Electronic Systems Technician

**Definition:** This is advanced technical and supervisory work in the installation and maintenance of electronic systems and facilities.

An employee in this class is responsible for installing and maintaining all types of electronic equipment used in closed circuit television, radio, language and science laboratories, dial access systems, and audio-visual education. Work involves testing electronic devices and circuits for television production, computerized instruction, or electronic learning laboratories, as well as the repair of complex electronic equipment and instruments. Work also involves responsibility for the operation of a closed circuit television system used for distributing, recording, and playing back a variety of educational programs. Work includes assisting instructors and administrators with the technical aspects of assignments related to the preparation of lessons, demonstrations, and special telecasts and develops specifications for the purchase of equipment required in expanding or revising existing electronic systems. Supervision may be exercised over a small staff of technical and clerical employees. Work is performed independently and usually without immediate recourse to technical assistance or well-defined guidelines, and is reviewed by an administrative superior for overall adequacy and operating efficiency.

**Examples of Work:** Installs or maintains television monitors, radio fades, sine wave generators, audio and video mixers, and video tape records, sound motion picture projectors, and microphones; designs, installs, and maintains public address systems, test and repairs all recording equipment for pumps, boiler plant control systems, and the application of thermocouples for measuring heat release.

Operates a closed circuit television system, including setting up all equipment needed to transmit, record, and play back educational programs; monitors equipment in operation to check quality of program and to prevent malfunctions.

Inspects distribution systems for routine closed circuit television transmissions, stimulus and response devices for behavioral science experiments, remote control equipment, and various tests and measurement devices.

Supervises and participates in the repair of amplifiers, audio and video tape recorders, sine wave generators, vacuum tube volt meters, signal generators, oscilloscopes, PH indicators, television receivers, and sound motion picture projects, and all related electronic equipment.

Develops technical specifications for the purchases of television camera, pre-amplifiers, monitors, sine wave generators, control panels and mixes, and audio and video tape recorders.
Work with academic personnel on the technical aspects related to the production of education television programs.

Instructs and supervises students in correctly setting the operation needed to obtain the best results from the facility.

Performs related work as required.

**Required Knowledges, Skills, and Abilities: **Knowledge of electronic theory and practices.

Knowledge of the type of audio and video electronic equipment used in closed circuit television, radio, dial access systems, and learning the science laboratories.

Skill in the use of various electronic test measurement equipment.

Ability to install and maintain complex electronic systems.

Ability to construct electronic devices from general instructions.

Ability to analyze and interpret schematic diagrams, electronic specifications, and equipment manuals.

Ability to evaluate educational and administrative programs in terms of technical requirements for their implementation.

Ability to express ideas clearly and concisely, orally and in writing.

Ability to establish and maintain effective working relationships with academic personnel, company representatives, and associates.

**Minimum Experience and Training:** Four years of experience in the installation, maintenance, and operation of electronic equipment and systems; and graduation from high school or vocational school, with successful completion of an approved electronic course of study, or graduation from a two-year college with major course work in electronics. Additional formal training in electronics may be substituted year-for-year for experience up to a maximum of one year.

or

An equivalent combination of experience and training.