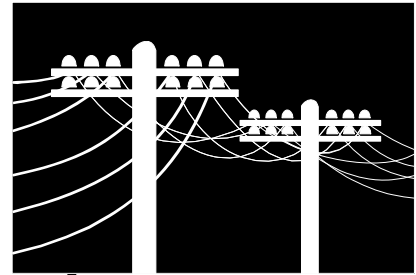


Honolulu Community College

University of Hawaii

874 Dillingham Blvd. Honolulu, Hawaii 96817

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ELECTRICAL INSTALLATION and MAINTENANCE TECHNOLOGY

PROGRAM DESCRIPTION: A program that teaches students the fundamentals of electricity and wiring of simple circuits, then progresses to residential interior wiring and the wiring of more complex circuits and equipment. Emphasis is placed on wiring in accordance with provisions of the National Electrical Code. The program combines theory with laboratory activities.

- **DEGREES OFFERED:** Certificate of Achievement, Associate in Applied Science
- **RECOMMENDED PREPARATION:** High school algebra, blueprint reading, and physics
- **COST:** Books and Tools - approximately \$250
- **TECHNICAL STANDARDS:** Can be found at <http://tech.honolulu.hawaii.edu/eimt>

THE OCCUPATION

DESCRIPTION: Electricians install wiring and maintain electrical equipment such as generators and lighting systems. They may specialize in construction or maintenance. Construction electricians assemble, wire, and install electrical systems for lighting, air conditioning, power, refrigeration, and other purposes. They may install cables for electronic equipment such as computers and telecommunications equipment. Electrical systems and equipment are kept in good working order by maintenance electricians. Industrial electricians perform electrical work in existing industrial buildings and workplaces.

SKILLS AND APTITUDES NEEDED: Good health including color vision and physical strength. Ability to see and compare shapes and forms of objects; visualize three-dimensional objects; average eye-hand coordination and use of hands and fingers; electrical and mechanical aptitude; basic math skills.

WORK SETTING: Indoors and outdoors for construction electricians; indoors for maintenance electricians. Often stand for long periods or may work in confined spaces. Must follow safety practices while working on electrical systems and use care while working on ladders, scaffolds, or roofs. Construction electricians may travel to different work sites. Areas may be noisy due to other work being done.

PHYSICAL DEMANDS AND HAZARDS: May work in high places. Work may be physically strenuous at times and may lift objects weighing up to 40 pounds or more.

EMPLOYERS: Construction and utility firms, air transportation services, repair services, hotels, the military, and the federal, state, and county governments.

CAREER LADDER: ENTRY LEVEL: Helper; Apprentice. **ADVANCEMENT:** Crew Leader; Working Supervisor; Supervisor; Cost Estimator; Project Manager; Contractor.

EMPLOYMENT OPPORTUNITIES: Balance to slight surplus. Outlook depends on economic conditions, level of construction and manufacturing activity and replacement needs. Although the wages are generally lower for maintenance electricians, employment is often steadier than in construction. Licensing is required for most journey-level electricians. Locally and Nationally, average employment growth is forecasted through the year 2014.

WAGES: Vary with employer. Journey workers in construction earn around \$35-\$37 an hour. Apprentices start at around \$12-\$13 an hour.