

7/20/2022 4 PM  
UCLA

University of California Los Angeles  
Job Description

7/21/22  
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The Job Description form is used to record the duties, responsibilities, qualifications sought and fiscal impact of classified and nonclassified positions. This information is the basis for determining the title, salary rate, and Fair Labor Standards Act exemption status for positions. To achieve these purposes, it is essential that detailed and exact information pertaining to current duties, responsibilities, and qualifications be accurately recorded on this form.

Employee Details

Employee First Name:

Employee Last Name:

Employee ID:

Position Title

Title MAINTENANCE MECHANIC

Title Code 8123

Bargaining Unit (BU) Code: K4-Skilled Crafts-UCLA

Grade Level:

Program:

Range Minimum:

Range Maximum:

Position Information

JA Number:

Department Code / Name:

Organization Code / Name: 5000-ADMINISTRATIVE VICE CHANCELLOR

FAU #:  
(format: x-xxxxxx-xx-xxxx-xx)

Please enter FAU# only, enter "N/A" if not applicable)

Department HR Contact

Name:

Email Address:	
Phone Number or Extension:	
<b>Reporting Information</b>	
Supervisor Name:	TBA
Supervisor Payroll Title:	SUPERVISOR (FUNCTIONAL AREA)
Supervisor Working Title:	
Dept Head Name:	
Dept Head Payroll Title:	DIRECTOR (FUNCTIONAL AREA)
Dept Head Working Title:	
Appointment Type:	Career
Effective Date:	
Is this a Master Job Description (For Multiple Positions Only)?	Yes
FLSA Status:	Non-Exempt
Approved Working Title:	Maintenance Mechanic - Building
Approved Employee Relations (ER) Code	E-All others, not confidential
ER Code Definitions	
Approved Bargaining Unit (BU) Code:	K4-Skilled Crafts-UCLA
Job Summary Statement:	<p>Under the general supervision of the Department Manager and the Supervisor/Lead, incumbent is responsible for providing support to properties managed by UCLA. The Maintenance Mechanic independently performs <b><u>a variety of semi-skilled skilled preventative and general maintenance</u></b> tasks, not requiring a licensed technician, involving the installation, removal, diagnosis, repair, alterations, and preventive maintenance, of buildings, their associated utility systems, various parts, equipment, and assemblies, on a regular and continuous basis. Required skills will include knowledge of plumbing, electrical, mechanical, carpentry, doors and windows, building hardware appliances, floor and ceiling systems, roofing, and basic construction methods.</p> <p>Independently analyze problems in order to determine and obtain the necessary information, organize and analyze the information,</p>

	<p>form conclusions, and present conclusions/proposals verbally or in writing as requested. Complete proper repairs using correct materials displaying a high level of workmanship while following safe work practices. May assist other mechanics in diagnosing and repairing campus equipment with complex, unusual and/or very difficult problems; assist other skilled trade workers in maintenance and repair of buildings and campus facilities.</p> <p>Experience in the use of building and maintenance, parts and materials, and standard hand and power tools is required. The position is physically demanding and the necessity to work varying and sometimes extended hours under difficult conditions should be expected. The ability to read, write, and speak English, to prepare forms and paperwork associated with the various tasks, to operate a personal computer, and to drive a car or small truck are also required.</p>
Type of Supervision Received/Exercised:	All work is assigned and reviewed on a daily basis by the Lead Maintenance Mechanic; intermittent inspection of projects and assignments is performed by the unit Supervisor/Manager. Satisfactory performance is measured by Department guidelines.
<b>Supervisory Information</b>	
Does this position have supervisory responsibilities?	No
Number of Career FTE's this position supervises:	
Number of Career FTE's supervised through subordinates:	
Extent of Supervisory Responsibilities:	
<b>Fiscal Responsibility</b>	
Amount:	
Type:	
Amount:	
Type:	
Amount:	
Type:	
<b>Core Functions &amp; Duties</b>	
Percent of Duty Total: <b>100</b>	
<b>8</b> Records	



% of Time	Core Function	Function Letter	Duty Statements
30	PLUMBING	A	<p>1. Diagnose, repair, and replace plumbing fixtures including sinks and lavatories, traps, basket strainers, levered drain stops, faucets, angle stops and valves, showerheads and mixing valves, gravity flow toilets, pressure vessel toilets, sensed flush valves, water fountains, and drinking fountains. (E)</p> <p>2. Recognize and clear stoppages in sinks and lavatories, toilets, shower drains, floor drains and associated drain lines. (E)</p> <p>3. Repair pipelines and properly replace sections of the following: <b>maximum 3/4 inch diameter</b> copper, <b>maximum of 2 inches diameter</b> cast iron, galvanized, and PVC piping, including all associated fittings, couplings, and joints. (E)</p> <p>4. Perform miscellaneous plumbing repairs as required. (E)</p> <p>5. Cuts wall, ceiling, and floor openings to accommodate repair/installation of pipes and fittings (E)</p> <p>6. Reads and interprets blueprints and plans to avoid obstructions, inspect/troubleshoot plumbing system and determine sequence of operations. (E)</p>
20	HARDWARE	B	<p>1. Diagnose, repair, and replace all types of door hardware including hinges, latches, strike plates, passage sets, keyed deadbolts, stops, closers, sweeps, drip edges, cardkey operated locks, and other related door hardware. (E)</p> <p>2. Install and repair all types of bath hardware including toilet partitions, toilet seats, towel and grab bars, soap dishes and dispensers, paper dispensers of all types medicine cabinets, and other related bath hardware. (E)</p> <p>3. Install and repair all types of general building hardware including fabricating and installing window screens, window frames, guides, rollers, latches, and locks, chalk and bulletin boards, mirrors, signage and wall hangings of all types. (E)</p>
10	ELECTRICAL	C	<p>1. Diagnose, replace, <b>and perform incidental repairs of</b> electrical components including fuses, sockets, bulbs, ballasts, garbage disposals, residential stoves and ovens, light fixtures, photocells, time clocks, outlets, switches, and motion sensors. (E)</p> <p>2. Perform <b>minor</b> circuit <b>troubleshooting</b> and complete minor repairs. (E)</p> <p>3. Perform miscellaneous electrical repairs as required. (E)</p>
10	CARPENTRY	D	<p>1. Perform <b>minor</b> rough carpentry repairs and installations involving lumber, steel studs, and drywall hanging. <b>Perform minor roof, wall, and ceiling repairs related to leak investigation and location.</b> (E)</p> <p>2. Perform <b>minor drywall patchwork repairs.</b> Apply caulking in various locations and complete minor painting jobs when as needed. (E)</p> <p>3. Repair and adjust doors, both interior and exterior. Include all door types including wood, metal, fiberglass, and metal and glass "storefront" style. Incidental replacement of interior non-rated doors. (E)</p> <p>4. Perform assorted carpentry tasks including repairs on cabinets, drawers, and shelving. Install shelves, furniture and similar items. Minor furniture repairs, and baseboard and decorative wood trim repairs or replacement. (E)</p>



			5. Repairs, restores and maintains building structures, walls, ceilings, roofs, windows, window coverings and screens. (E)
			1. Glass replacements including windows, display cases, extinguisher cabinets, and alarm stations. (E)
10	MISCELLANEOUS	E	2. <b><u>Incidental</u></b> removal, replacement and repair of vinyl floor tiles, some sheet vinyl floor repairs, and top set base. Remove and install grid ceiling tiles and glued-on ceiling tiles <b><u>and perform incidental repairs.</u></b> (E)
			3. Install, remove, and repair shelves, lockers, furniture, and office equipment. (E)
			4. <b><u>Diagnose, repair and replace components of gates and vehicle gates, not including welding repairs.</u></b> (E)
10	MECHANICAL	F	1. Diagnose, repair, and replace fan belts, filters, and ceiling fans. Diagnose and replace bathroom <b><u>and residential kitchen</u></b> exhaust <b><u>and appliances (not related to refrigeration).</u></b> (E)
			2. Perform preventative maintenance tasks <b><u>including changing air filters and fan belts, cleaning of condensate drains and coils, and lubrication.</u></b> (E)
5	SUPPLIES, TOOLS AND EQUIPMENT	G	1. Determine quantities and types of materials and tools needed to complete all assigned tasks. (E)
			2. Repair and maintain all tools and equipment in the proper fashion including vehicles and carts, personally assigned tools, departmental tools, and occasionally, tools and equipment belonging to other departments. (E)
5	ADMINISTRATIVE	H	1. Prepare, maintain, and process electronic and physical paperwork in accordance with departmental guidelines, including work orders, follow-up work orders, parts requests, preventive maintenance forms, equipment logs, vehicle logs, and attendance and time keeping sheets. (E)

#### SKACs

#### 22 Records

SKAC	Task Reference	Req/Preferred
1. Ability to speak, read, write, and understand English at a level sufficient to properly carry out job duties.	ALL	Required
2. 5 years work experience as a Maintenance Mechanic <b><u>or similar position</u></b> outside a University setting, or minimum of 3 years work experience <b><u>as a Facilities Mechanic or similar position</u></b> within a University <b><u>or similar</u></b> setting.	ALL	Required
3. Graduation from an accredited vocational or technical school with a concentration in Maintenance Mechanic trade.	ALL	Preferred
4. Ability to work independently and follow through on assignments with minimal supervision.	ALL	Required
5. Knowledge of safety standards and safe working practices.	ALL	Required
6. Working knowledge of plumbing fixtures and procedures.	A1-A4	Required
7. Working knowledge of basic electric theory, wiring, and 120/208v electrical systems and low-voltage 12v/24v electrical systems.	C1-C4	Required

8. <b>Basic</b> knowledge of mechanical equipment including motors, fans, heaters, air conditioners, and controls.	C1-C2; F1-F2; G1-G2; H1	Required
9. Strong knowledge of building materials, equipment.	ALL	Required
10. Working knowledge of cardkey door locks and their operating systems. Ability to use a portable programmer to find and solve problems.	C3, D3; B1, G1-G2	Required
11. Ability to independently perform a <b>variety of semi-skilled <del>skilled</del></b> plumbing, electrical, mechanical, and carpentry repairs.	ALL	Required
12. Ability to read, interpret, and understand architectural plans and specifications.	ALL	Required
13. Ability to select appropriate tools for each task assigned and to use these tools properly and safely. Knowledge and skill in operating all hand and power tools standard to the maintenance and construction trades.	ALL	Required
14. Basic math skills including the ability to add, subtract, multiply and divide, plus the ability to understand fractions, decimals and percentages. The ability to compute basic formulas such area calculations.	ALL	Required
15. Interpersonal skills sufficient to interact effectively with staff, management, students, residents, guests, and contractors.	ALL	Required
16. Capable of properly prioritizing assignments and able to make appropriate adjustments when there are changes in workload or competing deadlines.	ALL	Required
17. Ability to read and understand all applicable policies, procedures, and rules.	ALL	Required
18. Ability to stand, walk, crawl, climb, stoop, push, pull, and crouch for extended periods. Able to repeatedly raise or lower objects weighing up to 50 lbs from the floor to waist high and rotate upper torso. Ability to lift material and parts, up to 50 pounds, from shoulder to above head while standing on a ladder. Ability to work in dirty and noisy conditions, in wet or humid weather and in fluctuating and/or extreme temperatures.	ALL	Required
19. Must possess and maintain a valid California Driver's License. Ability to drive a truck and/or electrical cart.	ALL	Required
20. Proficient in the use of computers, mobile devices, etc. and learn the use of software programs for work management. Experience with computer software including Microsoft Windows, Outlook, Word, and Excel, and Maximo. Capable of retrieving workflow information, job assignments and material and labor data entry.	ALL	Required
21. Capable of distinguishing different colors.	ALL	Required
22. Available to work overtime including nights and weekends.	ALL	Required
23. Must be able to work various shifts, including nights and weekends, on a regular basis.	ALL	Required

#### Special Employment Designations/ Requirements

##### Special Employment Designations Per UC Policy

Conflict of Interest:  
[View Policy/Procedure](#)

N/A

Critical:  
[View Policy/Procedure](#)

Continued employment contingent upon completion of satisfactory background investigation.

<b>Driving Record:</b> <a href="#">View Policy/Procedure</a>	Position is subject to the California DMV's "Pull Notice System" and continued employment is contingent upon proof of a satisfactory driving record.
<b>E-Verify check:</b>  Certain positions funded by federal contracts/subcontracts requires UCLA to notify job applicants that an E-Verify check will be conducted and the successful candidate must pass the E-Verify check.	This position does not require E-Verify check.
<a href="#">More Information</a>	
<b>CANRA:</b> Is this position designated as a mandatory reporter under CANRA? <a href="#">More Information</a>	No
<b>Other Special Employment Requirements</b>	
Use of these is limited to certain departments and application requires prior consultation with Campus Human Resources Employment Services.	Drug Test: Employment is contingent upon completion of satisfactory drug test. Physical: Employment is contingent upon completion of satisfactory physical examination. Color Vision Testing

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Supervisor

\_\_\_\_\_  
Name and Class Title

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Employee

\_\_\_\_\_  
Name and Class Title



## Maintenance Mechanic

Class Specifications - G.15

Maintenance Supervisor - 8120

Assistant Supervisor - Maintenance - 8121

Lead Maintenance Mechanic - 8122

Maintenance Mechanic - 8123

June, 1992

7/20/2022  
UELA  
See, New Side Ltr.  
Re: Maint. mech. dated  
7/20/2022  
7/26/22  
J M

## Series Concept

Maintenance Mechanics perform a variety of skilled tasks in the maintenance, alteration and repair of utilities, buildings and related facilities and equipment. Incumbents maintain and repair mechanical and electrical equipment and facilities including plumbing and pipe-fitting; heating, air control and filtration systems and equipment: repair fume hoods, exhaust and supply fans and evaporation coolers replacing fan belts, filters, bearings and shafts; repair time set dump valves, water tanks, water wheels, and supply valves and floats; repair; restore and maintain structures, woodwork doors, windows, counters and cabinets, construct concrete forms for walks and foundations; repair and replace window blinds and screens, projection screens and window glass; repair stair treads, stage equipment, basketball lift arms and cables; maintain dishwasher conveyer belts, refrigerators/freezers and other mechanical kitchen equipment; repair ceilings, sub-floors, ceramic and vinyl tile, plastered walls, sheet rock paneling, roofs, and perform caulking of buildings; maintain and operate low pressure boilers; and instruct or lead semi-skilled or unskilled assistants.

## Class Concepts

### Maintenance Supervisor

Under direction, incumbents supervise and coordinate the work of Assistant Supervisors, Lead Maintenance Mechanics, and Maintenance Mechanics. Incumbents typically make hiring selections among job applicants, insure that new and existing staff receive proper training; make daily work schedules and assignments; review work performed at various stages and upon completion; evaluate the performance of subordinate employees; recommend or initiate personnel actions such as promotions, transfers, and disciplinary measures; and maintain various work records including written and oral reports; prepare estimates of workhours, costs and materials required.

### Assistant Supervisor - Maintenance

Under general supervision, incumbents serve as working supervisors for et specific work crew of maintenance mechanics and helpers within the shop (e.g., construction crew) which may be carrying out work assignments at a number of jobs. The assigned responsibility for the supervision of different work crews within the shop may change frequently depending

upon changing work priorities. Incumbents also assist the Supervisor in establishing daily job schedules; insure that decisions made regarding these priorities are carried out; assist the Supervisor in evaluating job performance and may recommend on disciplinary actions as necessary; may assist the Supervisor with job estimating. Incumbents act for Supervisors in their absence.

### **Lead Maintenance Mechanic**

Under supervision, incumbents serve as work leaders for one or two maintenance mechanics and helpers assigned to a specific job. Incumbents give instructions to carry out assigned tasks; may make minor changes in material needs or modifications to assigned work due to material delays or other problems; communicate work order revisions, material delays or other problems to Supervisor or Assistant Supervisor and await further instruction; maintain time and material records and perform the full range of job duties as outlined in the series concept.

### **Maintenance Mechanic**

Under supervision, incumbents perform the full range of duties as outlined in the series concept.

### **Minimum Qualifications**

Applicants for positions in the Maintenance Mechanic Series are expected to possess the skills, knowledge and abilities essential to the successful performance of the duties assigned to the position.

ATM  
7/20/2022  
UCLA

7/21/22

# Building Automation Controls Technician

University of California, Los Angeles  
PROPOSED REVISION

Class Specifications – G.25  
Building Automation Controls Technician- 9444

## CLASS CONCEPT

Building Automation Controls Technicians provide Building Automation System/DDC (BAS/DDC) repair service for existing and retrofit HVAC systems/equipment and building service systems. This includes providing controls engineering support, troubleshooting for major maintenance projects, designing and constructing BAS/DDC control panels, retrofitting projects for energy conservation, and establishing design and application practices for energy conservation and sustainable design.

*EXAMPLES OF DUTIES MAY INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:*

### Maintenance & Repair

- Provide support for the service of major and auxiliary equipment including air handling units, heating/domestic/industrial water systems, central plants, laboratory pressurization and other specialized equipment in buildings equipped with BAS/DDC by making adjustments to software program sequences and set points or to make recommendations for follow up and corrective action.
- Replace and configure failed building controllers.
- Inspect operating and safety controls and related equipment for damage, signs of deterioration, correct and safe operation and/or need for adjustment.
- Identify, repair and report malfunctions/problems; e.g., high/low temperatures or pressures, excessive vibrations, liquid levels, flows, fluctuating conditions.
- Inspect the building mechanical systems and auxiliary support equipment. Develop solutions to building control problems utilizing capabilities of automatic building control systems.
- Respond to trouble calls involving an emergency repair or replacement.

### Installation & Modification

- Build custom BAS/DDC control panels to replace or upgrade existing controls. Build new BAS/DDC control panels for energy conservation systems and alteration project.
- Install primary system controllers, unitary zone controllers, and instrumentation devices to replace an existing system or as part of an alteration project.
- Install, maintain, service, replace, repair and/or calibrate various types of sensors including temperature, humidity, CO2, VOC, current switches and utility meters.
- Install, maintain, service, replace, repair and/or adjust various types of actuators including control relays, damper motors, control valves, isolation valves and VFDs.



## **Building Automation Controls Technician**

### **MINIMUM QUALIFICATIONS**

Applicants for positions in this series are expected to possess the skills, knowledge and abilities essential to the successful performance of the duties assigned to the position.

7/20/2022 - UCLA  
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## University of California Los Angeles

### Job Description

The Job Description form is used to record the duties, responsibilities, qualifications sought and fiscal impact of classified and nonclassified positions. This information is the basis for determining the title, salary rate, and Fair Labor Standards Act exemption status for positions. To achieve these purposes, it is essential that detailed and exact information pertaining to current duties, responsibilities, and qualifications be accurately recorded on this form.

#### Employee Details

Employee First Name:

Employee Last Name:

Employee ID:

#### Position Information

JA Number:

Effective Date:

Department Code / Name:

Organization Code / Name:

5000-ADMINISTRATIVE VICE CHANCELLOR

Fund Source:

#### Department HR Contact

Name:

Email Address:

Phone Number or Extension:

#### Position Title

Title Code:

9444

Title:

BUILDING AUTOMATION CONTROL TECHNICIAN

Approved Working Title:

BUILDING AUTOMATION CONTROL TECHNICIAN

Approved Program:	
Approved Grade Level:	N/A
Range Minimum:	
Range Maximum:	
Approved Employee Relations (ER) Code:	E-All others, not confidential
Approved Bargaining Unit (BU) Code:	K4-Skilled Crafts-UCLA
Approved Step Level:	
FLSA Status:	Non-Exempt
Appointment Type:	Career
Is this a Master Job Description?	Yes

#### Reporting Information

Supervisor Name:	
Supervisor Payroll Title:	SUPERVISOR (FUNCTIONAL AREA)
Supervisor Working Title:	
Dept Head Name:	
Dept Head Payroll Title:	DIRECTOR (FUNCTIONAL AREA)
Dept Head Working Title:	

#### Job Summary

Job Summary Statement:	Under the general direction of the Supervisor (FUNCTIONAL AREA), this position provides maintenance, repair, and configuration services for all Building Automation System (BAS) related components. The Building Automation Controls Technician shall coordinate with campus Utilities shop staff to provide BAS related engineering support and troubleshooting for major maintenance projects. This position also designs and constructs BAS control panels as part of the University's ongoing program of system upgrades and retrofit projects for energy conservation. Assist in
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	establishing design and application practices that implement energy conservation and sustainable design.
Type of Supervision Received/Exercised:	Under the direction of the SUPERVISOR (FUNCTIONAL AREA) or MANAGER (FUNCTIONAL AREA), work is assigned and reviewed on a daily basis.

#### Supervisory Information

Does this job have supervisory responsibilities?	No
# of Career FTE's this position supervises:	
# of Career FTE's supervised through subordinates:	
Extent of Supervisory Responsibilities:	

#### Fiscal Responsibility

Amount:

Type:

Amount:

Type:

Amount:

Type:

#### Core Functions & Duties

% of Time	Core Function	Function Letter	Duty Statements
50	Maintenance & Repair	A	<p>1. Service BAS controls for major and auxiliary equipment including air handling units, heating/domestic/industrial water systems, central plants, laboratory pressurization and other specialized equipment in buildings with automated building systems by making adjustments to software program sequences and setpoints or to make recommendations for follow up and corrective action in coordination with Operating Engineer. (E)</p> <p>2. Validate operating and safety sequences. Correct controls related issues and report on deficiencies related to equipment damage and signs of deterioration. (E)</p> <p>3. Identify and report malfunctions/problems e.g., high/low temperatures or pressures, excessive vibrations, liquid levels, flows, fluctuating conditions. (E)</p>

			<p>4. Inspect BAS controls related to building mechanical systems and auxiliary support equipment. Develop solutions to building control issues utilizing capabilities of the campus BAS and Fault Detection Diagnostics (FDD) platform. (E)</p> <p>5 Respond to trouble calls involving emergency repair or replacement of BAS components. (E)</p> <p>6. Repair network cable and fiber connectors.</p>
40	Installation & Modification	B	<p>1. Build custom BAS control panels to replace or upgrade existing controls. Build new BAS control panels for energy conservation and alteration projects. (E)</p> <p>2. Install, configure, and program primary system BAS controllers, zone controllers, and instrumentation to replace existing systems or as part of an alteration project. (E)</p> <p>3. Assist operating engineers as needed with the installation, configuration, service, and calibration of various types of sensors including temperature, humidity, CO2, VOC, current switches and utility meters. (E)</p> <p>4. Assist operating engineers as needed with the installation, configuration, and service of various types of actuators including control relays, damper motors, control valves, isolation valves and VFDs. (E)</p>
5	Administrative Tasks	C	<p>1. On smaller projects and minor repairs, evaluate problem, extent of repair, and determine appropriate materials and equipment required to complete project. (E)</p> <p>2. Submit completed work orders to supervisor for closing out project. (E)</p> <p>3. Submit requests for tools, and equipment, materials, and parts to your supervisor. (E)</p> <p>4. Maintain BAS related documentation, e.g. modified control system schematics, operating manuals, parts lists, sequence of operation descriptions, and operator training materials. (E)</p> <p>5. Orally discuss jobs with supervisor in order to keep apprised of job progress and to resolve any problems related to the job. (E)</p> <p>6. Coordinate with customer regarding the duration of service interruption; ascertain whether critical departmental operations or services will be negatively impacted by the interruption of service; inform supervisor. (E)</p> <p>7. Provide direction to semi-skilled or unskilled workers. (E)</p> <p>8. Provide on the job training for apprentice in the maintenance and repair of all equipment and appliances, if required. Provide evaluation/feedback to supervisor regarding progress of apprentice. (E)</p>
5	General Tasks	D	<p>1. Maintain accurate hours worked on each job. (E)</p> <p>2. Operate and maintain a variety of power and/or hand tools and equipment related to the trade. (E)</p> <p>3. Ensure and transport materials, equipment and personnel to and from job site expeditiously. (E)</p> <p>4. Follow established safety procedures at all times including inspecting tools and equipment for signs of damage, malfunction or deterioration on a regular basis. (E)</p> <p>5. Upon completion of work, clean up job site and return equipment, materials, tools, radios, pagers, and Kronos wands to designated storage areas/ (E)</p> <p>6. Respond to off-hour emergencies and overtime as required. (E)</p> <p>7. Perform miscellaneous job-related duties as requested by supervisor. (E)</p>

SKAC	Duty Reference	Req/Preferred
1. Working knowledge of various air distribution systems, air conditioning systems, and the use of sensing and controlling devices. Ability to research and utilize technical literature for the development of new BAS control installations, e.g., Niagara, Siemens, Andover, Phoenix, etc...	All	Required
2. A minimum of 5 years of combined schooling and work experience with the installation, service, troubleshooting, and repair of building automation control systems including pneumatic and digital controls, and network communication devices and media.	All	Required
3. Working knowledge of the control and sequence of operations for various types of building systems, including but not limited to, large and small tonnage chilled water systems, air handling and distribution equipment, steam and hot water heating equipment, hot and chilled water distribution systems, compressed air systems, and lighting systems.	All	Required
4. Skill in usage of HVAC test instrumentation such as mutimeters, amprobes, flow hoods, flow meters, hygrometers, psychrometers and velometers.	All	Required
5. Skill in analyzing information concerning efficient and economical operation of heat, ventilation, refrigeration and air conditioning equipment in order to complete reports and/or make recommendations.	All	Required
7. Knowledge of application specific controller (ASC) configuration and start up.	All	Required
8. Ability to modify basic BAS controller programs, change program setpoints/parameters.	All	Required
9. Ability to select, install and calibrate meters and instrumentation.	All	Required
10. Ability to read and interpret schematic drawings.	All	Required
11. Working knowledge of UBC, OSHA and ADA requirements as it relates to the craft. Ability to recognize discrepancies of ADA and Fire/Life/Safety costs at each job and report to supervisor. Working knowledge of standard safe work practices.	All	Required
12. Working knowledge of electronic circuitry and OHMS Law.	All	Required
13. General knowledge of fiber optics, communication cabling, media converters, and related network components and architecture.	All	Required
14. Ability to operate trade-related hand and power tools, including achievement of operational level skills.	All	Required
15. Provide on the job training for apprentice in the maintenance and repair of all equipment and appliances if required. Provide evaluation and feedback to supervisor regarding progress of apprentice.	All	Required
16. Ability to establish and maintain cooperative working relationships with peers, subordinates, supervisors, administrators, customers, visitors and outside agencies.	All	Required
17. Ability to work independently and follow through on assignments.	All	Required
18. Oral communication skills to obtain or convey clear, concise and grammatically correct information. Skill in reading technical instructions related to the trade in order to comprehend written work instructions, equipment operating instructions, and/or other documents related to the job functions.	All	Required



Basic writing skill sufficient to complete forms and job status reports that are accurate and easy to comprehend.		
19. Working knowledge of engineering mathematic principles sufficient to understand and apply basic trade formulas.	All	Required
20. Ability to stand, crawl, walk and stoop; push, pull and lift or lower objects weighing up to 50 lbs. Ability to work indoors and outdoors, in wet or humid weather, and in fluctuating and/or extreme temperatures. Ability to work under adverse situations and conditions: e.g. dirty, noisy, etc. Ability to work in confined spaces. Ability to distinguish among colors.	All	Required
21. Must possess CA Driver's License, Class C and ability to drive a University truck or other light vehicle in the course of duties.	All	Required
22. Ability to work overtime and/or weekends. Ability to work various shifts.	All	Required
23. Working knowledge of personal computer software sufficient to review computerized building and maintenance management systems.	All	Required

#### Special Employment Designations/Requirements

Conflict of Interest:

N/A

Critical:

Continued employment contingent upon completion of satisfactory background investigation.

Driving Record:

Position is subject to the California DMV's "Pull Notice System" and continued employment is contingent upon proof of a satisfactory driving record.

Other Special Employment Requirements:

Age Requirement: Applicants must be 18 years or older to be eligible to be hired.  
Drug Test: Employment is contingent upon completion of satisfactory drug test.  
Pre-employment Physical: Employment is contingent upon completion of satisfactory pre-employment physical examination.  
TB Test: Continued employment is contingent upon completion of satisfactory TB test.

Date

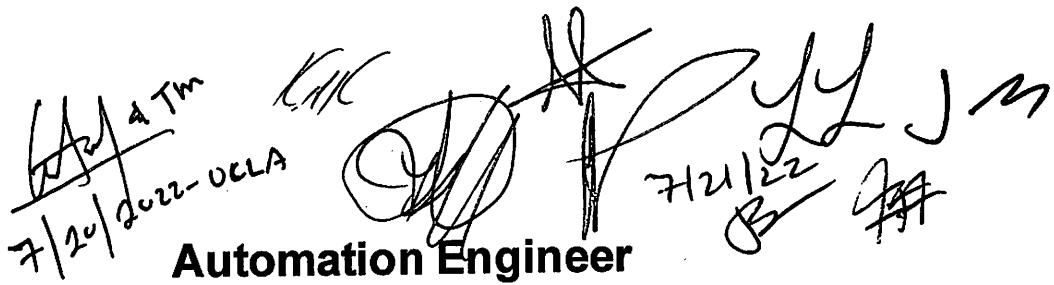
Signature of Supervisor

Name and Class Title

Date

Signature of Employee

Name and Class Title


  
**Automation Engineer**

University of California, Los Angeles  
 PROPOSED REVISION

Class Specifications – G.25  
 Automation Engineer- 8469

### CLASS CONCEPT

Automation Engineers provide Building Automation System/DDC (BAS/DDC) application, engineering, and integration support for all campus HVAC controls and interfaces, lighting, metering, and analytical systems. This includes providing engineering and integration support for HVAC projects and maintenance, providing troubleshooting and service for the BAS/DDC communications network, and collaboration with other engineering disciplines and external consultant engineers to provide complete engineering services.

This series is distinguished from other series, which may perform limited elements of BAS/DDC work, by the scope of work, and level of skill and experience required. Automation Engineers provide the full range of BAS/DDC system engineering support at all levels of complexity.

*EXAMPLES OF DUTIES MAY INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:*

#### Maintenance & Repair

- Maintain BAS/DDC controllers and server databases to insure building primary and secondary control systems effectively perform the functions of environmental control, laboratory safety, energy conservation and alarm notification.
- Design and develop controller software programs that comply with University standard sequences of operations for HVAC, laboratory pressurization, central plant systems, energy efficiency, utilities metering, and critical alarms notifications.
- Interface with campus Information Technology (IT) departments for troubleshooting and resolution of network communication problems. Collaborate with IT for interface of new controllers and users being added to the network.
- Inspect the building mechanical systems and auxiliary support equipment. Develop solutions to building control problems utilizing the capabilities of automated building control systems.
- Respond to trouble calls involving an emergency repair or replacement of BAS/DDC controllers or network infrastructure components.

#### Installation & Modification

- Install, service, replace, and repair various BAS/DDC communications components such as managed/unmanaged Ethernet switches, BACnet and LonWorks routers, and fiber hubs.
- Install primary system controllers, unitary zone controllers and instrumentation devices to replace an existing system or as part of an alteration project.

**December 2013**

**Automation Engineer**

- Install, maintain, service, replace, repair and/or calibrate various types of sensors including temperature, humidity, CO2, VOC, current switches and utility meters.
- Install, maintain, service, replace, repair and/or adjust various types of actuators including control relays, damper motors, control valves, isolation valves and VFDs.

**MINIMUM QUALIFICATIONS**

Applicants for positions in this series are expected to possess the skills, knowledge and abilities essential to the successful performance of the duties assigned to the position.

7/26/2022  
UCLA  
ATM

*[Handwritten signatures and initials]*  
7/21/22  
JLM

# University of California Los Angeles

## Job Description

The Job Description form is used to record the duties, responsibilities, qualifications sought and fiscal impact of classified and non-classified positions. This information is the basis for determining the title, salary rate, and Fair Labor Standards Act exemption status for positions. To achieve these purposes, it is essential that detailed and exact information pertaining to current duties, responsibilities, and qualifications be accurately recorded on this form.

### Employee Details

Employee First Name:

Employee Last Name:

Employee ID:

### Position Information

JA Number:

Effective Date:

Department Code / Name:

Organization Code / Name:

Fund Source:

5000-ADMINISTRATIVE VICE CHANCELLOR

### Department HR Contact

Name:

Email Address:

Phone Number or Extension:

### Position Title

Title Code:

Title:

Approved Working Title:

8469

AUTOMATION ENGINEER

Automation Engineer

Approved Program:	
Approved Grade Level:	N/A
Range Minimum:	
Range Maximum:	
Approved Employee Relations (ER) Code:	E-All others, not confidential
Approved Bargaining Unit (BU) Code:	K4-Skilled Crafts-UCLA
Approved Step Level:	
FLSA Status:	Non-Exempt
Appointment Type:	Career
Is this a Master Job Description?	Yes

#### Reporting Information

Supervisor Name:	
Supervisor Payroll Title:	SUPERVISOR (FUNCTIONAL AREA)
Supervisor Working Title:	
Dept. Head Name:	
Dept. Head Payroll Title:	DIRECTOR (FUNCTIONAL AREA)
Dept. Head Working Title:	

#### Job Summary

Job Summary Statement:	Under the general direction of the SUPERVISOR (FUNCTIONAL AREA), this position provides application engineering and software program development for campus Building Automation Systems (BAS), HVAC, and building service systems. This position also coordinates with campus Utilities staff to provide BAS engineering support for HVAC maintenance and projects. The Automation Engineer provides troubleshooting and service for the BAS communications network. Coordinates with other engineering disciplines and external consultant engineers to provide complete engineering services. The Automation Engineer also establishes
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design and application practices that implement energy conservation and sustainable design. This position communicates with staff, management and the campus community in an effective and professional manner.

Type of Supervision Received/Exercised: Under the direction of the SUPERVISOR AND DIRECTOR, the Automation Engineer's work is assigned and reviewed on a daily basis.

### Supervisory Information

Does this job have supervisory responsibilities? No

# of Career FTE's this position supervises:

# of Career FTE's supervised through subordinates:

Extent of Supervisory Responsibilities:

### Fiscal Responsibility

Amount:

Type:

Amount:

Type:

Amount:

Type:

### Core Functions & Duties

% of Time	Core Function	Function Letter	Duty Statements
60	Maintenance & Repair	A	<p>1. Maintain the campus Building Automation System (BAS) controllers, server databases, and applications to insure that building primary and secondary control systems effectively perform the functions of environmental control, laboratory safety, energy conservation and alarm notification in coordination with the Operating Engineer. (E)</p> <p>2. Design and develop controller software programs that comply with University standard sequences of operations for HVAC, laboratory pressurization, central plant systems, utilities metering and critical alarms notifications. (E)</p> <p>3. Interface with campus Information Technology (IT) departments for troubleshooting and resolution of network communication problems. Collaborate with IT for interface of new controllers and user accounts being</p>

			<p>added to the network. (E)</p> <p>4. Develop solutions to building control problems utilizing the capabilities of the campus BAS. (E)</p> <p>5. Respond to trouble calls involving emergency repair or replacement of BAS major system controllers or unit controllers. (E)</p>
30	Installation & Modification	B	<p>1. Install, service, replace and repair various BAS network communications components such as IP, Ethernet, BACnet and LonWorks network switches, routers and hubs. (E)</p> <p>2. Install primary system controllers, unitary zone controllers and instrumentation devices to replace an existing system or as part of an alteration project. (E)</p> <p>3. Assist operating engineers as needed with the installation, configuration, service, and calibration of various types of sensors including temperature, humidity, CO2, VOC, current switches. (E)</p> <p>4. Assist operating engineers as needed with the installation, configuration, and service of various types of actuators including control relays, damper motors, control valves, and isolation valves. (E)</p> <p>5. Provide in-house support to contractors to ensure all system integration and network architecture meet with campus standards and policies.</p>
5	Administrative Tasks	C	<p>1. On larger projects and major repairs, analyze problems, extent of repair, and determine appropriate materials and equipment required to complete project. (E)</p> <p>2. Submit completed work orders to supervisor for closing out project. (E)</p> <p>3. Request tools and equipment, materials, parts, etc., and submit to supervisor. (E)</p> <p>4. Maintain automatic control system documentation, e.g. modified control system schematics, operating manuals, parts lists, sequence of operation descriptions, and operator training materials. (E)</p> <p>5. Orally discuss jobs with supervisor in order to keep apprised of job progress and to resolve any problems related to the job. (E)</p> <p>6. Coordinate with customer regarding the duration of service interruption; ascertain whether critical departmental operations or service will be negatively impacted by the interruption of service; inform supervisor. (E)</p> <p>7. Provide technical direction to semi-skilled or unskilled workers. (E)</p> <p>8. Provide on the job training for apprentice in the maintenance and repair of all equipment and appliances, if required. Provide evaluation/feedback to supervisor regarding progress of apprentice. (E)</p> <p>9. Make recommendations for modifications and enhancement to the campus standards.</p>
5	General Tasks	D	<p>1. Maintain accurate hours worked on each job. (E)</p> <p>2. Operate and maintain a variety of power and/or hand tools and equipment related to the trade. (E)</p> <p>3. Ensure and transport materials, equipment and personnel to and from job site expeditiously. (E)</p> <p>4. Follow established safety procedures at all times, including inspecting tools and equipment for signs of damage, malfunction, or deterioration on a regular basis. (E)</p> <p>5. Upon completion of work, clean up job site and return equipment, materials tools, radios, pagers, and KRONOS wands to designated storage areas.(E)</p> <p>6. Respond to off-hour emergencies and overtime as required. (E)</p> <p>7. Perform miscellaneous job-related duties as requested by supervisor. (E)</p>

**SKACs**

SKAC	Duty Reference	Req/Preferred
1. Working knowledge of Tridium and Niagara framework. Working knowledge of building automation system programming utilizing block coding (i.e. Niagara Work Bench) and/or line coding (i.e. Siemens PPCL) methodology. Ability to develop a systems control program from a written sequence of operation.	All	Required
2. A minimum of 10 years combined schooling and work experience with the installation, configuration, service, troubleshooting, and repair of building automation control systems including pneumatic and electronic controls. Distech and/or Siemens preferred.	All	Required
3. Working knowledge of the control and sequence of operations for various types of building systems, including but not limited to, large and small tonnage chilled water systems, air handling and distribution equipment, steam and hot water heating equipment, hot and chilled water distribution systems, compressed air systems, and lighting systems.	All	Required
4. Competency in the use of test instrumentation such as multimeters, oscilloscopes, network sniffers, and capture tools.	All	Required
5. Skill in analyzing information concerning efficient and economical operation of heating, ventilation, refrigeration and air conditioning equipment in order to complete reports and/or make recommendations.	All	Required
6. Familiarity with OSI model network layers and be able to troubleshoot network related issues.	All	Required
7. Niagara 4 Technical Certification	All	Required
8. Ability modify sequences of operation and modify controller programs and systems to accommodate remodel projects in buildings.	All	Required
9. Knowledge of energy management control strategies.	All	Required
10. Ability to select, install and calibrate meters and instrumentation.	All	Required
11. Ability to read and interpret schematic drawings.	All	Required
12. Working knowledge of UBC, OSHA, and ADA requirements as it relates to the craft. Ability to recognize discrepancies of ADA and Fire/Life/Safety costs at each job and report to supervisor; working knowledge of standard safe work practices.	All	Required
13. Working knowledge of electronic circuitry and OHMS law.	All	Required
14. Ability to operate trade-related hand and power tools, including achievement of operational level skills.	All	Required
15. Provide on the job training for apprentice in the maintenance and repair of all equipment and appliances if required. Provide evaluation and feedback to supervisor regarding progress of apprentice.	All	Required
16. Ability to establish and maintain cooperative working relationships with peers, subordinates, supervisors, administrators, customers, visitors and outside agencies.	All	Required
17. Ability to work independently and follow through on assignments.	All	Required

18. Oral communication skills to obtain or convey clear, concise and grammatically correct information; basic writing skill sufficient to complete forms and job status reports that are accurate and easy to comprehend. Skill in reading technical instructions related to the trade in order to comprehend written work instructions, equipment operating instructions, and/or other documents related to the job functions.	All	Required
19. Working knowledge of engineering mathematic principles sufficient to understand and apply basic trade formulas.	All	Required
20. Ability to stand, crawl, walk and stoop; push, pull and lift or lower objects weighing up to 50 lbs. Ability to work indoors and outdoors, in wet or humid weather, and in fluctuating and/or extreme temperatures. Ability to work under adverse situations and conditions, e.g. dirty, noisy, etc. Ability to work in confined spaces. Ability to distinguish among colors.	All	Required
21. Possess California Driver's License, Class C; ability to drive a University truck or other light vehicle in the course of duties.	All	Required
22. Ability to work overtime and/or weekends; ability to work various shifts.	All	Required

#### Special Employment Designations/Requirements

Conflict of Interest:

N/A

Critical:

Continued employment contingent upon completion of satisfactory background investigation.

Driving Record:

Position is subject to the California DMV's "Pull Notice System" and continued employment is contingent upon proof of a satisfactory driving record.

Other Special Employment Requirements:

Age Requirement: Applicants must be 18 years or older to be eligible to be hired.  
Drug Test: Employment is contingent upon completion of satisfactory drug test.  
Pre-employment Physical: Employment is contingent upon completion of satisfactory pre-employment physical examination.  
TB Test: Continued employment is contingent upon completion of satisfactory TB test.

Date

Signature of Supervisor

Name and Class Title

Date

Signature of Employee

Name and Class Title



*Handwritten notes and signatures at the top of the page:*  
G. J. & Tm  
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7/21/22  
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**University of California Los Angeles**  
**Job Description**

The Job Description form is used to record the duties, responsibilities, qualifications sought and fiscal impact of classified and nonclassified positions. This information is the basis for determining the title, salary rate, and Fair Labor Standards Act exemption status for positions. To achieve these purposes, it is essential that detailed and exact information pertaining to current duties, responsibilities, and qualifications be accurately recorded on this form.

**Employee Details**

Employee First Name:

Employee Last Name:

Employee ID:

**Position Information**

JA Number:

Effective Date:

Department Code / Name: 3435-UTILITIES

Organization Code / Name: 5000-ADMINISTRATIVE VICE CHANCELLOR

Fund Source: N/A

**Department HR Contact**

Name:

Email Address:

Phone Number or Extension:

**Position Title**

Title Code: 8239

Title: OPER ENGR INSTRUMENT CNTRL TCHN

Approved Working Title: Instruments and Controls Technician

Approved Program:

Approved Grade Level: N/A

Range Minimum:

Range Maximum:

Approved Employee Relations (ER) Code: E-All others, not confidential



Approved Bargaining Unit (BU) Code:	K4-Skilled Crafts-UCLA
Approved Step Level:	
FLSA Status:	Non-Exempt
Appointment Type:	Career
Is this a Master Job Description?	Yes

#### Reporting Information

Supervisor Name:	
Supervisor Payroll Title:	SUPERINTENDENT, PHYSICAL PLANT, SENIOR
Supervisor Working Title:	Physical Plant Superintendent, Sr.
Dept Head Name:	
Dept Head Payroll Title:	DIRECTOR (FUNCTIONAL AREA)
Dept Head Working Title:	Director of Energy Services & Building Controls

#### Job Summary

Job Summary Statement:	<p>The Energy Services &amp; Building Controls Instrumentation and Control unit (I&amp;C) is responsible for the renovation, maintenance, repair, and operation of the CUDA system and measurement device inventory. Building Controls I&amp;C is responsible for providing mission-critical utility services to keep UC Los Angeles running in support of the campus Academic Plan and academic program needs. Utilities provides electricity, chilled water, steam, gas, and water to more than 100 buildings, totaling over 23 million gross square feet of campus space. Energy Services has 40+ FTE and contractors and is responsible for \$60+ million budget.</p> <p>Under general supervision, perform journey level controls and instrumentation work. Install, maintain, and service industrial sensors and components of process control, utility monitoring and data acquisition systems on Campus Utility Data Acquisition (CUDA) and HVAC control systems.</p>
Type of Supervision Received/Exercised:	Under the direction of the Sr. Superintendent, work is assigned and reviewed on a daily basis.

#### Supervisory Information

Does this job have supervisory responsibilities?	No
# of Career FTE's this position supervises:	
# of Career FTE's supervised through subordinates:	
Extent of Supervisory Responsibilities:	

**Fiscal Responsibility**

Amount:

Type:

Amount:

Type:

Amount:

Type:

**Core Functions & Duties**

% of Time	Core Function	Function Letter	Duty Statements
35	Install and Commission Instrumentation	A	<ol style="list-style-type: none"><li>1. Install, commission, calibrate, maintain, and repair industrial instruments (electronic, pneumatic, &amp; mechanical) on the Campus Utility Data Acquisition (CUDA) systems. (E)</li><li>2. Install and maintain components of process control, communication and data acquisition systems. (E)</li><li>3. Advise, make recommendations and communicate with UCLA Energy Services Staff to specify instruments, meters, process control equipment, and data acquisition systems. (E)</li><li>4. Support the Energy Services billing function by retrieving data from local meters and investigating discrepancies in metered usage. (E)</li><li>5. Procure, install, and commission transmitters (temperature, pressure, flow) and associated monitoring systems, including Thermistor and RTD, temperature elements, pressure gauges, differential pressure sensors, and thermal flow meters (electromagnetic ultra-sonic, and vortex shedding). (E)</li><li>6. Purchase required parts and equipment. Contact vendors and other agencies to determine the availability, applicability, and performance of components. Inspect and commission components installed by contractors. (E)</li><li>7. Calibrate and maintain complex analytical measurement devices such as, but not limited to, pH, Turbidity meters and BTU meters. Ensure meters and instruments are performing per "Expected" requirements for the systems installed on. (E)</li></ol>
25	Networking and Cabling Communications Protocols	B	<ol style="list-style-type: none"><li>1. Pull, route, and label CAT5e, COTG cable. (E)</li><li>2. Test and troubleshoot issues with network communication. (E)</li><li>3. Designing and installation solutions, but not limited to structured</li></ol>

			data cabling, wireless networks, and end-to-end routing and connectivity. (E)
25	Inspection and Maintenance	C	<p>1. Troubleshoot controls/electronic systems from the field device to the input of the recording device. (E)</p> <p>2. Analyze problems and possible impacts to the CUDA system. (E)</p> <p>3. Repair, calibrate and maintain test equipment. (E)</p> <p>4. Inspect, service, repair and replace I&amp;C devices throughout the Utility distribution systems. (E)</p>
15	Data Validation and Record Keeping	D	<p>1. Review sample data acquired from the process control and data acquisition systems, program controllers and test equipment. (E)</p> <p>2. Compare electronic data displayed and archived in the CUDA system to the values indicated by the field devices and meters, reporting any discrepancies and taking corrective action. (E)</p> <p>3. Maintain electronic records of work performed (e.g., meter and instrument calibration), material uses, and associated costs. (E)</p> <p>4. Support the Energy Services billing team by investigating unusual usage patterns and customer inquiries, ensuring that new service connections to utility systems are properly metered, commissioned, and reading local utility meters when devices are not provided with remote monitoring capability. (E)</p>

#### SKACs

SKAC	Duty Reference	Req/Preferred
Demonstrated journey level skills in industrial instrumentation, maintenance, and repair such as those found in water/wastewater treatment systems and/or central heating & cooling plant systems.	All	Required
Demonstrated journey level skills and knowledge to install, maintain, and service industrial instruments and components of process control, telemetry and data acquisition systems in Campus Utility Data Acquisition systems.	All	Required
Knowledge of theory and practice of the principles of electronics, computer systems, pneumatics, hydraulics, electrical systems, networking concepts, and structured cabling.	All	Required
Skill in commissioning and calibration of, but not limited to, pressure, temperature, flow and level measurement sensors. Knowledge of installation and maintenance of Variable Frequency Drives (VFD's).	All	Required
Knowledge of process control components including: loop controllers, programmable logic controllers (PLC's), alarm panels, and pneumatic systems.	All	Required
Skill in diagnosing PLC faults and network communication problems.	All	Required
Computer skills to configure and operate a personal computer and to use complex software programs.	All	Required
Skill to analyze problems and possible impacts to the Utilities network and communication systems.	All	Required



Interpersonal, oral, and written communication skills.	All	Required
Ability to understand and interpret technical data, mechanical and structural specifications, and blueprints.	All	Required
Customer service skills.	All	Required
Organizational skills to understand and meet established unit goals and objectives, and meet project deadlines within an estimated budget.	All	Required
Knowledge of building codes regarding the installation of electronic/pneumatic systems.	All	Required
Knowledge of approved safety devices and practices.	All	Required
Basic knowledge of networking concepts, network protocols, and emerging technologies.	All	Required
Experience with network protocols TCP/IP, IP 4/6, and Modbus TCP. Experience with data cabling, network testing, routing, and VLAN administration.	All	Required
Additional physical demands include the ability to lift up to 50 lbs, with or without assistance, of electrical equipment and material. Climb ladders, on top of machinery and equipment, crawl, stoop, bend and work in tight, cramped areas.	All	Required
Must possess and maintain a valid California Driver's License, and ability to operate a University vehicle in the course of job duties.	All	Required

#### Special Employment Designations/Requirements

Conflict of Interest:

N/A

Critical:

Continued employment contingent upon completion of satisfactory background investigation.

Driving Record:

Position is subject to the California DMV's "Pull Notice System" and continued employment is contingent upon proof of a satisfactory driving record.

Other Special Employment Requirements:

Age Requirement: Applicants must be 18 years or older to be eligible to be hired.  
Drug Test: Employment is contingent upon completion of satisfactory drug test.  
Hepatitis Test: Employment is contingent upon completion of satisfactory physical examination (including Hepatitis A testing/immunization).  
Physical: Employment is contingent upon completion of satisfactory physical examination.  
TB Test: Continued employment is contingent upon completion of satisfactory TB test.

Date

Signature of Supervisor

Name and Class Title

*Date*

*Signature of Employee*

*Name and Class Title*



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## University of California Los Angeles

### Job Description

The Job Description form is used to record the duties, responsibilities, qualifications sought and fiscal impact of classified and nonclassified positions. This information is the basis for determining the title, salary rate, and Fair Labor Standards Act exemption status for positions. To achieve these purposes, it is essential that detailed and exact information pertaining to current duties, responsibilities, and qualifications be accurately recorded on this form.

#### Employee Details

Employee First Name:

Employee Last Name:

Employee ID:

#### Position Information

JA Number:

Effective Date:

Department Code / Name: 3415-MAINTENANCE AND ALTERATIONS

Organization Code / Name: 5000-ADMINISTRATIVE VICE CHANCELLOR

Fund Source:

#### Department HR Contact

Name:

Email Address:

Phone Number or Extension:

#### Position Title

Title Code:

Title:	Plumber- Sprinkler Fitter
Approved Working Title:	Sprinkler Fitter
Approved Program:	
Approved Grade Level:	
Range Minimum:	
Range Maximum:	
Approved Employee Relations (ER) Code:	E-All others, not confidential
Approved Bargaining Unit (BU) Code:	K4-Skilled Crafts-UCLA
Approved Step Level:	N/A
FLSA Status:	Non-Exempt
Appointment Type:	Career
Is this a Master Job Description?	Yes

#### Reporting Information

Supervisor Name:	Plumbing Supervisor
Supervisor Payroll Title:	Plumbing Supervisor
Supervisor Working Title:	Plumbing Supervisor
Dept Head Name:	Director, Maintenance & Alterations
Dept Head Payroll Title:	DIRECTOR (FUNCTIONAL AREA)
Dept Head Working Title:	Director of Maintenance and Alterations

#### Job Summary

Job Summary Statement:	Under the direction of the Manager and/or Supervisor of the Plumbing Shop, perform the full range of journey level functions of a Sprinkler Fitter. Inspect, maintain, repair, design, modify and alter campus infrastructure to include all buildings, common areas equipment, building systems to ensure the efficient operation of the campus wide fire sprinkler
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	<p>systems. Assemble, install, and repair pipes composed of metals such as iron, steel, brass and copper. Assemble, install, and repair pipe fittings valves, fire sprinkler equipment. Cut, thread, and groove various types of piping. Inspect and maintain various fire protection systems, wet, dry, pre-action, deluge fire sprinkler systems, including small hose connections, standpipe systems, private fire service mains and their appurtenances, including hydrants, monitor nozzles, water spray systems, foam water systems, fire pumps, water storage tanks, low, medium, and high expansion foam systems, and water mist systems. Operate, inspect and maintain various tools of the fire sprinkler fitting trade. Perform finish fire sprinkler and trim work. Read and interpret blueprints and develop layouts. Clean, maintain job sites and ensure good safety practices are observed on the job site. Operate tools and equipment in compliance with manufactures guidelines and University policies. Responsible for communicating job-related problems to appropriate supervisory levels in order to resolve on-site job concerns.</p>
Type of Supervision Received/Exercised:	Under the direction of the Manager, Supervisor, and/or Lead Plumber work is assigned and reviewed on a daily basis.

### Supervisory Information

Does this job have supervisory responsibilities?	No
# of Career FTE's this position supervises:	N/A
# of Career FTE's supervised through subordinates:	N/A
Extent of Supervisory Responsibilities:	

### Fiscal Responsibility

Amount:	
Type:	
Amount:	
Type:	
Amount:	
Type:	

### Core Functions & Duties

% of Time	Core Function	Function Letter	Duty Statements
50	Maintenance and Repair	A	<ol style="list-style-type: none"> <li>1. Inspect piping system for signs of damage, malfunctions, deterioration, or needs for adjustments.</li> <li>2. Maintain and repair piping systems including fire sprinkler water mains and various fire sprinkler protection systems.</li> <li>3. Cut, thread, and groove various types of pipe.</li> <li>4. Maintain fire protection; wet, dry, pre-action, deluge fire sprinkler systems, pumps, valves and check valves.</li> <li>5. Inspect, document, and conduct appropriate testing, quarterly and annual.</li> <li>6. Respond to trouble calls involving an emergency, urgent or routine repairs or replacements</li> <li>7. Lubricate and or adjust, gaskets, seals, expansion joints, traps, screens, filters, tools, equipment, and fixtures. Adjust and or replace valves, meters, pressure regulators and packing glands. (E)</li> </ol>
40	Installation and Modification	B	<ol style="list-style-type: none"> <li>1. Work from blueprints, drawings or oral instructions in the construction, modification, installation of piping and fire protection systems in order to meet requirements of construction and alteration projects. Report discrepancies in existing blueprints to Supervisor or Lead in order to keep existing as-built as current as possible</li> <li>2. Install and maintain fire protection systems in accordance with, NFPA 13, NFPA 13-R, 14, 20, 22, 24 &amp; NFPA 25 standards and all applicable codes.</li> <li>3. Install and or supervise the installation, service and repair of wet, dry, pre-action, Halon, FM-200, AFFF systems, Deluge, and CO2 Systems.</li> <li>4. Install and maintain wet, dry, pre-action, deluge fire sprinkler systems, pumps, valves and, check valves.</li> <li>5. Assemble, install and repair valves, pipe fittings, and related fire protection equipment in accordance with current regulations.</li> <li>6. Install temporary and permanent piping of every description in connection with building and construction work, excavation and underground construction.</li> <li>7. Install fire stand pipes, fire pumps, pressure, storage tanks, valves and all related piping for fire sprinkler equipment.</li> </ol>
5	Administrative Tasks	C	<ol style="list-style-type: none"> <li>1. Evaluate problems, extent of repair and determine appropriate material and equipment required to complete project.</li> <li>2. Submit completed work orders to supervisor for closing out of project.</li> <li>3. Orally discuss jobs with supervisors and Leads in order to keep them apprised of job progress and to resolve any problem related to job.</li> <li>4. Provide direction to semi-skilled and/or unskilled workers.</li> <li>5. Identify areas where asbestos abatement is required to perform the job duties assigned and submit to Supervisor or Lead.</li> </ol>



5	General Tasks	D	1. Maintain accurate hours worked on each job. (M) 2. Operate and maintain a variety of power and/or hand tools and equipment related to the Sprinkler Fitter trade.(E) 3. Ensure and transport materials, equipment, personnel to and from the job site expeditiously.(E) 4. Follow established safety procedures at all times including inspecting tools and equipment for signs of damage, malfunction or deterioration on a daily basis.(E) 5. Upon completion of work, clean up job site and return equipment, materials, tools, radios, pagers, and phones to designated storage areas.(E) 6. Respond to off-hour emergencies and overtime as required.(E) 7. Perform miscellaneous job-related duties as assigned by the Manager, Supervisor or Lead.(E)
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#### SKACs

SKAC	Duty Reference	Req/Preferred
1. Must have completed a four year sprinkler fitter apprenticeship program or equivalent education and work experience.	All	Required
2. Skill and ability to operate pipe machines, drills, grinders, and other hand and/ or power tools needed to perform skilled related job tasks.	All	Required
3. Knowledge of codes and safety procedures NFPA 13, NFPA 13-R, 14, 20, 22, 24 & NFPA 25 standards.	B	Required
4. Ability to join dissimilar metals using the proper methods, techniques, and materials.	All	Required
5. Ability to work in confined spaces (crawlspaces, ceilings, shafts and under floors) and to gain access to areas.	All	Required
6. Ability to stand, crawl, walk and stoop; push, pull and lift or lower objects weighing up to 50 lbs. Ability to work indoors and outdoors, in wet or humid weather, and in fluctuating and/or extreme temperatures. Ability to work under adverse situations and conditions, e.g., dirty, noisy, etc. and ability to distinguish colors.	All	Required
7. Skill in writing simple English phrases using correct grammar and spelling to complete reports that are accurate and easy to comprehend.	All	Required
8. Working knowledge of asbestos removal.	All	Can be trained
9. Oral communication skills to obtain or convey clear, concise and grammatically correct information.	All	Required
10. Ability to read, interpret and understand technical language in specifications, schematics and blueprints.	All	Required
11. Skill in adding, subtracting, multiplying and dividing 4-digit numbers and fractions in order to calculate layouts and offsets, and provide accurate cost calculations/estimates.	All	Required
12. Ability to track jobs in order to complete and prioritize requirements	All	Required
13. Fill out all Inspection, correction and follow up paperwork for all of the fire life safety systems in a timely manner.	All	Required



14. Possess the ability to train others as required by UCLA.	All	Required
15. Shall participate in the on-call program for emergency and off hour response.	All	Required
16. Ability to work overtime and weekends and ability to work various shifts.	All	Required
17. Ability to work in confined spaces wearing full protective respirator equipment.	All	Required
18. Ability to work independently and follow through on assignments.	All	Required
19. Must possess a valid California State Journeyman Sprinkler Fitter License and maintain its active status as a minimum requirement of employment.	All	Required
20. Cal Fire Automatic Fire Extinguishing Systems Sprinkler Fitter Certification	All	Required
21. Working knowledge of current Fire Protection systems in accordance with, NFPA 13, NFPA 13-R, 14, 20, 22, 24 & NFPA 25 standards.	All	Required
22. Possess a C36 or City of Los Angeles or State of California Journeyman Plumbing License.	All	Preferred
23. Possess a backflow license.	All	Preferred
24. Possession of a valid C16 license.	All	Preferred
25. Possession of a valid CA Driver's License and ability to operate a University vehicle in the course of performing job duties.	All	Required

#### Special Employment Designations/Requirements

Conflict of Interest:

N/A

Critical:

Continued employment contingent upon completion of satisfactory background investigation.

Driving Record:

Position is subject to the California DMV's "Pull Notice System" and continued employment is contingent upon proof of a satisfactory driving record.

Other Special Employment Requirements:

Age Requirement: Applicants must be 18 years or older to be eligible to be hired.  
Drug Test: Employment is contingent upon completion of satisfactory drug test.  
Pre-employment Physical: Employment is contingent upon completion of satisfactory pre-employment physical examination.  
TB Test: Continued employment is contingent upon completion of satisfactory TB test.

Date

Signature of Supervisor

Name and Class Title

*Date*

*Signature of Employee*

*Name and Class Title*

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7/20/2022 - UCA  
JH/TM

## Plumber

7/21/22  
JM  
K  
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LJ  
JH

University of California, Los Angeles  
PROPOSED NEW TITLE IN SERIES

### Class Specifications - G.25

Supervising Plumber - 8256  
Lead Plumber - 8257  
Plumber - 8258  
Apprentice Plumber - 8259  
Sprinkler Fitter - 8260

### SERIES CONCEPT

Plumber is a full journey level classification performing skilled plumbing and pipefitting; to install, repair and maintain a variety of complex equipment and systems and to monitor and operate campus water, waste, storm water, and gas utility systems. This series is distinguished from other series, which may perform more limited plumbing work, by the scope of work and level of skill required. Positions at this level may direct the work of less skilled helpers on projects and train apprentices; and may work independently or in conjunction with other crafts. Plumbers prepare estimates, plan and manage their own projects within allotted budgets; ensure that work is in accordance with relevant codes; may be required to use computers or microprocessor based tools/equipment; may respond to daily service calls and off hour emergencies; may occasionally be assigned to other duties for training purposes or to meet technological changes or emergencies; may drive a truck or other light vehicle in the course of these duties.

### EXAMPLES OF DUTIES MAY INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

- Performs skilled plumbing and pipefitting, working with copper, brass, stainless steel, galvanized, ductile iron, black iron, glass, ceramic, plastic, vitrified clay, and other pipe and pipe fittings; lays out, fabricates, cuts, bends, shapes, threads, solders, welds, screws, bolts, glues, caulks, packs and otherwise joins pipe and pipe fittings;
- Installs, repairs, and maintains de-ionized, distilled, and chilled water, heating hot water, high pressure steam, condensate, sewer, acid waste, natural gas, compressed air, vacuum, storm drainage and swimming pool plumbing and other piping, systems and components; installs and repairs pipe insulation;
- Installs, repairs, and maintains specialized systems, equipment and components such as campus main utilities, water deionization and distillation, gas fired heating, steam and hot water boilers, pumps, valves, heat transfer devices;
- Installs, repairs, and maintains plumbing fixtures and appurtenances such as water heaters, sinks, toilets, showers, bathtubs, sump pumps, water softeners, garbage disposals, and other common plumbing fixtures;
- Installs, repairs, and maintains instrumentation, switches and controls, and valves related to control of campus utilities, heating and cooling water, steam, air flow, gas fired heaters, and other processes, including electrical and mechanical elements;

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February 2009

Plumber

- Measures, cuts, threads, using hand and power tools or machines such as pipe cutters, pipe-threading machines or cutting torch.
- Performs troubleshooting and analysis to identify problems; makes necessary corrections or refers to other skilled trades as appropriate;
- Monitors utility system performance and makes operational adjustments;

- Inspects and conducts preventive maintenance and routine service on systems, main utilities, and equipment;
- Prepares detailed estimates including labor and materials, and prepares lists of materials;
- Prepares and maintains a variety of records and paperwork regarding work performed; collects data and maintains logs regarding utility system use and performance;
- Studies building plans and inspects structures to assess material and equipment needs, to establish the sequence of pipe installations, and to plan installation around obstructions such as structural steel; review blueprints and building codes and specifications to determine work details and procedures
- Uses personal protective gear such as safety glasses, gloves, respiratory protection; places or erects barricades, warning signs, clearance tags, and other devices to protect self and others;
- Directs the work of unskilled and semi-skilled helpers assisting in projects, assuring that proper safety practices are followed;
- Operates a variety of hand and power tools and equipment including pneumatic and electric hand tools;
- Coordinates work with customers, project managers, other crafts, and inspectors; inspects job sites and reviews detailed plans, drawings and oral directions to plan work;
- Maintains tools and equipment.

## **CLASS CONCEPTS**

### **Supervising Plumbing**

Under direction, incumbents supervise and coordinate the work of Lead Plumbers, Plumbers, and Apprentice Plumbers. Incumbents typically make hiring selections among job applicants, insure that new and existing staff receive proper training; make daily work schedules and assignments; review work performed at various stages and upon completion; evaluate the performance of subordinate employees; recommend or initiate personnel actions such as promotions, transfers, and disciplinary measures; and maintain various work records including written and oral reports; prepare estimates of man-hours, costs and materials required.

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### **Plumber**

#### **Lead Plumber**

Under supervision, incumbents serve as work leaders for plumbers. Incumbents typically transmit and explain work orders; help workers or supervisors solve work problems; insure that assignments are completed satisfactorily; provide estimates; maintain time and material records; and, perform the full range of duties outlined in the series concept. Additionally, incumbents may have limited responsibilities for making or modifying daily work assignments and for evaluating personnel.

#### **Plumber**

Under supervision, incumbents perform the full range of duties as outlined in the series concept.

#### **Sprinkler Fitter**

Under supervision, incumbents perform the full range of duties as outlined in the series concept and perform the full range of journey level functions of a Sprinkler Fitter. Inspect, maintain, repair, design, modify and alter campus infrastructure to include all buildings, common areas equipment, building systems to ensure the efficient operation of the campus wide fire sprinkler systems. Assemble, install and repair pipe fittings, valves related to fire sprinkler equipment. Inspect and maintain various fire protection systems, wet, dry, pre-action, deluge fire sprinkler systems, including small hose connections, standpipe systems, private fire service mains and their appurtenances, including hydrants, monitor nozzles, water spray systems, foam

water systems, fire pumps, water storage tanks, low, medium, and high expansion foam systems and water mist systems. Maintain all applicable licenses and certifications required to perform Sprinkler Fitter duties.

### **Apprentice Plumber**

Under close supervision, incumbents participate in a prescribed program of work experience and vocational education and upon completion progress to the level of Plumber. Incumbents typically assist journey level Plumbers in the performance of the full range of duties outlined in the series concept.

### **MINIMUM QUALIFICATIONS**

Applicants for positions in the Plumber series are expected to possess a certificate of completion from a recognized apprenticeship program, accredited trade school or the equivalent amount of training and experience comparable to journey level crafts status as a Plumber and must possess either a valid City of Los Angeles Journeymen Plumbing License or State of California Journeymen Plumbing License. A journey-level Plumber must have working knowledge of OSHPD and Joint Commission regulations, UBC, OSHA and ADA requirements as it relates to the function.

Sprinkler Fitters are expected to possess a valid C16 license in addition to the minimum qualifications.

Apprentice Plumbers attend classroom training outside of work hours and learn the job under the direction of journey level employees and supervisors, while performing increasingly responsible elements of the work in a limited capacity. Incumbents are required to demonstrate mastery of each stage of the apprenticeship prior to moving to the next stage.



# High Voltage Electrician

High Voltage Electrician  
UCLA Series Concepts  
Class Specifications - G.15

7/21/22  
UCLA

7/21/22  
M  
FAR  
LL

Lead High Voltage Electrician - 7783  
High Voltage Electrician - 8154

June 2010

## SERIES CONCEPT

To troubleshoot, repair, install and service medium and high voltage electrical systems and associated equipment; to operate, inspect and perform preventive maintenance on medium and high voltage overhead and underground distribution systems; to prepare estimates; and plan and manage own projects within allotted budgets; and to perform related work required.

## DISTINGUISHING CHARACTERISTICS

High Voltage Electrician is a full journey level classification performing skilled high voltage electrical work in accordance with the techniques of the trade, based on completion of a recognized apprenticeship or its equivalent. This classification is distinguished from other classifications which may perform limited elements of electrical work by its focus on voltage systems above 480 volts and equipment, and by the scope of work and level of skill required. Positions at this level may direct the work of less skilled helpers on projects, and train apprentices; and may work independently or in conjunction with other crafts

## EXAMPLES OF DUTIES

The following duties are intended to illustrate examples of duties typically performed by incumbents in this classification. Individual incumbents may not perform all of the duties listed, nor are all of the duties an incumbent will perform necessarily listed.

- Troubleshoots and repairs overhead and underground distribution systems, including transformers, circuit interrupters, reclosers, capacitors, voltage regulators, medium voltage switches, utility poles, and supporting hardware;
- Replaces and installs medium voltage overhead and underground electrical circuits and terminations;
- Fabricates and installs a variety of components including but not limited to duct banks; cable runs, concrete pads for electrical equipment, risers, transformer banks, and low voltage electrical panels;
- Operates various components on the medium and high voltage distribution electrical system including isolation switches, interrupters, capacitor banks,

- transformers, overhead fused cutouts, and voltage regulators; isolates and clears sections of the system for maintenance, installation and load shedding;
- Inspects overhead and underground distribution systems, tests, and documents findings;
  - Responds to emergency calls and takes necessary actions;
  - Provides support for in house capital and in-house projects with commissioning, testing and inspecting finished work;
  - Uses personal protective gear such as hot sticks, respiratory protection, and places or erects clearance tags, barricades, warning signs and devices to protect others;
  - Directs the work of unskilled and semi-skilled helpers assisting in projects, assuring that proper safety practices are followed;
  - Provides on the job training to apprentices;
  - Operates a variety of testing, calibration and repair devices, tools and equipment including voltmeters, ammeters, ohmmeters, insulation resistance testers, high potential test sets, circuit breaker testers, etc.;
  - Coordinates work with customers, project managers, other crafts, and inspectors; inspects job sites and reviews detailed plans, drawings and oral directions to plan work;
  - Prepares detailed estimates including labor and materials, and prepares lists of materials;
  - Assists other crafts as needed;
  - Maintains tools and equipment;
  - Maintains current knowledge of equipment and materials through self-study and training;
  - Prepares and maintains a variety of records and paperwork regarding work

## **CLASS CONCEPTS**

### **Lead High Voltage Electrician**

Under supervision, incumbents serve as work leaders for high voltage crews and helpers assigned to a specific job. Incumbents typically transmit and explain work orders; may make minor changes in material needs or modifications to assigned work due to material delays or other problems; communicate work order revisions, material delays or other problems to supervisor and await further instruction; maintain time and material records; and perform the full range of duties as outlined in the series concept. Additionally, incumbents may have limited responsibilities for making or modifying daily work assignments and for evaluating personnel.

### **High Voltage Electrician**

Under supervision, incumbents perform the full range of duties as outlined in the series concept.

### MINIMUM QUALIFICATIONS

Applicants for the positions in the High Voltage Electrician and Lead High Voltage Electrician classifications are expected to possess a certificate of completion of a recognized apprenticeship, accredited trade school, or the equivalent amount of experience and training comparable to journey level crafts status as a High Voltage Electrician.

#### Knowledge of:

- Electrical theory and terminology.
- Methods, materials, tools and equipment used in the maintenance, repair, and testing of high and medium voltage overhead and underground systems, and associated equipment.
- Safety and safe working practices pertaining to high voltage electrical work, including ensuring clearances, and working on energized lines and equipment.
- Laws, codes and regulations pertaining high voltage electrical work, including NEC, IEEE, GO 95, and 128.
- Mathematics used in electrical calculations including algebra.
- Job planning and basic estimating.

#### Skill in:

- Performing repairs, fabrication, operations and maintenance of medium and high voltage electrical systems and associated equipment
- Using testing equipment, and troubleshooting complex electrical problems and develop effective resolutions.
- Operating and maintaining tools and equipment of the trade.
- Establishing and maintaining effective working relationships with those contacted in the course of the work such as customers, project managers, inspectors, and other crafts, including assisting others and working cooperatively.
- Maintaining records related to work performed including use of computers.
- Reading and interpreting plans, diagrams, drawings, instructions, and related technical materials.
- Planning and directing the work of semi-skilled and apprentice

### OTHER REQUIREMENTS

Possess a valid California driver's license and have a satisfactory driving record.

*Handwritten notes at top: 4 TM, JM, 7/20/2022, UCLA, 7/27/22, and signatures.*

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## University of California Los Angeles

### Job Description

The Job Description form is used to record the duties, responsibilities, qualifications sought and fiscal impact of classified and nonclassified positions. This information is the basis for determining the title, salary rate, and Fair Labor Standards Act exemption status for positions. To achieve these purposes, it is essential that detailed and exact information pertaining to current duties, responsibilities, and qualifications be accurately recorded on this form.

#### Employee Details

Employee First Name:

Employee Last Name:

Employee ID:

#### Position Information

JA Number:

Effective Date:

Department Code / Name: 3415-MAINTENANCE AND ALTERATIONS

Organization Code / Name: 5000-ADMINISTRATIVE VICE CHANCELLOR

Fund Source: NA

#### Department HR Contact

Name:

Email Address:

Phone Number or Extension:

#### Position Title

Title Code: 8154

Title: HIGH VOLT ELECTRN

Approved Working Title: Electrician- High Voltage

Approved Program:

Approved Grade Level: N/A

Range Minimum:

Range Maximum:	
Approved Employee Relations (ER) Code:	E-All others, not confidential
Approved Bargaining Unit (BU) Code:	K4-Skilled Crafts-UCLA
Approved Step Level:	
FLSA Status:	Non-Exempt
Appointment Type:	Career
Is this a Master Job Description?	Yes

### Reporting Information

Supervisor Name:	Electrician Supervisor
Supervisor Payroll Title:	ELECTRICIAN, SUPERVISING
Supervisor Working Title:	Electrician Supervisor
Dept Head Name:	Director, Maintenance & Alterations
Dept Head Payroll Title:	DIRECTOR (FUNCTIONAL AREA)
Dept Head Working Title:	Director, Maintenance & Alterations

### Job Summary

Job Summary Statement:	<p>Under the supervision of the Manager of Electrical Systems and the Electrical Supervisor(s), perform all campus-wide and off-campus projects involving all electrical voltages up to 15KV such as service, test, repair, install and maintain various electrical systems and equipment to achieve maximum performance and efficiency of operations on a daily basis. Perform mandatory maintenance and testing of equipment and maintain documentation. Troubleshoot, inspect for malfunctions, repair complicated electrical and electro-mechanical devices, SF6 switches, distribution centers, PLC based load shedding, and other circuits up to 15 KV. Install, inspect, replace or repair major control devices, power circuits, panel boards, circuit breakers, contacts, coils, splices, SF6 switches, load interrupter, relays, linkages, fuses and wiring up to 15 KV. Install conduits, switches, receptacles, contactors and design modifications to existing control circuits where necessary. Submit trouble tickets to supervisor, complete material transfer forms, maintain recordkeeping of hours worked on each job and develop written switching procedures. Clean up job site and return equipment, materials. Operate and maintain a variety of power and hand tools, high voltage testing equipment, confined space access equipment and tools; observe good safety practices on the job site.</p>
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Type of Supervision Received/Exercised:

Under the direction of the Manager of Electrical System and Supervising Electricians, perform all in-shop, campus-wide, and off-campus projects related to the maintenance, installation, or repair of various electrical systems and equipment up to 15 KV.

### Supervisory Information

Does this job have supervisory responsibilities?

No

# of Career FTE's this position supervises:

# of Career FTE's supervised through subordinates:

Extent of Supervisory Responsibilities:

### Fiscal Responsibility

Amount:

Type:

Amount:

Type:

Amount:

Type:

### Core Functions & Duties

% of Time	Core Function	Function Letter	Duty Statements
50	Maintenance, Repair, or Installation of Electrical Systems and Equipment	A	<p>1. Inspect and troubleshoot equipment and electrical systems for malfunction, signs of deterioration, or need for adjustment by replacing burnt-out elements and fuses, bypassing or replacing defective wiring, switches or contact point, and cleaning or rewiring motors; conduct safety tests. E</p> <p>2. Maintain and repair switching gear, circuit breakers, emergency power systems, starters, contactors, variable speed controllers, SF6 switches, automatic transfer switches of voltages up to 15 KV. (E)</p> <p>3. Maintain and repair complicated electrical and electro-mechanical circuits, Microprocessors systems, underground electrical distribution up to 15KV (E)</p> <p>4. Adjust spring tensions, relays, thermal overloads, linkages, voltage and Equipment timers. Replace contacts, coils, relays, linkages, fuses, wiring, and related electrical parts. (E)</p>

			<p>5. Repair or replace major control devices (e.g. time switches, photoelectric switches, electromechanical and solid state controlled devices. (E)</p> <p>6. Respond to trouble calls involving an emergency repair or replacement on systems above 600V. (E)</p> <p>7. Inspects underground distribution systems and electrical man holes, tests, documents and makes necessary repairs. (E)</p>
40	Installations and Modifications	B	<p>1. Work from blueprints, drawings, or oral instructions from Project Managers, Capital Programs, and FSR's in the redesign, modification and installation of expanded electrical systems in order to meet requirements of construction and alterations projects. Report discrepancies in existing blueprints to supervisor in order to keep existing as-builts as current as possible. (E)</p> <p>2. Install conduits, switches, receptacles, contactors, control devices, relays, Modifications power circuits, panel boards, circuit breakers, coils, linkages, fuses and wiring. (E)</p> <p>3. Design modifications to existing control circuits where necessary. (E)</p> <p>4. Install, replace, maintain, or repair electrical medium voltage distribution cabling, splicing and inspection. (E)</p> <p>5. Install conduits, switches, receptacles, contractors, and design modifications to existing control circuits where necessary. (E)</p>
5	Administrative Tasks	C	<p>1. With smaller projects and minor repairs, evaluate problem, extent of repair. Tasks and determine appropriate material and equipment required to complete project. (E)</p> <p>2. Submit completed work orders to supervisor for closing out project. (E)</p> <p>3. Request tools and equipment, materials, parts etc. and submit to supervisor. (E)</p> <p>4. Orally discuss jobs with supervisor to keep apprised of job progress and resolve any problems related to the job. (E)</p> <p>5. Provide direction to semi-skilled or unskilled workers. (E)</p> <p>6. Assist in the training of Apprentice Electrician in the proper method and practices of the trade (E)</p> <p>7. Establish preventive maintenance programs, documents on systems above 600V.</p>
5	General Tasks	D	<p>1. Maintain accurate hours worked on each job. (E)</p> <p>2. Operate and maintain a variety of power and/or hand tools and equipment related to the trade. (E)</p> <p>3. Follow established safety procedures at all times including</p>

			<p>inspecting tools and equipment for signs of damage, malfunction or deterioration on a regular basis. (E)</p> <p>4. Upon completion of work, clean up job site and return equipment, materials, tools, radios, pagers, and Kronos wands to be designated storage areas. (E)</p> <p>5. Respond to off-hour emergencies and overtime as required. (E)</p> <p>6. Perform miscellaneous job-related duties as requested by supervisor. (E)</p>
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#### SKACs

SKAC	Duty Reference	Req/Preferred
1. Working knowledge of current industry accepted methods and procedures for testing, repairing, installing and maintaining a variety of complicated electrical equipment and systems up to 15 KV.	ABCD	Required
2. Working knowledge of electrical safety, Arc flash and high voltage safety above and below ground.	ABCD	Required
3. Working knowledge of materials, equipment and tools of the Electrician's trade; and various power distribution, auxiliary equipment and motor control systems, and the ability to use power, hand tools, and electronic testing equipment in a safe manner.	ABC	Required
4. Skill in working with both digital and analog electrical devices/systems (i.e. microprocessors, programmable controllers, logic control devices). Working knowledge of NEC and CEC.	ABCD	Required
5. Working knowledge of all types of electrical fittings, conduit bending, cable splicing and the ability to run all kinds of conduit. Ability to install a complete electrical system.	ABC	Required
6. Working knowledge of basic electrical theory including AC/DC systems applications, and protective relaying.	ABCD	Required
7. Ability to troubleshoot and repair electrical systems and equipment for malfunctions, sign of damage, deterioration, or adjustment.	ABCD	Required
8. Ability to read project specifications, blue prints, and technical trade related manuals, write switching procedures and write simple English phrases to complete reports that are accurate and easy to comprehend.	ABCD	Required
9. Ability to establish and maintain cooperative working relationships and maintain a positive and respectful attitude.	ABCD	Required
10. Oral communication skills to obtain or convey accurate, grammatically correct information.	ABCD	Required
11. Ability to prioritize assignments and complete projects in a timely manner.	ABCD	Required
12. Ability to work independently and follow through on assignments.	ABCD	Required
13. Ability to use personal computer and standard office software such as Word, Excel etc. and the ability to program panels with manufacturer's supplied software.	ABCD	Preferred
14. Working knowledge of computerized facilities maintenance software.	ABCD	Required

15. Satisfactory completion of a certified 4-year apprenticeship program or equivalent and three years' experience working on systems up to 15KV.	ABCD	Required
16. Ability to stand, stoop, push, pull, crawl, lift a minimum of 50 lbs and must be willing and able to work in confined spaces as vaults and manholes. Ability to distinguish among colors.	ABCD	Required
17. Possession of California General Electrician Certificate.	ABCD	Required
18. Possess a High Voltage splicing Certificate.	ABCD	Preferred
19. Ability to splice High Voltage cables and work in underground manholes within confined spaces.	ABCD	Required
20. Ability to work occasional overtime during the week or weekends as needed this includes being "on-call"/trouble call pager, on weekends as part of rotation.	ABCD	Required
21. Ability to maintain a safe working environment when working with any other trade or non-trade personnel.	ABCD	Required
22. Ability to coordinate work with other construction trades.	ABCD	Required
23. Ability to provide direction to Facilities Workers and/or Facilities Mechanics and to train Apprentices.	ABCD	Required
24. Ability to work indoors and outdoors, in wet or humid weather and fluctuating and/or extreme temperatures and/or adverse situations and conditions. e.g. confined spaces, dirty, noisy, etc..	ABCD	Required
25. Ability to drive a University truck or other light vehicle in the course of duties and possess a valid California driver's license.	ABCD	Required

#### Special Employment Designations/Requirements

Conflict of Interest:

N/A

Critical:

Continued employment contingent upon completion of satisfactory background investigation.

Driving Record:

Position is subject to the California DMV's "Pull Notice System" and continued employment is contingent upon proof of a satisfactory driving record.

Other Special Employment Requirements:

Age Requirement: Applicants must be 18 years or older to be eligible to be hired.  
Drug Test: Employment is contingent upon completion of satisfactory drug test.  
Physical: Employment is contingent upon completion of satisfactory physical examination.  
TB Test: Continued employment is contingent upon completion of satisfactory TB test.  
Color Vision Testing

Date

Signature of Supervisor

Name and Class Title

*Date*

*Signature of Employee*

*Name and Class Title*