

WHAT DOES THE PROGRAM PREPARE ME TO DO?

This course provides entry-level and upgrade training in heating, air conditioning and refrigeration. Instruction covers the following areas: basics of air conditioning, fundamentals of heating, troubleshooting, basic electricity, electrical circuits and motors used in refrigeration, silver brazing and soldering, amprobes, multimeters and recovery refrigerant systems.

THE JOB

Air-conditioning and refrigeration technicians install and service central AC systems and a variety of refrigeration equipment. Technicians follow blueprints, design specifications, and manufacturers' instructions to install motors, compressors, condensing units, evaporators, piping, and other components. They connect this equipment to the duct work, refrigerant lines, and electrical power source. After making the connections, they charge the system with refrigerant, check it for proper operation, and program control systems.

When airconditioning and refrigeration equipment breaks down, technicians diagnose the problem and make repairs. To do this, they test parts such as compressors, relays, and thermostats. During the winter, airconditioning technicians inspect the systems and do required maintenance such as overhauling compressors.

Heating equipment technicians follow blueprints or other specifications to install oil, gas, electric, solid-fuel, and multiple-fuel heating systems. After putting the equipment in place, they install fuel and water supply lines, air ducts and vents, pumps, and other components. They may connect electrical wiring and controls and check the unit for proper operation. To insure the proper functioning of the system, furnace installers often use combustion test equipment such as carbon dioxide and oxygen testers.

Heating equipment technicians perform routine maintenance and repair work in order to keep systems operating efficiently.

STUDENT OUTCOMES

Upon successful completion of an ROP course, each student will:

- ❖ Demonstrate occupational specific, communication and critical thinking skills
- ❖ Demonstrate responsible work ethics
- ❖ Demonstrate career/employment literacy
- ❖ Demonstrate effective use of technology



EMPLOYMENT AND TRAINING

Heating, airconditioning, and refrigeration technicians held about 256,000 jobs in 1996. More than half of these worked for cooling and heating contractors. The remainder were employed in a wide variety of industries throughout the country, reflecting a widespread dependence on climate control systems. Some worked for fuel oil dealers, refrigeration and airconditioning service and repair shops, and schools. Others were employed by the Federal Government, hospitals, office buildings, and other organizations that operate large air-conditioning, refrigeration, or heating systems. Approximately 1 of every 7 technicians was self-employed.

Because of the increasing sophistication of heating, airconditioning, and refrigeration systems, employers prefer to hire those with technical school training. Students study theory, design and equipment construction, as well as electronics. They also learn the basics of installation, maintenance, and repair.

SPECIAL CONSIDERATIONS

- ❖ Minimum age - 16 years old or 11th grade
- ❖ Interest in the air conditioning, heating field
- ❖ Ability to work independently
- ❖ Ability to understand and carry out instructions
- ❖ Ability to reason and work through a problem
- ❖ Ability to carry out sequences of activities
- ❖ Attention to detail and accuracy
- ❖ Ability to read and write in English and recall information
- ❖ Good manual dexterity and motor coordination
- ❖ Dress requirement: closed shoes, no jewelry, conform to dress standards and conduct regulations of the class

ROP TEACHERS

ROP teachers know the job market, have business and industry experience within the field they teach and are credentialed. **LEARN FROM THE BEST WITH ROP TEACHERS.**

COURSE LENGTH

One semester course

ROP CERTIFICATE OF TRAINING

An ROP certificate of completion, including competencies, is awarded to students who complete the course.

HIGH SCHOOL CREDITS

Upon successful completion of the class, credits earned in ROP are forwarded to each student's high school. These credits may be applied toward fulfillment of the requirements for a high school diploma.

MAKE THE CAREER CONNECTION

for

AIR CONDITIONING, HEATING AND REFRIGERATION

**YOUR ROP TRAINING
LEADS TO JOBS as....**

Entry Level

(High School Diploma/ROP Training)

Air Conditioning and Refrigeration Technician
Heating Equipment Technician

Technical Level

(Community College Degree)

*Students will qualify for advanced placement
at Chaffey College and Citrus College*

Independent Shop Owner

Students will benefit by having knowledge of shop math, mechanical drawing, applied physics and chemistry, electronics, blueprint reading, computer skills and the ability to read technical manuals.

WHAT IS ROP?

The Baldy View Regional Occupational Program is a cooperative vocational education effort between the Chaffey Joint Union High School District, Chino Valley Unified School District, Claremont Unified School District, and Upland Unified School District. ROP's purpose is to provide a wide variety of career preparation at the entry and technical levels to meet the needs of high school students and adults.

***Prepare for YOUR future NOW
by enrolling in ROP TODAY!***

ENROLLMENT INFORMATION

High school students should contact the Career Technician at their high school.

Adults should call Baldy View R.O.P. office for specific enrollment dates and available classes.

(909) 947-3400 ext. 300
www.baldyviewrop.com

Enrollment priority:

- ❖ High School Students: seniors, juniors, sophomores, 16 yrs. of age and older.
- ❖ Adults living within our geographical service area.
- ❖ Adults living outside our geographical service area

Baldy View ROP is an equal opportunity employer and asserts that it does not discriminate on the basis of race, color, creed, national origin, ancestry, religion, sex, age, or handicap in its employment or enrollment in job training programs

AIR CONDITIONING, HEATING & REFRIGERATION



A career preparation program designed to provide related instruction and practical experience.

