

ELECTRICIAN

RAPIDS: 0159D

O*NET/SOC: 47-2111.00

REVISION DATE: 03/2021

TRADE DESCRIPTION: Install, maintain, and repair electrical wiring, equipment, and fixtures. Ensure that work is in accordance with relevant codes. May install or service street lights, intercom systems, or electrical control systems.

TASK PERFORMANCE: Demonstrate knowledge and skills for qualifying as Journeyman. Applicable Job Qualification Requirements will be used as a guide in performing tasks and demonstrating knowledge in the following competencies.

TRADE ELIGIBILITY REQUIREMENTS:

Service Member assigned, trained and working full time in this trade occupation;

Have a minimum of 12 months remaining on active duty when beginning this trade apprenticeship;

Agree to abide by the National Standards of Apprenticeship.

Related Instruction:

Trade related On-The-Job-Training (OJT) or Any Trade related schools/courses totaling 432 or more hours.

Additional Requirement:

None

JOB FUNCTION 1: PRELIMINARY WORK			
Competencies:	Achieved Competency	Date Achieved	Approved By
1 - Inspect electrical systems, equipment, or components to identify hazards, defects, or the need for adjustment or repair, and to ensure compliance with codes.			
2 - Provide preliminary sketches or cost estimates for materials or services.			
3 - Construct or fabricate parts, using hand tools, according to specifications.			
4 - Advise management on whether continued operation of equipment could be hazardous.			
5 - Prepare sketches or follow blueprints to determine the location of wiring or equipment and to ensure conformance to building and safety codes.			
JOB FUNCTION 2: RESIDENTIAL AND COMMERCIAL FINISH WORK			
Competencies:	Achieved Competency	Date Achieved	Approved By
1 - Connect wires to circuit breakers, transformers, or other components.			
2 - Use a variety of tools or equipment, such as power construction equipment, measuring devices, power tools, and testing equipment, such as oscilloscopes, ammeters, or test lamps.			
3 - Place conduit, pipes, or tubing, inside designated partitions, walls, or other concealed areas, and pull insulated wires or cables through the conduit to complete circuits between boxes.			
4 - Repair or replace wiring, equipment, or fixtures, using hand tools or power tools.			
5 - Install ground leads and connect power cables to equipment, such as motors.			
6 - Assemble, install, test, or maintain electrical or electronic wiring, equipment, appliances, apparatus, or fixtures, using hand tools or power tools.			
7 - Fasten small metal or plastic boxes to walls to house electrical switches or outlets.			
JOB FUNCTION 3: TROUBLESHOOTING			
Competencies:	Achieved Competency	Date Achieved	Approved By
1 - Test electrical systems or continuity of circuits in electrical wiring, equipment, or fixtures, using testing devices, such as ohmmeters, voltmeters, or oscilloscopes, to ensure compatibility and safety of system.			

2 - Diagnose malfunctioning systems, apparatus, or components, using test equipment and hand tools to locate the cause of a breakdown and correct the problem.			
3 - Provide assistance during emergencies by operating floodlights or generators, placing flares, or driving needed vehicles.			
JOB FUNCTION 4: WORK SITE MANAGEMENT			
Competencies:	Achieved Competency	Date Achieved	Approved By
1 - Plan layout and installation of electrical wiring, equipment, or fixtures, based on job specifications and local codes.			
2 - Work from ladders, scaffolds, or roofs to install, maintain, or repair electrical wiring, equipment, or fixtures.			
3 - Maintain current electrician's license or identification card to meet governmental regulations.			
4 - Direct or train workers to install, maintain, or repair electrical wiring, equipment, or fixtures.			
5 - Perform business management duties, such as maintaining records or files, preparing reports, or ordering supplies or equipment.			
6 - Perform physically demanding tasks, such as digging trenches to lay conduit or moving or lifting heavy objects.			
FINAL APPROVER:	ALL COMPETENCIES COMPLETED:		
SIGNATURE:	DATE:		