

Iowa Department of Administrative Services – Human Resources Enterprise  
Job Classification Description

## Electronic Engineer Technician

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### Definition

Performs technical engineering work in the repair, adjustment, and modification of electrical components, circuitry, or controls; may assist in the design, development, and implementation of computerized electronic equipment or telecommunications systems; performs related work as required.

*The work examples and competencies listed below are for illustrative purposes only and not intended to be the primary basis for position classification decisions.*

### Work Examples

Modifies, maintains, or repairs electronic equipment to ensure proper functioning.

Conducts scheduled and emergency repairs to determine operational characteristics and efficiency of existing systems, prepares technical reports denoting unsafe or deficient issues.

Develops acceptance test procedures and standards for wide variety of electronic or similar systems, including fire protection systems, telephone or intercoms, pagers, radios, cameras or surveillance systems, and security gates.

Sets up, operates, or calibrates specialized standard test equipment to diagnose, test, or analyze the performance of electronic components, assemblies, or systems.

Conducts maintenance, tests, and repairs using a variety of tools and equipment such as multimeters, CAD software, soldering guns, breadboards, oscilloscopes, etc.

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

Demonstrates or provides instruction on proper use of equipment, access controls, or other features needed for secure operation.

### Competencies Required

Knowledge:

- Computers and Electronics – Circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.
- Engineering and Technology – The practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.
- Customer Service – Principles and processes for providing customer services, including customer needs assessment, meeting quality standards for services, and evaluating customer satisfaction.
- Basic Arithmetic – Addition, subtraction, multiplication, and division.

**Abilities:**

- Deductive Reasoning – Apply general rules to specific problems to produce answers that make sense.
- Oral Comprehension – Listen to and understand information and ideas presented through spoken words and sentences.
- Oral Expression – Communicate information and ideas in speaking so others will understand.
- Extent Flexibility – Bend, stretch, twist, or reach with your body, arms, and/or legs.
- Finger Dexterity – Make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble very small objects.
- Near Vision – See details at close range (within a few feet of the observer).
- Visual Color Discrimination – Match or detect differences between colors, including shades of color and brightness.
- Auditory Attention – Focus on a single source of sound in the presence of other distracting sounds.
- Written Comprehension – Read and understand information and ideas presented in writing.
- Written Expression – Communicate information and ideas in writing so others will understand.

**Skills:**

- Equipment Maintenance – Performing routine maintenance on equipment and determining when and what kind of maintenance is needed.
- Equipment Selection – Determining the kind of tools and equipment needed to do a job.
- Installation – Installing equipment, machines, wiring or programs to meet specifications.
- Speaking – Talking to others to convey information effectively.
- Writing – Communicating effectively in writing as appropriate for the needs of the audience.
- Troubleshooting – Determining causes of operating errors and deciding what to do about it.

**Minimum Qualification Requirements**

Applicants must meet at least one of the following minimum requirements to qualify for positions in this job classification:

- 1) Five years of full-time work experience in technical electronic engineering work.
- 2) A total of five years of education and/or full-time experience (as described in number one), where thirty semester hours of accredited college or university coursework in electronic engineering equals one year of full-time experience.
- 3) Graduation from an accredited college or university with an associate's degree in electronic engineering, and experience equal to three years of full-time work in technical experience in electronic engineering work.
- 4) Graduation from an accredited four-year college or university with a degree in electronic engineering, and experience equal to one year of full-time work in technical electronic engineering.

**Notes**

Within a period of time after hire, as determined by the appointing authority, 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: 12/25 KMJ*