

Competency Task List – Secondary Component
Electrical and Power Transmission Installers, Other CIP 46.0399
High School Graduation Years 2022, 2023, 2024

100 Basic Safety

Item	Task	(X) Indicates Proficiency ¹	Secondary Course Crosswalk
101	Inspect and use personal protective equipment.		
102	Identify causes of job site accidents.		
103	RESERVED		
104	RESERVED		
105	Properly don fall protection.		
106	Identify four classes of fire extinguishers.		
107	Confirm circuits are de-energized before working on them.		
108	Perform lockout/tagout.		
109	Inspect and use ladders.		
110	Complete jobsite hazard analysis form.		
111	Identify arc-flash hazards and protection (NFPA70E).		

200 Hand Tools

Item	Task	(X) Indicates Proficiency ¹	Secondary Course Crosswalk
201	Use screwdrivers.		
202	Use pliers.		
203	Use a keyhole/drywall saw.		
204	Use a hydraulic knockout/punch tool.		
205	Use a tape measure.		
206	Use wire strippers.		

207	Use wire cutters.		
208	Use a utility knife.		
209	Use a torpedo level.		
210	Use a hammer.		
211	Use a conduit reamer.		
212	Use a hacksaw.		
213	Use an MC Cable splitter (roto-split).		
214	Use an adjustable or non-adjustable wrenches.		
215	Use a ratchet and sockets.		
216	Use nut drivers.		

300 Power Tools

Item	Task	(X) Indicates Proficiency ¹	Secondary Course Crosswalk
301	RESERVED		
302	Use a hammer drill.		
303	Use a reciprocating saw.		
304	Use a portable hand-held band saw.		
305	RESERVED		
306	Use a drill.		
307	RESERVED		
308	RESERVED		
309	RESERVED		
310	Use an oscillating multipurpose tool.		
311	Use impact driver.		

400 Blueprint Reading

Item	Task	(X) Indicates Proficiency ¹	Secondary Course Crosswalk
401	Identify types of blueprint plans.		
402	Identify blueprint symbols.		
403	Interpret blueprint plans.		
404	RESERVED		
405	Develop electrical details on a blueprint.		
406	Use a measuring tool to scale.		

500 Anchors and Supports

Item	Task	(X) Indicates Proficiency ¹	Secondary Course Crosswalk
501	Identify, select, and install various types of anchors and supports.		

600 Residential Cabling Technology

Item	Task	(X) Indicates Proficiency ¹	Secondary Course Crosswalk
601	Install non-metallic (NM) Cable.		
602	Install metal-clad cable (MC).		
603	RESERVED		
604	RESERVED		
605	Terminate a coaxial cable.		
606	RESERVED		
607	RESERVED		
608	RESERVED		
609	Identify telecommunications cable types.		
610	Terminate a RJ45 connector.		

611	Install SE cable.		
612	Terminate and splice conductors.		

700 Switches and Receptacles Circuits

Item	Task	(X) Indicates Proficiency ¹	Secondary Course Crosswalk
701	Install a duplex receptacle.		
702	Install a single pole switch.		
703	Install a 3-way switch.		
704	Install a 4-way switch.		
705	Install a split-wired duplex receptacle.		
706	Install a Ground Fault Circuit Interrupter (GFCI) receptacle.		
707	Install an Arc-Fault Circuit Interrupter (AFCI).		
708	Install a time control switch.		
709	Install a range receptacle.		
710	Install a dryer receptacle.		
711	Install various branch circuits.		
712	Install connected/ smart devices.		

800 Fixtures

Item	Task	(X) Indicates Proficiency ¹	Secondary Course Crosswalk
801	Install surface-mounted lighting fixture.		
802	Install recessed lighting fixtures.		
803	Install a ceiling fan.		
804	Install special purpose lighting.		
805	Identify IC and non-IC recessed lighting fixtures.		

900 Raceways

Item	Task	(X) Indicates Proficiency ¹	Secondary Course Crosswalk
901	Install Electrical Metallic Tubing (EMT).		
902	RESERVED		
903	Design a surface raceways system (wiremold).		
904	Install flexible raceway.		
905	RESERVED		
906	RESERVED		
907	RESERVED		
908	Bend a stub 90°.		
909	Bend an offset.		
910	Bend a back to back 90°.		
911	Cut, ream, and deburr raceway systems.		
912	Install conductors in a raceway system.		

1000 Wired Devices

Item	Task	(X) Indicates Proficiency ¹	Secondary Course Crosswalk
1001	Install a hard-wired smoke detector.		
1002	Install door-bell system.		
1003	Trim out electrical devices.		
1004	Install an occupancy sensor.		
1005	Install a photocell.		

1100 Testing Equipment

Item	Task	(X) Indicates Proficiency ¹	Secondary Course Crosswalk
1101	Use a multimeter to test a circuit.		
1102	RESERVED		
1103	Use a plug-in circuit tester.		
1104	Use a clamp-on ammeter.		
1105	RESERVED		
1106	Use a circuit tracer.		
1107	Use a network cable tester.		
1108	Apply Ohm's/Watt's law calculations to electrical applications.		

1200 Electrical Service

Item	Task	(X) Indicates Proficiency ¹	Secondary Course Crosswalk
1201	Install an overhead service.		
1202	Identify parts of an underground service.		
1203	RESERVED		
1204	RESERVED		
1205	RESERVED		
1206	RESERVED		
1207	RESERVED		
1208	RESERVED		
1209	Identify types of safety disconnect switches.		
1210	Terminate a service panel/load center/sub-panel.		

1300 National Electrical Code (NEC)

Item	Task	(X) Indicates Proficiency ¹	Secondary Course Crosswalk
1301	Identify the purpose of the NEC.		
1302	Use Chapter 9 Tables.		
1303	Use the NEC as a reference to questions and competencies that students perform for all electrical installations.		
1304	Identify the publisher of the NEC.		
1305	Identify the code cycle of the NEC.		
1306	RESERVED		

1400 Green Technology

Item	Task	(X) Indicates Proficiency ¹	Secondary Course Crosswalk
1401	Identify renewable energy sources.		
1402	Identify procedures for installing a wind turbine system.		
1403	RESERVED		
1404	Identify procedures for installing a solar energy system.		
1405	RESERVED		
1406	RESERVED		
1407	Evaluate the demand and consumption of electrical energy.		

¹ Student Demonstrated Entry-Level Industry Proficiency as Indicated by (X)

Secondary CTE Instructor Signature _____ Date _____

Student Signature _____ Date _____