

**USF Job Class Description**

JOB CODE: 4364
JOB TITLE: Building Systems Control Tech
JOB FUNCTION: Campus Operations & Services
PAY PLAN: 23
CAREER BAND: D
FLSA: Non-Exempt
Effective Date: 04/01/10

Job Title: Building Systems Control Technician

Job Summary

The Building Systems Controls Technician is responsible for installing, programming, testing, calibrating, operating, and repair of control systems along with their related software, hardware, and equipment. These systems include energy management systems, fire & life safety systems, security systems, camera systems, building access control systems, environmental control systems, boiler control systems, chiller control systems, domestic water systems, sanitary and storm sewer systems, and plant monitoring instruments.

Nature of Work

This position typically reports to a Manager of Building & Maintenance Operations, Assistant Manager of Building & Maintenance Operations, or other appropriate supervisory or management position. This position receives supervision in the form of daily assignments/work orders, projects and tasks to be completed. This position performs the duties of the job within specific guidelines and using departmental procedures.

This position requires knowledge gained through prior experience with control systems. This position also requires skill in analyzing system malfunctions and determining appropriate repairs. In addition, this position requires specific knowledge of the related software and computer systems. Incumbents may be generalists who work on multiple systems, or specialists who serve as an expert technician on a single type of system. This position comes into contact with co-workers, his/her supervisor and also comes into contact with occupants or administrators of a building who are the customers. This position requires basic customer service skills. This job requires physical abilities such as trunk strength, manual dexterity, and wrist-finger movement in order to perform the essential functions of the position.

This position has specific knowledge/skills/ability requirements:

- Requires general knowledge of digital control concepts such as analog and digital inputs and outputs, sequences of operations, point addressable devices, closed loop and supervisory feedback systems, device programming, serial communications, and computer networking.
- Requires general skill in analyzing control system malfunctions and determining appropriate repairs. This includes troubleshooting system controller boards, field

devices, sensor wiring, control wiring, general input and output wiring, and network/communications wiring.

- Requires skill in the use of technicians' tools such as electric meters, oscilloscopes, calibration devices, electronic testers, etc.
- Requires knowledge of general methods of electrical equipment installation.
- Requires advanced abilities in use of a PC and application software.

Examples of Duties

The following list provides examples of the most typical duties for positions in this job class. Individual positions may not include all of the examples listed, nor does the list include all of the work that may be assigned to positions in this job class.

- Diagnose and resolve technical problems related to control and monitoring systems and perform needed repairs.
- Diagnose and resolve technical problems related to fire, smoke, or intrusion alarm systems.
- Tests and calibrates system devices to ensure functional reliability of operating/monitoring system
- Inspects, trouble shoots, performs corrective and preventative maintenance on HVAC equipment such as air handlers, compressors, vacuum pumps, and exhaust fans by changing belts, lubricating parts, & replacing motors, valves, sheaves, motor bearings, etc.
- Installs, adjusts and services mechanical and electronic locks, card access systems, camera systems and related equipment.
- Install, modify, and maintain system hardware such as electrical conduit, sensor wiring, communications wiring, antenna wiring, radio equipment, power supplies, control system enclosures, etc.
- Install and maintain motor control systems for fans, pumps, compressors, etc.
- Check Monitor, maintain and install building automation system for HVAC, fume hoods, exhaust fans, environmental growth chambers and related systems.
- Maintain operator work stations (OWS) including creating/updating graphics, maintaining a point database, and maintaining communications infrastructure

- Program control systems using appropriate system program language for proper sequences of operations and operating schedules
- Read and modify where necessary appropriate system blueprints and schematics.
- Create hardware schedules for controls projects, renovations, and new construction projects.
- Maintains appropriate logs and records of systems operations.
- Performs other miscellaneous duties as needed.

Minimum Qualification Requirements

This position requires a high school diploma and two years of experience installing and maintaining building/plant control systems and their related equipment. This includes experience with energy management systems, fire & life safety systems, security systems, camera systems, building access control systems, environmental control systems, boiler control systems, chiller control systems, sanitary/storm sewer systems, plant instrumentation systems. Appropriate vocational/technical training may substitute at an equivalent rate for the required experience.