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## Auburn University Job Description

Job Title: **Tech I, Controls Systems**

Job Family: No Family

Job Code: **ND16**

Grade ST14 \$44,500 - \$71,200

FLSA status: Non-exempt

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### Job Summary

Installs, operates, repairs, performs maintenance, and monitors hardware and software for building control and monitoring systems, including electronic, electric and pneumatic controls for heating ventilation, air conditioning (HVAC), lighting, utility metering and other building control systems.

### Essential Functions

1. Installs, tests, maintains, calibrates and troubleshoots existing and new control systems, including analog, digital, and pneumatic systems, metering devices, variable frequency drives, control devices and components, and other related control devices. Uses testing and calibration instrumentation and equipment to evaluate system performance and diagnose problems. Evaluates test data and recommends needed repairs, modifications, and replacements.
2. Develops application programming to be entered into existing building automation control systems, lighting control systems and other microprocessor based control systems and software programs. Programs building control systems to implement scheduled operations for daily use including routine and special scheduling for campus spaces.
3. Tests and analyzes the operation of building HVAC systems and major equipment such as boilers, chillers, lighting systems, etc. and determines operating conditions and efficiencies. Measures and records HVAC system specifications and performance values such as air flow, static pressure, voltage, amperage, and power. Makes recommendations for system repairs, renovations, modifications, retrofits, or replacements.
4. Analyzes and documents the design, application and condition of existing HVAC control systems. Develops and analyzes control strategies for the replacement or modification of existing controls systems, and the design of new control systems. Tests and evaluates new and different types of controls and energy conserving products.
5. May be responsible for meeting and maintaining training and certification requirements as outlined by the Auburn University Facilities Management Policy: "Training, Education, and Certification Requirements for Mechanical and Electrical Trades Personnel".
6. May be required to serve in an on-call status and remain work-ready when scheduled for an on-call period or rotation. Work-ready status requires an employee to return to the worksite within forty-five minutes while being physically and mentally unimpaired and fit for duty, able to safely perform all essential job functions with no risk to self, coworkers, students, public, or property.

### Supervisory Responsibility

May be responsible for training, assisting or assigning tasks to others. May provide input to performance reviews of other employees.

*The above essential functions are representative of major duties of positions in this job classification. Specific duties and responsibilities may vary based upon departmental needs. Other duties may be assigned similar to the above consistent with the knowledge, skills, and abilities required for the job. Not all of the duties may be assigned to a position.*

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*knowledge, skills and abilities required for the job. Not all of the duties may be assigned to a position.*

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### Minimum Required Education and Experience

	<u>Minimum</u>	<u>Focus of Education/Experience</u>
<b>Education</b>	Some college; vocational or Associate's Degree	Associates degree in control systems, heating, ventilating or air conditioning (HVAC), electrical, digital electronics, energy managed or related degree.
<b>Experience (yrs.)</b>	10	Ten years' experience working in control systems. Three years of which must have been at the HVAC, Electrician, Plumber, or Plant Operations Technician III level or equivalent.

#### **Substitutions allowed for Education:**

When a candidate has the required experience, but lacks the required education, they may normally apply additional relevant experience toward the education requirement, at a rate of two (2) years relevant experience per year of required education.

#### **Substitutions allowed for Experience:**

Indicated experience is required; no substitutions allowed.

#### **Minimum Required Knowledge**

Knowledge of HVAC, electrical, plumbing, utility plant, or high voltage distribution systems at the HVAC, Electrician, Plumber, Plant Operations, or High Voltage Electrician skills at the Technician III level.

Knowledge of building automation systems, building systems control components, digital electronics, Direct Digital Control (DDC) systems and components, pneumatic control systems and components, control theory, and expertise in energy management systems.

#### **Skills:**

Ability to program and modify control sequences for HVAC, Electrical, or Utility system control equipment.

Ability to program building control systems to implement scheduled operations for daily use, including routine and special scheduling for campus spaces.

Ability to solve complex HVAC/energy control problems.

Ability to install, operate, repair, troubleshoot, calibrate, adjust, replace and monitor electronic, electric and/or pneumatic building control systems for HVAC, lighting, fume hood and laboratory systems and utility metering; including adjusting complex HVAC systems and making necessary corrections to match building and occupant requirements for campus buildings.

Ability to troubleshoot, debug, monitor, and revise software for building control systems including HVAC, utility meters, lighting, Internet addressable thermostats and other Smart Building technologies. Use equipment to take flow and pressure measurements for air and water HVAC systems.

#### **Certification or Licensure Requirements**

Valid Driver's License.

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International Society of Automation (ISA) Certified in Control Systems Technician Level I or approved equivalent per Auburn University Facilities Management Policy: "Training Education & Certification Requirements for Mechanical and Electrical Trades Personnel".

The following certifications dependent on area of specialization or approved equivalents per Auburn University Facilities Management Policy: "Training, Education & Certification Requirements for Mechanical and Electrical Trades Personnel":

HVACR: Universal Refrigerant Card, North American Technician Excellence (NATE) HVAC Support Technician Certification, and HVAC Service Technician Certification.

Electrical: State of Alabama Electrician Journeyman's License (if license is registered in another state, Alabama license must be obtained in the first 6 months of employment) and Certification from the National Institute for Certification in Engineering Technologies (NICET) Fire Alarm Installation I.

Plumbing: Valid Journeyman's Plumber's License, National Inspection Testing Certification (NITC), and STAR Plumbing Mastery Certification.

Plant Operations: Universal Refrigerant Card and National Institute for the Uniform Licensing of Power Engineers (NIUPE) 4th Class Power Engineer Certification.

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## **Physical Requirements/ADA**

Frequent heavy or intense physical requirements, combined with exposure to a number of disagreeable elements, such as heat, cold, noise, dust, dirt, chemicals. Injury may require professional treatment or hospitalization. Constant precautions required.

Externally imposed deadlines; set and revised beyond one's control; interruptions influence priorities; difficult to anticipate nature or volume of work with certainty beyond a few days; meeting of deadlines and coordination of unrelated activities are key to position; may involve conflict-resolution or similar interactions involving emotional issues or stress on a regular basis.

Job frequently requires standing, walking, reaching, climbing or balancing, stooping/kneeling/crouching/crawling, hearing, handling objects with hands, and lifting up to 50 pounds.

Job occasionally requires sitting, talking, and lifting more than 100 pounds.

Vision requirements: Ability to see information in print and/or electronically.

Date: 8/12/2019

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