

Honolulu Community College
University of Hawaii
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REFRIGERATION and AIR CONDITIONING TECHNOLOGY

PROGRAM DESCRIPTION: The program provides entry level skills in the field of refrigeration and air conditioning technology. Students are taught practical skills in soldering, brazing, compressor overhaul, testing and servicing refrigeration system construction and operation.

- **DEGREES OFFERED:** Certificate of Achievement, Associate in Applied Science
- **RECOMMENDED PREPARATION:** Pre-Algebra, applied mathematics, basic geometry, and English
- **COST:** Books, Supplies, and Tools - approximately \$700
- **TECHNICAL STANDARDS:** Can be found at <http://tech.honolulu.hawaii.edu/rac>

THE OCCUPATION

DESCRIPTION: Refrigeration and air conditioning mechanics install, repair, service, and maintain cooling equipment used in homes, schools, and commercial buildings. They may work on equipment ranging from household air conditioners and refrigerators to large, complex systems in plants and factories. Duties include installing equipment such as motors and evaporators, connecting the equipment to a power source, and diagnosing and repairing faulty systems.

SKILLS AND APTITUDES NEEDED: Mechanical ability, average eye-hand coordination, ability to visualize three-dimensional objects from drawings, and average ability to communicate with others.

WORK SETTING: Mostly indoors. May spend the entire day away from employer's shop at different job sites. May be on-call and work evenings and weekends in emergencies.

PHYSICAL DEMANDS and HAZARDS: Heavy lifting; may be exposed to noise and fumes. Must use care when working on electrical and mechanical parts and while on ladders and rooftops. May work in high places or in cramped positions.

EMPLOYERS: Repair/service shops, air conditioning equipment companies, sheet metal or plumbing contractors, hotels, military, government agencies, and self-employment.

CAREER LADDER: ENTRY LEVEL: Apprentice; Trainee; Helper. ADVANCEMENT: Supervisor; Sales and Service Manager; Superintendent; Contractor.

EMPLOYMENT OPPORTUNITIES: Balance to slight shortage of beginners and slight shortage of experienced workers. Outlook depends on replacement needs, the economy, and the level of construction activity. Locally, average employment growth is forecasted, and nationally average employment growth is expected through the year 2014. Highly skilled mechanics and installers who have formal training and ability to install, remodel, and service new and existing systems should fare best.

WAGES: Vary with specialty and whether the worker is a union member. Apprentices start around \$10 an hour; experienced journey workers on public construction projects earn \$30-31/hr an hour or more. In other settings, earnings for qualified persons may range from \$12-\$25 an hour.