

ELECTRICAL ENGINEERING



Electrical Engineering at Drexel

New developments in science and engineering have placed us in the center of a revolution in technology and education. Drexel at BCC's major in Electrical Engineering emphasizes computer-aided design and hands-on laboratory experience to prepare you to meet the technical challenges of the global economy.

Our interdisciplinary program offers a broad foundation in electronics and electrical systems, electromagnetic radiation and microwaves, electric power generation and distribution, signal processing, computer hardware and software, and communications, giving you the knowledge you'll need to work closely with experts in a wide variety of fields.

Drexel Co-op for Electrical Engineering

Drexel's prestigious co-operative education program, in which students alternate between periods of classroom study and periods of professional work experience, is a key part of the major. Electrical Engineering majors participate in one six-month co-op period of full-time employment.

A Few Drexel Co-op Position Titles

- Control Systems Engineer
- Designer/Drafter
- Operations Support Engineer
- Software Developer

Employers

Companies that have hired Drexel students include:

- Comcast Corporation
- Lockheed Martin
- PPL Corporation
- SAP America

Potential Careers

Electrical Engineer. Designs, develops, tests, and supervises the manufacture of electrical equipment, including electric motors, lighting and wiring in buildings, radar and navigation systems, and power-generating devices used by electric utilities. Usually specializes in areas such as electrical equipment manufacturing or power systems engineering.

Electronics Engineer. Designs, develops, tests, and supervises the manufacture of electronic equipment such as broadcast and communications systems. Works on technologies ranging from portable music players to robots. May work in areas closely related to computers.

Financial Engineer. Applies mathematical models of financial investing, risk management, and other financial problems.

Courses You'll Really Enjoy

Electric Circuits. Covers basic electric circuit concepts and laws, circuit theorems, mesh and node methods, analysis of first- and second-order electric circuits, force and natural response, sinusoidal steady state analysis, and complex frequency.

Electric Motor Control Principles. Introduces machinery principles, magnetic circuits, three-phase circuits, the electrical and economic structure of the power industry, AC and DC machine fundamentals, and power electronic converters and their interfaces with electric motors.

Electrical and Computer Engineering Laboratory. Offers laboratory experience using both modeling software and digital and analog hardware relevant to both electrical and computer engineers. Multiweek design projects and design teams are used to prepare students for Senior Design work.

Wireless, Mobile, and Cellular Communication. Covers the concepts of wireless systems; propagation effects, including loss, dispersion, fading, transmission, and reception; mobile systems, including design of base units and mobile units; micro cells and pico cells; cell division, including frequency use and reuse; concepts of FDMA, TDMA, and CDMA; error rates and outage probability; and circuits and components for wireless and mobile systems.

For More Information

Jamie Bruno-Brooks
Director of Academic and Administrative Services
Drexel at BCC
Technology and Engineering Center
Burlington County College
3331 Route 38
Mt. Laurel, NJ 08054
1-866-644-3795
856-778-7456 (fax)
bccenroll@drexel.edu

www.drexelatbcc.org