

SOUTHWESTERN COMMUNITY COLLEGE DISTRICT

CLASS TITLE: COMMUNICATIONS/ENERGY MANAGEMENT SPECIALIST

SUMMARY DESCRIPTION

Under direction of the Maintenance Supervisor, program, install, and maintain a variety of equipment related to computer data communications, telephone, video conferencing, and energy management systems; operate and maintain a variety of hand and power tools, test equipment, and software; and maintain a variety of records.

REPRESENTATIVE DUTIES

The following duties are typical for this classification. Incumbents may not perform all of the listed duties and/or may be required to perform additional or different duties from those set forth below to address business needs and changing business practices.

1. Design, program, install, modify, repair and relocate telephones and computer peripheral equipment; install cabling; test and train staff regarding correct usage of communications equipment. ***E***
2. Perform design, programming, and troubleshooting of telephone system switch for increased system wide operation and functionality; work with data communication circuits, intranet services, and wide area networking capabilities used within telecom systems. ***E***
3. Program and maintain PhoneMail system including assigning new users, designing and programming call processing applications, traffic studies, reports, system backups and basic system maintenance. ***E***
4. Perform a variety of duties on the Honeywell Energy Management System including design, programming, repair, sequence of system operation, backups, and schedule design and modification; create, program, and maintain graphics; recommend changes for better system operation. ***E***
5. Troubleshoot, repair, and/or replace of Honeywell Energy Management remote controllers and communication channel equipment; maintain network based system communications across campus and remote sites using college intranet and wide area networking. ***E***
6. Perform a variety of duties on the Honeywell Fire Alarm System including maintaining, troubleshooting, repairing, and cabling of remote devices. ***E***
7. Maintain campus networked security system including network connection, programming, and troubleshooting of control panel and devices; train operators in proper usage and operation; maintain proper database of network information and security codes.
8. Research and recommend procedures for proper utilization of PhoneMail, telephone data, cost, and traffic studies within a digital telephone system; work with information systems staff to make modifications and changes to campus wiring; run cable and properly terminate as required within network cabling specifications and codes and standards. ***E***
9. Create and maintain data records for College telephone wiring systems, cross-connects, trunking, port assignments and related data; process and interpret various reports concerning usage, possible fraud, and the need for system modification to increase system reliability. ***E***

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10. Create and maintain data records for College Honeywell systems controller application programs, schedule assignments, and controller network IDs. *E*
11. Provide user support and perform service calls on campus; determine problem and adopt effective course of repair. *E*
12. Assist, train, troubleshoot and work with HVAC mechanics on controls within HVAC equipment and system operation with computerized controls applications. *E*
13. Maintain inventory of parts, supplies, and equipment; prepare requisitions; purchase tools, parts and test equipment as necessary; evaluate and recommend new products. *E*
14. Create, schedule, and perform preventive maintenance on phone system, Honeywell EMS, fire and security systems; perform routine cleaning and adjusting as necessary.
15. Maintain a variety of files including equipment specifications, manuals, diagrams, circuit diagrams, and parts lists. *E*
16. Operate a variety of basic hand tools, electric and battery operated drills, mini-computers, signal generators, Db meters and oscilloscopes. *E*
17. Perform maintenance, repair, setup and upgrades to college video conferencing equipment and data circuits providing signal for operation; train and work with users when necessary on operation and usage of video conferencing equipment.
18. Perform systems design work; read blueprints and utilize appropriate software.
19. Train and provide work direction to student workers as necessary.
20. Perform related duties and responsibilities as required.

KNOWLEDGE AND ABILITIES

Knowledge of:

Operational characteristics of computer data communications, telephone, and energy management systems.

Methods, practices, equipment and tools used in the installation, repair and maintenance of computer data communications, telephone, and energy management systems.

HVAC and electronic control systems.

Principles and practices of systems design and installation.

Principles of telephones including electronic testing of computer based switches.

Micro-electronic and data communication electronics.

Principles of electronic and electrical equipment, materials and theory.

Use and maintenance of a variety of power and hand tools.

Preventive and corrective maintenance techniques.

Precautions necessary for working with high voltage.

Proper Intranet wiring including LAN and WAN connections.

Data transmissions.

Digital and analog theory.

Data communications techniques and basic programming language including graphics programming within energy management.

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Methods and techniques of T-1's and T-1 pri's operation and troubleshooting.
Routers and switches within a network.
Interpersonal skills using tact, patience and courtesy.
Technical aspects of field of specialty.
Office procedures, methods, and equipment including computers.
Principles and procedures of record keeping.
Occupational hazards and standard safety practices.
Pertinent federal, state and local codes, laws and regulations including Cal/OSHA safety rules, regulations and other safe work practices.

Ability to:

Perform a variety of installation, repair, and maintenance duties on computer data communications, telephone, and energy management systems.
Install and maintain equipment related to computer data communications and telephone systems.
Re-write energy management system programs at the highest level programming environment.
Make recommendations and write programs using appropriate energy management capabilities.
Work with various test equipment such as oscilloscopes.
Use hand tools, electronic testing equipment and materials of the trade.
Work from plans, specifications and schematic drawings and charts.
Develop and enforce safe work standards and high quality levels of service.
Operate hand and power tools competently and safely.
Maintain required work logs, records and related operational and maintenance data.
Work independently with little direction.
Plan and organize work to meet changing priorities and deadlines.
Operate office equipment including computers.
Work cooperatively with others.
Train and provide work direction to others.
Troubleshoot operating systems and site specific programs.
Work with and exhibit sensitivity to and understanding of the diverse racial, ethnic, disabled, sexual orientation, and cultural populations of community college students.
Communicate clearly and concisely, both orally and in writing.
Establish and maintain effective working relationships with those contacted in the course of work.

EDUCATION AND EXPERIENCE

Any combination equivalent to: two years college with major course work in electronics or related field and two years experience in electronics including development, maintenance, installation and repair of a wide variety of electronic equipment.

LICENSE OR CERTIFICATE

Valid California driver's license and a safe driving record.

PHYSICAL DEMANDS AND WORKING ENVIRONMENT

The conditions herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential job functions.

Environment: Work is performed in both indoor and outdoor field environment; travel from site to site; exposure to noise, dust, grease, smoke, fumes, electrical energy and high voltage and all types of weather and temperature conditions; work at heights; works near moving mechanical parts; frequent

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exposure to hazardous activities including high voltage electricity; may be required to work extended hours including evenings and weekends.

Physical: Primary functions require sufficient physical ability and mobility to walk, stand, and sit for prolonged periods of time; frequently stoop, bend, kneel, crouch, crawl, climb, reach, and twist; push, pull, lift, and/or carry moderate to heavy amounts of weights; dexterity of hands and fingers to operate specialized hand and power tools and equipment; operate assigned equipment and vehicles; verbally communicate to exchange information.

Vision: See in the normal visual range with or without correction.

Hearing: Hear in the normal audio range with or without correction.

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