College of the Redwoods	Position Description

Position: Network Administrator	Position Number:
Department:	FLSA: Non-exempt
Reports to:	Salary Grade: 126

Summary

Plans, manages and maintains all components of the local area and wide area networks governing the data communications among personal computers. This includes computer networks, mail systems, and telecommunications for microcomputers, servers. Plans and designs the implementation of the LAN/WAN infrastructure including hardware/software recommendations. Oversees technical support and help functions that relate to networks and connectivity. Oversees the technical design and development computer database systems, associated master files, and applications. Administers integrated relational database systems for use in the business and instruction applications.

Essential Duties and Responsibilities

- Oversees and maintains the network including operations planning and design, work order generation, moves, adds, changes, fault prediction, trouble detection/correction, traffic measurement, circuit analysis, path testing, and general maintenance.

- Supervises and configures, installs, and maintains directory structures, security and applications software. May survey users to determine the common applications and variety of software.

- Develops, implements, and enforces network naming and addressing standards.

- Develops and maintains up-to-date documentation for network infrastructure, servers, and procedures.

- Develops strategies for network server data backup, including recovery and disaster recovery plans.

- Coordinates and installs and configures all network users, e.g., computers, printers, modems, cabling, peripheral communications equipment, servers, routers, and hubs.

- Administers and maintains electronic mail systems and accounts.

- Manages and monitors memory usage of the network, network printing, and network technical resources.

- Researches, determines, defines, and recommends network changes to ensure continuous operations, desired performance and service.

- Oversees and participates to troubleshoot and resolve all network hardware and operations problems, including but not limited to connectivity, internet access, electronic mail and file servers. Works with fellow staff, equipment users, vendors, and independent contractors to identify and resolve problems.

- Ensures proper installation and configures the full range of network, telephony, and mainframe devices.
- Plans and designs networks for new offices and classrooms, remodels, and library or laboratory centers. Monitor new network installations.
- Facilitates processes that lead to recommendations on hardware and software products to be used on the network.
- Establishes protocols and procedural controls for operation of the network systems.
- May participate with applications developers and programmers to design custom programs and access.
- Analyzes, modifies tests, and debugs existing database structure, systems and programs. Analyzes problems and makes modifications to systems and individual programs as required.
- Develops modifications or enhancements to existing database structures and programs to meet user needs or systems design changes. Assists in developing and modifying internal data processing standards and procedures.
- Designs, develops and tests computer applications and systems related to database administration.
- Consults with various staff to determine computer database needs and requirements and coordinate database administration related activities and services. Assists with user implementation of database and data processing systems.
- Analyzes problems with database applications through consultation with users. Determines and implement appropriate corrective action.
- Performs other duties as assigned that support the overall objective of the position.

Qualifications

- **Knowledge and Skills**

  Requires specialized professional knowledge of personal computer based local and wide area networks; network operations over multiple servers and platforms; integration of data and telecommunications; principles and practices of data processing and systems administration, including connectivity between network servers; database structures and design; and mainframe computers. Must know the physical elements of the network including: fiber optic, twisted pair, and coaxial Ethernet cabling and connections; Localtalk/Appletalk cabling and connections; and routing, switching, and repeating equipment. Requires a thorough understanding of the topologies of Ethernet, Appletalk and Novell. Requires a thorough understanding of College protocols including, Appletalk, TCP/IP, IPX/SPX, NetBEUI protocols. Requires a working knowledge and related skill of programming concepts in C, SQL, and visual basic languages. Requires well-developed communication skills to convey highly technical concepts with a wide range of internal contacts and deal effectively with external contractors. Requires skill at conducting training and facilitating small group processes.

- **Abilities**

  Must be able to plan, organize, and implement a network and perform the full range of complex and technical duties described above. Must be able to analyze and evaluate the needs of users and develop the most effective program or solution to meet those needs. Must know how to install, configure, maintain and troubleshoot equipment, systems and programs used by College offices and sites. Must be able to develop programs and systems. Must be able to prioritize and delegate work. Must be able to read interpret and apply complex technical information.

- **Physical Abilities**

  Ability to perform all aspects of the job. Sufficient hand eye coordination to make small component connections; visual acuity to read technical documents and instructions and align small components. Ability to lift objects of light to medium weight (less than 25 lbs.), to bend or stoop into small areas to connect electronic communications wiring.

- **Education and Experience**

  Requires a bachelor's degree in computer science or related technical field and 3-5 years' experience in network operations, network administration, data base design and administration, and personal computer support. Novell CNE or Microsoft MCSE certification with emphasis in Microsoft Exchange administration or Windows NT/2000Server is required. Additional experience may substitute for some higher education. Requires specific experience in the design, implementation, and on-going support of a local and wide-area network; user training in network and commonly used business applications, development of data entry screens for data base access, design of data base structure.

- **Licenses and Certificates**

  Current valid California driver's license