

COLLEGE COMPUTER SYSTEMS SPECIALIST**DEFINITION**

Under direction of a college-based manager, to plan, install, support, maintain, upgrade, repair, administer and integrate homogeneous, heterogeneous, peer-to-peer, client/server interconnected networks and information systems, telecommunication connections and Internet connectivity; to provide consultation and training to faculty, staff, and students on the appropriate and optimum use of the various college and satellite campus computing systems; to monitor, enhance, optimize, plan and organize the various interconnected networks and telecommunications operations including stand alone, peer-to-peer and client/server operating systems; develop and perform system procedures; and to perform related duties as assigned.

DISTINGUISHING CHARACTERISTICS

Incumbents in this class perform a variety of technical duties related to both hardware, software, and telecommunications support for satellite, administrative, and instructional networked computing systems. Positions in this class provide support for all aspects of these complex systems, which must include multiple networked systems operating under complex and diverse operating systems, including homogeneous, heterogeneous, peer-to-peer, client/server, and interconnected systems. It is distinguished from an Electronics Specialist - Computer/Audio and the Computer Center Technician III in that it supports all aspects of the complex and multiple interconnected networks and telecommunications from initial planning to day-to-day operations. It is distinguished from the Network Specialist in that it supports college rather than district-based computer systems. Incumbents regularly use significant independent judgment and discretion in the performance of duties and frequently relate with manager, faculty, staff, and students.

SUPERVISION RECEIVED AND EXERCISED

Receives direction from the manager at the college responsible for the college's computer and information systems. May provide direction for classified employees and student assistants.

EXAMPLES OF DUTIES

Essential duties may include, but are not limited to, the following:

Plan, design, configure, install, optimize, upgrade, troubleshoot, maintain, and repair heterogeneous, homogeneous, peer-to-peer, and client/server college computer systems that include network software and hardware components on file servers, client workstations, and network peripherals.

Plan, create, configure, and administer user and group accounts, network printing services, Internet connectivity, network security, and network software applications.

Provide consultation, training and problem-solving support to faculty, staff, and students using heterogeneous, homogeneous peer-to-peer, and client/server computer systems, network peripherals, and applications.

Plan, design, and implement expansions of networks, satellite campus, and telecommunications access including changes to hardware, software, and peer-to-peer and client/server operating systems; install and modify all aspects of computer systems including wiring, cabling, line drivers, converters, routers, network peripherals, and other equipment.

Monitor and enhance the operating environment to ensure optimal performance; apply software patches and write command procedures and programs to eliminate operating errors; maintain, modify, install, test and debug system-level software such as operating systems, device drivers, memory managers, and communications software.

EXAMPLES OF DUTIES (continued)

Participate in testing and evaluating hardware and software products and make recommendations on their purchase and use.

Communicate with vendors to obtain information, resolve problems, arrange and conduct demonstrations and evaluations, order repair parts, supplies, and documentation.

May write, test, debug, and maintain data conversion, database, spreadsheet and other application programs to support college operations; generate and write reports and documentation.

May provide direction to technicians, student assistants, managers, staff, faculty, and others who provide computer systems support.

Maintain records of activities; develop and maintain system documentation.

Stay abreast of industry technology and trends; adapt to changes in technology.

MINIMUM QUALIFICATIONS

Knowledge of:

Principles, theories, methods, materials, and equipment used in the design, installation, operation, and maintenance of telecommunications, and network technologies including peer-to-peer, client/server, and stand alone operating systems, peripherals, applications, connectivity, protocols and topologies.

Administration, use, and requirements of common computer operating systems, applications programs, and communications software.

Procedures of software and hardware configurations and optimization.

Installation, maintenance, and repair of fiber and copper media in a bus, ring, star topology or any combination thereof.

Installation, maintenance and support of network management software packages.

Basic analog and digital electronics.

Common safety precautions in the installation, repair and operations of electronic equipment.

Principles and practices of technical supervision and training.

Ability to:

Plan, install, operate, administer, troubleshoot, maintain, and repair personal computers, multiple networks, network peripherals, and telecommunications software and hardware, and fiber and copper media.

Provide technical advice and assistance on matters relating to the installation, operation, and support of college computer systems including multiple networks, network peripherals, telecommunications, and Internet.

Use electronic test equipment and common small hand tools.

Ability to: (continued)

Train users on the use of the college computer systems.

Comprehend technical manuals and instructions.

Experience and Education:

Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and skills would be:

Education:

Equivalent to an Associate of Arts degree from an accredited institution in computer science, information technology or related field including or supplemented by course work or training in electronics. Possession of a certificate as a Novell Certified Network Engineer (CNE), a Novell Enterprise Certified Network Engineer (ECNE), or equivalent satisfies the education requirement.

Experience:

Two years of responsible experience in the installation operation, backup, repair, upgrade, support, maintenance, and interoperability of stand alone and network operating systems, applications, hardware, telecommunications equipment, network peripherals and network security.

License:

Possession of a valid California driver's license.

PHYSICAL CHARACTERISTICS (with or without the use of aids)

- Demonstrates ability to enter and edit pertinent data on computer terminals.
- Demonstrates sufficient vision to read all printed materials including computer screens and electronic displays. Demonstrates sufficient near and distant vision to perform the essential duties of this position.
- Demonstrates ability to use small hand tools and electronic test equipment.
- Demonstrates sufficient hearing to conduct fact-to-face and telephone conversations.
- Speaks in an understandable voice with sufficient volume to be heard within a normal conversation distance, on the telephone, and in addressing groups.
- Demonstrates ability to transport self to places necessary to perform job including enclosed areas of buildings and on even and uneven surfaces.
- Demonstrates ability to occasionally lift and/or move up to 35 pounds.
- Demonstrates the physical, mental, and emotional stamina to perform the duties and responsibilities of the position.

WORKING CONDITIONS

This job involves a considerable amount of manual labor including entering enclosed areas of buildings such as crawl space as well as office work. Environment is generally clean although occasional exposure to conditions such as dust, fumes, odors, or noise will occur. A video display terminal is used on a regular basis.

(To Board 8/28/96)