

Position: Electronic Systems Specialist II	Position Number:
Department:	FLSA: Non-exempt
Reports to:	Salary Grade: 121

Summary

Performs a wide variety of skilled and technical duties relating to research, planning, design implementation, technical recommendations, installation, repair and maintenance of sophisticated electronic systems and equipment such as, but not limited to computers, peripherals, data communication lines, computer networks, video conferencing system, and the campus telephone and associated systems.

Essential Duties and Responsibilities

- Installs, services, and repairs a variety of sophisticated equipment and systems such as computers, peripherals, all mediums of data communication, LAN/WAN equipment and infrastructures, video conferencing equipment, campus telephone PBX, and voice mail systems, network equipment and infrastructures, office machines, and other electronic equipment.
- Services electronic equipment using appropriate troubleshooting procedures. Diagnoses equipment malfunctions by localizing and isolating problems, determining appropriate repair procedures, and replacing defective parts, restoring to proper operation.
- Installs, tests, and maintains networked and standalone data communication cables, low-voltage power distribution cables and wiring, and performs splicing as required. Receives wiring diagrams and piping layouts, instrumentation drawings, specifications and instructions concerning repair, installation, and inspection work to be performed.
- Participates in planning and design of network systems in conjunction with the network administrator. Design and recommend electronic system improvements and enhancements; modify and enhance existing equipment performance and reliability.
- Participates in troubleshooting activities and the resolution of LAN/WAN hardware and operations problems. Works with technical staff, end-users, vendors, and independent contractors to identify and resolve problems.
- Reconfigures and relocates computer equipment as needed. Understands and uses diagnostic tools and software for personal computer troubleshooting and problem determination.
- Operates a variety of hand and power tools, testing and measurement devices, and other technical instruments used in the installation, repair and maintenance of electronic equipment. Uses computerized diagnostic tools to identify problems with computer, LAN/WAN, network and telecommunications systems.
- Provides support to the network administrator in configuring, installing and maintaining directory structures, security, email, internal connectivity, internet access, application

software on workstations and other network tasks as needed.

- Provides assistance, information and technical expertise to faculty, administrators, and students regarding the safe and proper operation and maintenance of assigned equipment.
- Maintains up-to-date knowledge of technological advancements and developments in the field of microcomputer systems and electronics. Proposes new equipment and electronic systems purchases to replace damaged or obsolete items. May contact vendors and manufacturers for specifications, pricing, and purchase.
- Prepares and maintains records on equipment location, condition, history, work order requests, and maintenance and repair schedules. Schedules and performs preventive maintenance on various electronic systems and equipment; scheduling outside repairs for equipment under warranty or contract.
- Performs other duties as assigned that support the overall objective of the position.

Qualifications

▪ **Knowledge and Skills**

The position requires in-depth technical knowledge of electronic and electrical theory, principles and practices, including the terminology methods, practices, and procedures used in the diagnostics and repair of electronic equipment. Requires advanced technical knowledge of personal computer operations, including the relationship and usage of various input and output components. Requires a working knowledge of network operations, data transmission characteristics, NOS's, security, and data communication mediums including copper, fiber optic, and wireless topologies. Must be familiar with networking protocols. Must be familiar with digital video standards and protocols. Must be familiar with telephony and telephone switching technologies and standards. Requires knowledge of safety practices and precautions used in working with electrical/electronic equipment. Requires skill in operation of specialized hand and power tools and testing and measuring instruments. Requires thorough knowledge of wiring diagrams and specifications and properties of various materials used in data communications, telecommunications, electronic control systems and digital video communications. Must understand the protocols and procedures for setting up new equipment, troubleshooting and performing routine maintenance. Requires well-developed communication skills to convey technical concepts. Provides technical assistance to users, communicates with vendors and external contractors; requires writing skills to document work activity, draft proposals, and write repair instructions and specifications.

▪ **Abilities**

Requires the ability to carry out all of the responsibilities of the position. Must be able to plan, organize, and implement technology projects and perform a full range of complex and technical duties described above. Must be able to operate, install, configure, maintain, repair and troubleshoot a variety of electronic equipment, computer systems and peripheral devices, network hardware and infrastructure, software applications, digital video systems and telecommunication equipment. Requires the ability to read, analyze, and interpret technical documentation and blueprints for installation, repair and operation. Requires the ability to operate electronic measuring instruments and test equipment as well as a variety of hand and power tools in a safe and correct manner. Requires the ability to use computerized diagnostic tools. Requires the ability to work safely in the presence of high voltage. Requires the ability to organize, sequence, and complete work activities to

meet schedules and timelines. Requires the ability to maintain accurate records.

- **Physical Abilities**

Requires sufficient ambulatory ability to lift and carry medium weight materials up to 40 pounds. Requires the ability to bend, kneel, stoop, crawl, and perform work in awkward body positions. Requires visual acuity to read small words, images, and numbers; hand-eye coordination to locate, touch, and manipulate small objects; depth perception; hand and finger dexterity to use a keyboard and perform intricate electronic repair. Requires auditory ability to carry on conversations in person and over the phone. Requires the ability to work in a variety of indoor and outdoor settings, including but not limited to classrooms, instructional labs, offices, grounds, and wiring tunnels or vaults.

- **Education and Experience**

Requires an Associates degree with a preference in electronics or computer science, and at least four years experience with electronic, electromechanical, computers, peripherals, data communications, telecommunications, digital video systems, networks, LAN/WAN's, software applications, equipment installation and repair. BSEE, Microsoft MSCE, Novell CNE or AAA+++ degrees and certifications are desirable. Additional experience may substitute for some higher education.

- **Licenses and Certificates**

Current valid California driver's license