on the study and application of electricity, electronics, and electromagnetism. This field involves designing, developing, and maintaining electrical systems and components, ranging from small-scale electronics to large power grids.

COMMON JOB TITLES * additional education or certification required post graduation

ENTRY & MID LEVEL POSITIONS

Circuit Design Engineer Controls Systems Specialist Electrical Distribution Engineer* **Electrical Drafter** Hardware Engineer Robotics Engineer*

Electrical Power Systems Engineer* Instrumentation Designer Network Security Specialist **Project Engineer** Systems Engineer Telecommunications Engineer

AREAS OF EMPLOYMENT: WHERE DO ELECTRICAL ENGINEERING MAJORS TYPICALLY WORK?

Automotive Companies: Peterbilt Motors, Tesla, Inc., Ford Motor Company

Steel Businesses: Nucor Steel, Tenaska, Valmont

Telecommunications Companies: Allo, Cox Communications, Lumen

Consumer Electronics: LG Electronics, Sony

Government: NE Dept. of Transportation, NE Public Power District, **Aerospace & Defense**: Northrop Grumman, NASA, Dept. of Defense Computer/Tech Companies: HP Inc., Google, Dell

Energy & Power Businesses: Aurora Cooperative, NextEra Energy Resource

Research Institutions: NE Engineering Innovation Center, PKI

Utility Companies: OPPD, MUD, Black Hills Energy

Medical Companies: Omaha Scientific Inc., Celerion, NAMSA

Robotics: Omaha Automation Inc., Kawasaki, Molex

IMPORTANT QUALITIES:

Transferable Skills Gained:

Creativity **Analytical Skills** Communication Skills Teamwork & Collaboration Critical Thinking **Problem Solving Skills**

Concrete Skills Gained:

MATLAB Python C/C++AutoCAD Electrical Altium Designer

HOW TO DEVELOP YOUR SKILLS:

Get involved in an **ECE Student Organization** to learn more about the field, connect with other students, and participate in the community

Explore **ECE Research Opportunities** to collaborate with faculty and pursue your interests

Join **NESCO** to further advance your leadership skills, professionalism, and your future career goals



WHAT CAN I DO WITH MY MAJOR? ELECTRICAL ENGINEERING

MAJOR + MINOR SPECIALIZATION: HOW CAN I SPECIALIZE IN SOMETHING BEFORE I GRADUATE?

* additional education or certification required post graduation

<u>Electrical Engineering</u> + <u>Engineering Leadership minor</u> = <u>Project Engineer/Systems Engineer</u>

Electrical Engineering + Robotics Engineering minor = Robotics Engineer

<u>Electrical Engineering</u> + <u>Environmental Engineering minor</u> = <u>Electrical Power Systems Engineer</u>

OCCUPATIONAL OUTLOOK:

<u>Electrical & Electronics Engineers</u> Environmental Engineers

EMPLOYMENT OPPORTUNITIES:

Check out daily job postings on **Handshake** related to accounting jobs, internships, and opportunities to boost your student experience

ADDITIONAL EDUCATION:

Graduate School

Getting a **Masters Degree** or **Doctoral Degree** could be beneficial depending on your career goals or desired area of study, as these advanced degrees can provide deeper specialization, research opportunities, and eligibility for higher-level positions in academia, research, or specialized engineering fields

More Information:

UNL Engineering Graduate Degree Programs

Licensure

The **Fundamentals of Engineering (FE exam)** is an exam that is required to pass before achieving licensure as a professional engineer (P.E.), targeting recent graduates and those nearing completion of their undergraduate engineering studies. More information here: **FE Exam**

To become a licensed Professional Engineer (PE), one must pass the **Principles and Practice of Engineering Exam (PE)**. To learn more about this exam and the licensure process, please visit the **National Council of Examiners for Engineering and Surveying (NCEES**)

OTHER RESOURCES:

UNL College of Engineering

Career Exploration in Career Services

U.S. Bureau of Labor Statistics: Occupational Outlook Handbook

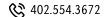
NEED SOME EXTRA HELP?

Book an appointment with <u>Career Services</u> Book an appointment with your Advisor

Career Services



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