

Alfred University

McComsey Career Development Center

CAREERS IN...ELECTRICAL ENGINEERING

The Industry

Electrical Engineering is the largest and most diverse field of engineering today. Areas covered at AU include electronic information processing and communications, semiconducting devices, superconducting devices, computer systems, electronic instrumentation, power and machinery, control systems and signal systems and analysis. Electrical Engineering students can easily obtain a minor in Math. Employment can be found in several areas:

- Electronic and solid state circuitry: information systems, instrumentation and controls, communication systems; even automotive and consumer products
- Communication systems: radio, television, telephone, or satellite, microwave or fiber optics systems
- Computers and automatic controls: design and development of hardware and software related to industrial plants, banks, and other businesses
- Instrumentation and measurement: measure environmental parameters such as vibration, temperature, voltage, mass and radiation
- Power generation, transmission, distribution and use: may work on innovative energy conversion by solar, fuel cell, wind generation or other alternative sources
- Optoelectronics and high temperature superconductivity: for wide-band communication systems and information processing

Sample Job Titles

- Aircraft electronics engineer
- Power distribution engineer
- Electronics engineer
- Communications engineer
- Technical writer
- Radar engineer
- Marine electronics specialist
- Consultant
- Technical illustrator
- Photo-optics technician
- Civil engineer
- Aeronautical engineer
- Control engineer
- Physicist
- Environmental engineer

Our Graduates...Where Are They Now?

Within the past few years, graduates have obtained employment as:

Software Engineer – MicroTools, Inc.
Electronic Ceramic Technician – Alfred University
Applications Engineer – KOA Speer Electronics, Inc.
Applications Engineer/Photonic Technician – Corning, Inc.
Associate Engineer – IBM
Controls & Systems Engineer – Dresser Rand
Controls Engineer – Cardinal Float Glass
Customer Service Engineer – Boston Edison
Customer Support Engineer – Agee Associates
Design Engineer – Hillers Electrical Engineering, Inc.

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Design Engineer – Morrison Knudsen
Electrical Controls Design Engineer – Liberty Precision Industries
Electrical Engineer – Raytheon
Electronics Engineer – Tyco Healthcare
Electronics Technician – Scott Alarm
Engineer, Aerospace Division – Northrop Grumman
Entry Engineer – Phillips Lighting
Manufacturing Engineer – ITT Automotive
Photonics Engineer – Corning, Inc.
Process Engineer – Corning, Inc.
Programmer – IQ Designs
Project Engineer – Guardian Industries

...and have attended graduate school at:

Rochester Institute of Technology (Microelectronic Engineering)
Alfred University (Electrical Engineering, MBA)
Cornell University (Electrical Engineering)
Montana State University (Electrical Engineering)
Rensselaer Polytechnic Institute (Electric Power Engineering)
University of Rochester (Biomedical Ultrasound)
University of Vermont (Electrical Engineering)

Alumni who graduated several years ago are currently employed as:

Power PC Qualification Engineer – IBM
Systems Engineer – Lockheed Martin

Get Experience on Campus

Although internships and co-ops are considered the best preparation for an engineering job search, you can get a head start by gaining experience on campus.

- Become a laboratory or teaching assistant, or a tutor
- Get involved in undergraduate research with a faculty member or a graduate student
- Get a job as a Student Technical Assistant (STA) with Information Technology Services
- Join a student organization as their technician, such as Performing Arts, AUTV, WALF radio, etc.
- Consider joining AU's chapters of national organizations such as IEEE (Institute of Electrical and Electronics Engineers), AITP (Association of Information Technology Professionals), or SWE (Society of Women Engineers)

Where to go from here?

- Individual career counseling for anything from choosing a major to getting a job
- Saxon JobLink web services (www.alfred.edu/cdc) to view jobs and internships, post a resume and more
- Saxon Career Volunteer network – speak to alumni in your career field
- Choices CT computerized program for searching graduate schools
- Web resources: www.engineeringjobs.com, www.graduatingengineer.com, or ask us at the CDC for more recommendations.