What can I do with my Major?

ELECTRICAL ENGINEERING

OVERVIEW OF MAJOR

Electrical engineering is the study of the laws of electrical energy and the principles of engineering in order to apply them to the generation, transmission, and use of electricity. With knowledge of electrical phenomena and technology, those trained in electrical engineering can design everything from power generating systems in dams to tiny electronic circuits for spacecraft, as well as electronic components that run computers, televisions, stereo systems, and automated factories. Four well-recognized branches of electrical engineering in which individuals may concentrate include power, communications, electronics, and control systems. Other areas recognized by the Institute of Electronics and Electrical Engineers for career possibilities include circuits and devices, industrial applications, electromagnetics and radiation, computers, engineering and the human environment, and signals and applications.

NATURE OF WORK

Electrical and electronics engineers design, develop, test, and supervise the manufacture of electrical and electronic equipment. Some of this equipment includes power-generating, controlling, and transmission devices used by electrical utilities, as well as lighting and wiring in buildings, automobiles, aircraft, radar and navigation systems, computer and office equipment, and broadcast and communications systems. Electrical and electronics engineers specialize in different areas, such as power generation, transmission, and distribution, communications, computer electronics, and electrical equipment manufacturing. Electrical engineers design new products, develop maintenance schedules, test equipment, solve operating problems, and estimate the time and cost of engineering projects.

SAMPLE JOB TITLES

Visit O*Net and conduct an Occupation Quick Search of each job title to learn more about that career path.

Electrical Engineer
Electrical and Electronics Repairers
Electronics Engineer, Excluding Computer
Electrical Drafter
Electrical Engineering Technologist
Electrical Power-Line workers
Electrical and Electronic Engineering Technicians
Electrical and Electronic Equipment Assemblers
Engineering Teacher, Postsecondary
Electromechanical Engineering Technologist
Power Electronics Engineer
Instrumentation Engineer
Hardware Engineer
Software Engineer
Product Manager
Electronic Drafter
Control Research and Development Engineers
Network Design Engineer
Circuit Design Engineer
Systems Engineer
Electromagnetic Engineer
Laser Technology Engineer
Advertisement Representative
Social-Urban Planner
Employee Assistance Plan Coordinator

OTHER RESOURCES

Institute for Electrical and Electronics Engineering