



OVERVIEW

Electrical engineers design, develop, test and supervise the manufacturing of electrical and electronic equipment. Some of this equipment includes power generating, controlling, and transmission devices used by electric utilities and electric motors, machinery controls, lighting and wiring in buildings, automobiles, aircraft, radar and navigation systems, and broadcast and communications systems.

Computer engineers are involved with digital technologies such as computer hardware and the development of more efficient circuitry on silicon computer chips. They research, design, develop, and test computer hardware and supervise its manufacturing and installation. Computer software engineers often work as part of a team that designs new hardware, software and systems. As a computer engineering student at Northeastern you will study computer architecture, software engineering, computer-aided design (VLSI), microprocessor-based design, and applied algorithms.

Concentrations: Aerospace and Control Systems, Analog Microelectronics, Biomedical Engineering, Communications and Signal Analyst, Computer Engineering, Power Systems Engineering, RF Circuits and Microwaves

Department website: <http://www.ece.neu.edu/ece/>

SAMPLE JOB TITLES

Applications Engineer	Microelectronics Engineer
Circuits Engineer	Mobile Gaming iOS Developer
Computer Engineer	Outside Plant Engineer
Control Systems Engineer	Plasma Engineer Product Sustaining Engineer
Electrical Engineer	Product /Test Develop. Engineer
Electronics Design Engineer	Programmer Analyst
Financial Application Engineer	Robotics Engineer
Interfaces Support Engineer*	Software Engineer
Intermediate Web Developer	Trans. & Protection Engineer

Positions that require additional education or training are indicated by a ().*

Job qualifications are based not only on degree program, but on skills and experience. Students should seek out as many experiential opportunities in their fields of interest as possible, including Co-op and internships.

TYPES OF EMPLOYERS

Aeronautical/Aerospace
Automotive
Chemical and petrochemical
Computer Industries
Construction
Consumer Products
Electric Utilities
Environmental
Federal Government
Food & Beverage

Gaming Industry
Glass, Ceramics and Metals
Mining and Metals
Oceanography
Oceanography
Public Utilities
Pulp and Paper
Textiles
Transportation
Water and Waste Water

INTERNSHIPS

These sample titles can be used to research internship opportunities in the field.

Materials Research
Electrical and Computing
Hydro/Electric/Plug-in Vehicles
Wind, Energy Science, Energy Policy

To search for internship opportunities, login to [Husky Career Link](#), Career Services' online job and internship bank for opportunities with employers seeking to hire NU students.

CO-OPS

For more information, please visit the department's website.

Students enrolled in the *College of Professional Studies* may click [here](#) for co-op and internship information.

CAREER EXPLORATION & JOB POSTINGS

The following resources include various websites and campus resources that will aid you in exploring this career field and industry.

CAREER & JOB WEBSITES

[MassCIS – Massachusetts Information System](#)

[Bureau of Labor Statistics – Occupational Outlook Handbook](#)

[Vocational Biographies](#) (username: NE Univ; password: RAZDE)

[O*NET OnLine](#)

[Job Central](#)

[Engineer Jobs](#)

[Internet Engineering Center](#)

[Dice.com](#)

[Engineers International](#)

CAMPUS ORGANIZATIONS & ACTIVITIES

[Engineers without Borders](#)

[Mini Baja](#)

[FIRST](#)

[Society of Women Engineers](#)

[Society of Hispanic Professional Engineers](#)

[Tau Beta Pi: Engineering honor Society](#)

[Black Engineering Student Society](#)

[Nu-Trons/First](#)

**For additional student organizations click [here](#).*

**For additional student activities click [here](#).*

PROFESSIONAL ASSOCIATIONS

Find valuable industry information, job sites, and professionals in the field you may contact for informational interview requests and networking opportunities.

[Institute of Electrical & Electronics Engineers - IEEE](#)

[Society of Hispanic Professional Engineers](#)

[Society of Women Engineers – SWE](#)

[Engineers Without Borders – EWB](#)

[National Society of Black Engineers](#)

[Association for Computing Machinery](#)

SOCIAL MEDIA

Sample LinkedIn.com Groups providing resources such as industry trends, company information, job listings, and networking opportunities within the field:

[Institute of Electrical & Electronics Engineers – IEEE](#)

[Electrical/Electronics and Computer Development Engineers Group](#)

[Electronic Hardware Designers](#)

[Computer Industry Thermal Engineers](#)