

## YUBA COMMUNITY COLLEGE

### CLASS TITLE: PROJECT MECHANIC-HVAC/ELECTRICIAN

**BASIC FUNCTION:** Under the direction of the Maintenance Supervisor, perform skilled work in the installation, maintenance and repair of heating, ventilation, air conditioning and electrical systems.

#### **REPRESENTATIVE DUTIES:**

Layout, assemble, install, test and repair electrical fixtures and apparatus including conduits; meters, fuse boxes, control boards, lights, fans, heaters, fire alarms, bell and buzzer systems, field lighting systems, clock systems and wall, floor and ceiling receptacles; operate computer terminals to diagnose malfunctions. (E)

Inspect, disassemble, repair, maintain and service ventilation, air conditioning and heating systems and other electrical equipment and appliances; locate and repair gas leaks. (E)

Maintain pneumatic system and digital control components; install internal and external wiring for equipment and appliances; maintain and repair sprinkler controls, automatic door openers, kilns, automatic book shelves, water coolers and elevators. (E)

Monitor temperatures, pressures and differentials and adjust if necessary; perform combustion analyzer test. (E)

Maintain campus domestic water control systems; conduct water analysis and maintain appropriate pH levels for cooling towers; test circuits, equipment and boiler water; diagnose problems and perform repairs. (E)

Perform preventive maintenance; communicate with vendors, contractors and consultants to obtain current and accurate information regarding application, maintenance and repair. (E)

Fabricate, install and repair sheet metal work; operate forklift and pneumatic extension ladder; utilize brazing, gas, ARC and soldering methods. (E)

Repair and maintain central air compressors and air delivery systems and related equipment. (E)

Maintain adequate supply of tools and materials; estimate labor and material costs for minor repairs. (E)

Maintain refrigerators, ice makers, water coolers and freezers; maintain and operate Refrigerant and Recovery and recycle equipment according to established EPA laws, rules and regulations. (E)

Program and maintain direct digital controls (DDC's) for the operation and maintenance of HVAC systems.

Perform related duties as assigned.

**KNOWLEDGE AND ABILITIES:**

**KNOWLEDGE OF:**

Materials, tools, methods and terminology used in the maintenance and repair of HVAC, electrical and boiler systems

Proper operation of HVAC equipment; including pneumatic and digital controls

Record-keeping techniques

Health and safety regulations

Oral and written communication skills

Technical aspects of field of specialty

**ABILITY TO:**

Layout, assemble, install, test and repair electrical fixtures and equipment and light and power systems

Maintain and repair HVAC equipment and related controls

Work from sketches, diagrams, drawings and blueprints

Operate tools and equipment skillfully and safely

Fabricate sheet metal and weld

Estimate scope and cost of work assignments

Make arithmetic calculations

Understand and follow oral and written instructions

Establish and maintain cooperative and effective working relationships with others

Maintain records and prepare reports

**EDUCATION AND EXPERIENCE:** Any combination equivalent to: graduation from high school and five years of journey-level experience in the HVAC or electrician trade.

**LICENSES AND OTHER REQUIREMENTS:**

Valid California driver's license

Valid Refrigerant and Recovery certification from the EPA

**WORKING CONDITIONS:**

**ENVIRONMENT:**

Indoor and outdoor environment

Driving a vehicle to conduct work

**PHYSICAL ABILITIES:**

Lifting and carrying heavy object

Pushing and pulling equipment

Dexterity of hands and fingers to operate specialized tools

Bending at the waist

Reaching overhead, above the shoulders and horizontally

Climbing ladders and stairs and working from heights  
Kneeling or crouching

**HAZARDS:**

Exposure to electrical power supply and high voltage  
Exposure to hazardous materials such as Freon and associated acids  
Working around and with machinery having moving parts