

## OJT CORE COMPETENCIES

# Electrical and Electronic Engineering Technician

### TERM OF APPRENTICESHIP

The term of the apprenticeship is 3 years.

### APPRENTICESHIP APPROACH

Time-based

Competency-based

Hybrid

*Apprenticeships may be time-based, requiring a set number of OJT (on-the-job training) and RTI (related technical instruction) hours; competency-based, allowing completion once all skills are mastered; or hybrid, blending both time and competency requirements.*

### SCHEDULE AND CHECKLIST

Essential Job Categories	Competencies
Understands Safety Procedures	<ul style="list-style-type: none"><li>• Adheres to personal grooming requirements in the facility</li><li>• Uses personal protective equipment</li><li>• Follows fire safety procedures</li><li>• Works around energy sources and performs lockout/tag-out procedures</li><li>• Handles and stores hazardous materials as assigned</li><li>• Demonstrates both emergency and standard shutdown of all required equipment</li><li>• Uses and locates eye wash sinks and first-aid kits</li><li>• Demonstrates, reports, and responds promptly, safely, and appropriately to emergency or hazard situations and troubleshoots any issues that may arise</li><li>• Employer-specific task</li></ul>
Understands Electrical Components	<ul style="list-style-type: none"><li>• Understands wiring, casings, rivets, bolts, support structures, etc.</li><li>• Understands other components such as energy storage (battery), chargers, power control units, reducers, inverters, converters,</li><li>• Employer-specific tasks</li></ul>
Understands Electrical Blueprints or Schematics	<ul style="list-style-type: none"><li>• Understands how to read and interpret schematic drawings, diagrams, blueprints, specifications, work orders or reports to determine material requirements or assembly instructions</li><li>• Align parts or work pieces to ensure proper assembly.</li><li>• Position, align, or adjust workpieces or electrical parts to facilitate wiring or assembly.</li><li>• Employer-specific task</li></ul>

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### SCHEDULE AND CHECKLIST

Essential Job Categories	Competencies
Interprets Technical Information	<ul style="list-style-type: none"><li>• Set-up and operate specialized or standard test equipment to diagnose, test, or analyze the performance of electronic components, assemblies, or systems.</li><li>• Measure and adjust voltages to specified values to determine operational accuracy of instruments.</li><li>• Identify and resolve equipment malfunctions</li><li>• Review existing electrical engineering criteria to identify necessary revisions, deletions or amendments to outdated material.</li><li>• Understands company policies and procedures</li><li>• Employer-specific task</li></ul>
Understands Quality Assurance	<ul style="list-style-type: none"><li>• Able to use mechanical tools to accurately measure necessary specifications</li><li>• Ensure all production documentation is completed including logs, manuals, tests, and operations.</li><li>• Inspect components and assembly for non-conformances</li><li>• Able to use testing equipment to verify specifications</li><li>• Employer-specific task</li></ul>
Demonstrates Knowledge of Routine Equipment Maintenance	<ul style="list-style-type: none"><li>• Demonstrates understanding of preventative maintenance requirements</li><li>• Review, develop or prepare maintenance standards</li><li>• Employer-specific task</li></ul>
Adapts Concepts to Green Technologies	<ul style="list-style-type: none"><li>• Test electrical aspects of new green technologies and assess adaptability.</li><li>• Understands energy management systems and battery management systems</li><li>• Understand battery construction and technologies</li><li>• Understands power inverters, converters and adapters</li><li>• Assemble electrical systems and prototypes</li><li>• Employer-specific task</li></ul>