

DUTY AREAS AND TASKS	NOCTI COMPETENCY	NATIONAL SKILL STANDARD- NFPA NEC, OSHA
A. JOB RELATED TASKS		
1. Select an Occupational Goal	N/A	N/A
2. Establish a Training Plan to Reach Personal Occupational Objectives	N/A	N/A
3. Participate in Job Related Professional Organizations	N/A	N/A
4. Keep Updated Professionally	N/A	N/A
5. Display Dependable Attendance Habits	N/A	N/A
6. Dress Appropriately	N/A	N/A
7. Communicate Professionally	N/A	N/A
8. Display Responsible Time-On-Task Habits	N/A	N/A
9. Develop a Resume	N/A	N/A
10. Complete a Job Application	N/A	N/A
11. Participate in a Job Interview	N/A	N/A
B. SAFETY		
1. Use Material Safety Data Sheets	N/A	OSHA Part 1910
2. Work According to OSHA Regulations	S6	OSHA Part 1926
3. Demonstrate Safe Habits When Working Near Hazardous Chemicals	S6	OSHA Part 1910
4. Conduct Safety Inspections of a Work Area	S6	OSHA Part 1926
5. Conduct Emergency Evacuation Drills	N/A	OSHA Part 1926

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6. Prepare an Accident Report	N/A	OSHA Part 1904
7. Respond Safely to Electrical Accidents	N/A	OSHA Part 1926
8. Work Safely with Hand Tools	T1	OSHA Part 1926
9. Work Safely with Electric Power Tools	T1	OSHA Part 1926
10. Use Safety Locks and Hasps	S4	NEC110
11. Work Safely with Possible PCB Contaminated Equipment	N/A	NEC110
12. Work Safely According to OSHA, Standard Work Practices	N/A	OSHA Part 1926
13. Keep up-to-date with New OSHA Provisions	N/A	OSHA Part 1926
C. HAND AND ELECTRIC TOOLS		
1. Identify and Use Basic Electrical Hand Tools	T1	OSHA Part 1926
2. Identify and Use Basic Electrical Power Tools	T1	OSHA Part 1926
3. Use a Hydraulic Knock-Out Punch	T1	OSHA Part 1926
4. Use an Electrical Snake	T1	OSHA Part 1926
5. Solder Wires Together	T1	OSHA Part 1926

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6. Use a Torque Wrench	T1	OSHA Part 1926
7. Drill and Tap Holes	T1	OSHA Part 1926
D. BASIC ELECTRICAL THEORY SKILLS		
1. Use Electrical Symbols	N/A	N/A
2. Draw and Illustrate a Household Electrical System	BRE5	N/A
3. Use OHM's Law to Solve Electrical Problems	DC5	N/A
4. Construct Basic Series Circuits	DC1	N/A
5. Construct Basic Parallel Circuits	DC1	N/A
6. Construct Series - Parallel Circuits	DC1	N/A
7. Read Electrical Blueprints	BRE1	N/A
8. Sketch a Single Pole Switch Circuitry with Light	BRE5	N/A
9. Sketch a 3-Way Switch Circuit with Light	BRE5	N/A
10. Sketch a 4-Way Switch Circuit with Light	BRE5	N/A
11. Sketch a Ladder Diagram for a Start-Stop Pushbutton Station Operating a Relay	BRE5	N/A
12. Sketch a Ladder Diagram for Two Start-Stop Pushbutton Stations Operating a Motor	BRE5	N/A
E. ALTERNATING CURRENT		
1. Demonstrate the Use of AC Current	AC5	N/A
2. Hook Up a Transformer Using AC Current	AC1	NEC450
3. Demonstrate the Use of AC Instruments and Meters	AC3	NEC230
F. NATIONAL ELECTRICAL CODE		
1. Locate Information in the National Electrical Code	NEC1	N/A

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2. Keep Up-To-Date with the National Electrical Code	NEC1	N/A
G. RESIDENTIAL WIRING		
1. Use Grounding Methods	WM8	NEC250
2. Install and Wire Outlet Boxes and Fittings	WM3	NEC210
3. Install a Doorbell Circuit	WM3	NEC720
4. Install a 100 AMP Service Using 100 AMP Service Entrance Cable	WM5	NEC230
5. Install a 100 AMP Service Using Standard Mast Kits	WM5	NEC230
6. Install a GFCI Breaker	WM3	NEC210
7. Install a GFCI Receptacle	WM3	NEC210
8. Develop a House Wiring Plan which Meets N.E.C. Regulations	NEC1	N/A
9. Install Arc-fault Circuit	WM3	NEC210
H. WIRING DEVICES		
1. Install Circuit Breakers	WM3	NEC240
2. Install Fuses	WM3	NEC240
3. Calculate Loads for Residential Circuits	BRE7	N/A
I. LIGHTING FIXTURES		
1. Install a Light Fixture	WM3	NEC410
2. Install a Fan with Light Kit	WM3	NEC410
3. Install a Fluorescent Light	WM3	NEC410
4. Replace a Fluorescent Light Ballast	WM3	NEC410
5. Construct and Operate a High Intensity Discharge Fixture	WM3	NEC410
J. CONDUIT, WIRE AND SPECIALIZED CABLES		
1. Select Wire for Conduit Use	WM2	NEC TABLES
2. Select Cable for Wiring Jobs	WM2	N/A

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3. Thread Conduit	WM2	NEC300
4. Bend Thin Wall Conduit	WM2	NEC358
5. Bend Rigid Conduit	WM2	NEC352
K. PVC CONDUIT AND RELATED DEVICES		
1. Cut and Glue PVC Conduit	WM2	NEC300
2. Wire Studded Area with PVC Material	WM3	NEC300
3. Install a 100 AMP Service with PVC Material	WM2	NEC300
L. DIRECT CURRENT APPLICATIONS		
1. Demonstrate Use of Magnetism in Electricity	DC1	N/A
2. Develop a Light Source Using Two D Cell Batteries	DC1	N/A
M. ALTERNATING AND DIRECT CURRENT MOTORS		
1. Wire a Single-Phase AC Motor	MC3	NEC430
2. Wire a Three-Phase AC Motor	MC3	NEC430
3. Dismantle a Single-Phase AC Motor	N/A	NEC430
4. Dismantle a Three-Phase AC Motor	N/A	NEC430
5. Wire a Three-Phase DC Motor	MC1	NEC430
6. Demonstrate Conversion of Electrical Power to Mechanical Power	N/A	N/A
N. GENERATORS AND TRANSFORMERS		
1. Hook up an AC Transformer with 120 Primary Volts and 24 Secondary Volts	AC1	NEC450
2. Hook up an AC Transformer with 208 Primary Volts and 24 Secondary Volts	AC1	NEC450
O. COMMERCIAL AND INDUSTRIAL MOTOR		
1. Wire a Start-Stop Pushbutton Controlling an AC Relay	MC3	N/A
2. Wire a One-Horsepower Three-Phase AC Motor	MC3	NEC430
3. Wire an Allen Bradley Time Delay Relay Controlling a Light Source	MC3	N/A

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4. Wire a 220 Volt Single-Phase Timer Controlling a Light Source	MC3	N/A
5. Wire E-Stops	MC3	NEC430
P. BASIC FUNDAMENTALS FOR SOLID STATE CONTROLS AND PROGRAMMABLE CONTROLLERS		
1. Wire a Solid State Relay	MC4	N/A
2. Dismantle a Solid State Relay	MC6	N/A
3. Program a Programmable Controller	MC4	N/A
4. Wire Inputs and Outputs on a Programmable Controller	MC4	N/A