

## ELECTRICIAN, MAINTENANCE

RAPIDS: 0643D

O\*NET/SOC: 47-2111.00

REVISION DATE: 09/2019

**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 skill areas. Actual work time must be recorded in the Work Experience Log; each skill area must be completed.

### Applicable Ratings/MOS/NEC

**USMC MOS:** 1141, 1142, 1169, 6073, 6499

**USCG:** EM

**USN:** CE, EM, EMN, GSE, IC

**USA MOS:** 12P, 12Q, 12R, 25L, 25Q, 919A, 91D, 91J

### Related Instruction:

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

### Additional Requirement:

None

Total Hours: **6000**

Skill	Description	Hours
A	TEST EQUIPMENT AND HAND TOOLS	1500

	<ul style="list-style-type: none"> <li>-- Ammeter, voltmeter, ohmmeter, megger, tachometer (mechanical), oscilloscope, stroboscope, frequency meter, phase-sequence indicator, voltage tester, wattmeter, clamp-on ammeter, install meters in circuit, interpret instrument readings.</li> <li>-- Diagnose malfunctioning systems, apparatus, or components, using test equipment and hand tools to locate the cause of a breakdown and correct the problem.</li> <li>-- 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.</li> <li>-- Construct or fabricate parts, using hand tools, according to specifications.</li> </ul>	
<b>B</b>	<p><b>INSTALL, REPAIR AND MAINTAIN</b></p> <ul style="list-style-type: none"> <li>-- Place conduit, pipes, or tubing, inside designated walls, or other concealed areas, and pull insulated wires or cables through the conduit to complete circuits between boxes.</li> <li>-- Connect wires to circuit breakers, transformers, or other components.</li> <li>-- Install ground leads and connect power cables to equipment, such as motors.</li> <li>-- Assemble, install, test, or maintain electrical or electronic wiring, equipment, appliances, apparatus, or fixtures, using hand tools or power tools.</li> <li>-- Inspect electrical systems, equipment, or components to identify hazards, defects, or the need for adjustment or repair, and to ensure compliance with codes.</li> <li>-- Work from ladders, scaffolds, or roofs to install, maintain, or repair electrical wiring, equipment, or fixtures.</li> </ul>	<b>3500</b>
<b>C</b>	<p><b>PANELS AND CONTROLS</b></p> <ul style="list-style-type: none"> <li>--Connect wires to circuit breakers, transformers, or other components.</li> <li>-- Fasten small metal or plastic boxes to walls to house electrical switches or outlets.</li> </ul>	<b>500</b>
<b>D</b>	<p><b>BLUEPRINTS, DRAWINGS, AND SCHEMATICS</b></p> <ul style="list-style-type: none"> <li>-- Plan layout and installation of electrical wiring, equipment, or fixtures, based on job specifications and local codes.</li> <li>-- Prepare sketches or follow blueprints to determine the location of wiring or equipment and to ensure conformance to building and safety codes.</li> <li>-- Provide preliminary sketches or cost estimates for materials or services.</li> </ul>	<b>500</b>