

**IOWA DEPARTMENT OF ADMINISTRATIVE SERVICES ▼**  
**HUMAN RESOURCES ENTERPRISE**  
**ELECTRONIC ENGINEER TECHNICIAN**

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**DEFINITION**

Performs technical engineering work or provides assistance to professional engineers in the design, development and implementation of computerized electronic equipment or telecommunications systems; performs related work as required.

**The Work Examples and Competencies listed are for illustrative purposes only and not intended to be the primary basis for position classification decisions.**

**WORK EXAMPLES**

Implements plans to establish and maintain a communications laboratory and mobile communications test van.

Compiles and analyzes electronic data obtained from laboratory and "on-site" tests for use in the development or expansion of computerized control center equipment or telecommunication system specifications.

Consults with representatives of state, county and local agencies to develop communication plans; prepares preliminary cost estimates; and explains system capabilities and limitation; prepares preliminary sketches and schematics of proposed installations.

Conducts "on-site" inspections and makes radiation pattern propagation tests to determine operational characteristics and efficiency of existing systems, prepares technical reports denoting operational characteristics of systems and equipment.

Develops acceptance test procedures and standards to verify performance capabilities of system installations including fire protection systems; conducts acceptance tests and recommends acceptance or rejection of installations.

Evaluates performance capabilities of new equipment and systems by conducting electronic tests using a variety of engineering test equipment such as vector or digital voltmeters, ammeters, signal generators, frequency domain analyzers, oscilloscope, etc.

Develops preventive maintenance procedure specifications for communication system sites or control center equipment.

Develops an educational program to familiarize operators with procedures for monitoring a computerized control console.

**COMPETENCIES REQUIRED**

Knowledge of the principles, theories and practical application of electronic engineering technology.

Knowledge of the methods, procedures and test equipment utilized in conducting electronic and communications system tests.

Knowledge of Federal Communications Commission rules and regulations.

Knowledge of the techniques used in the operation of mechanical and electrical systems.

Ability to plan, set-up, conduct and interpret electronic and communications systems tests.

Ability to perform complex mathematical computations using electronic formulas.

Ability to learn the structure, design and maintenance of fire protection systems.

Ability to prepare, read and interpret schematics, blueprints and wiring diagrams.

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

Ability to diagnose, isolate and repair malfunctions in electronic test equipment and communication systems.

Ability to calibrate and use electronic test instruments.

Displays high standards of ethical conduct. Refrains from dishonest behavior.

Works and communicates with all clients and customers providing polite, quality professional service.

Displays a high level of initiative, effort, attention to detail and commitment by completing assignments efficiently with minimal supervision.

Follows policy, cooperates with supervisors and aligns behavior with the goals of the organization.

Fosters and facilitates cooperation, pride, trust, group identity and team spirit throughout the organization.

Exchanges information with individuals or groups effectively by listening and responding appropriately

#### **EDUCATION, EXPERIENCE, AND SPECIAL REQUIREMENTS**

Completion of two years of formal training in electronic engineering technology, and three years of technical experience in electronic engineering work;

OR

an equivalent combination of education and experience totaling five years (thirty semesters of equivalent hours equals one year).

#### **SPECIAL REQUIREMENT**

Within a period of time as determined by the appointing authority, certain employees in this class may be required to obtain a Fire Sprinkler Installer and Maintenance License in accordance with Chapter 100D, Iowa Code.

Effective Date: 04/10 DDF