

# ELECTRICAL ENGINEERING, B.S. (ENGINEERING)

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**Begin Campus:** Any Penn State Campus

**End Campus:** University Park

## Career Paths

### CAREERS

An electrical engineer is responsible for designing and integrating electronic/electrical systems in diverse industries such as defense, communications, transportation, manufacturing, healthcare, construction, power/energy, and entertainment. Some graduates work as design engineers in research labs where they help design state-of-the-art electronic circuits, devices, and systems. Others work in a manufacturing environment where they help improve the manufacturing of existing products. Still others may work in post-production jobs where they deal with technical sales, field testing, or trouble shooting. Some graduates even serve as consultants who are hired by companies to help solve their technical problems.

Some examples of career opportunities include: circuit design for consumer electronics; design of power systems and industrial automation for manufacturing; design of communications systems; signal processing software and hardware development for audio and video applications; image processing and computer vision for medical imaging; software design and algorithm development for artificial intelligence, cyber security, and other big data analytics.

The average entry-level salary for electrical engineers is \$73,000.

MORE INFORMATION ABOUT POTENTIAL CAREER OPTIONS FOR GRADUATES OF THE ELECTRICAL ENGINEERING PROGRAM (<http://www.eecs.psu.edu/students/undergraduate/EECS-Students-Undergrad-EE-Specialization.aspx>)

### Opportunities for Graduate Studies

A graduate degree can broaden your educational credentials and improve your marketability in the global workplace. Students who graduate with a Bachelor of Science Degree in Electrical Engineering are well-prepared to continue their technical education with a Master's or PhD degree in electrical engineering or related fields such as physics or computer science and engineering. These technical graduate degrees prepare students for employment in research labs or higher education.

Penn State offers M.S. and Ph.D. degrees in Electrical Engineering and in Computer Science and Engineering. All of these graduate programs are highly recognized for producing graduates with strong academic credentials who can perform both theoretical and experimental research.

In addition to traditional technical degrees, some of our graduates opt to get professional degrees in medicine, law or business administration so that they can pursue careers in fields such as medical imaging, patent law, and engineering management.

MORE INFORMATION ABOUT OPPORTUNITIES FOR GRADUATE STUDIES (<http://www.eecs.psu.edu/students/graduate/EECS-How-to-apply-EE.aspx>)

### Professional Resources

- Penn State IEEE (<http://sites.psu.edu/psuieee/>)
- Eta Kappa Nu (<http://sites.psu.edu/hkneecs/>)
- Association of Women in Computing (<http://awc.cse.psu.edu/>)
- Penn State SPIE/OSA (<http://spie.ee.psu.edu/about.html>)
- Association for Computing Machinery (<https://acm.psu.edu/>)