

Crawford County
Career  **Technical**
 Center

Unit/Standard Number	Electrical and Power Transmission Installers, Other CIP 46.0399 Task Grid	Proficiency Level Achieved: (X) Indicates Competency Achieved to Industry Proficiency Level
	Secondary Competency Task List	
100	BASIC SAFETY	
101	Demonstrate proper use of personal protective equipment.	
102	Identify causes of job site accidents.	
103	Identify job site hazards.	
104	Working safely with job hazards.	
105	Identify safe methods and equipment of aerial work.	
106	Demonstrate basic fire safety.	
107	Demonstrate basic electrical safety.	
108	Perform lockout/tagout.	
109	Demonstrate scaffold and ladder safety.	
200	HAND TOOLS	
201	Recognize, identify and safely use hammers and screwdrivers.	
202	Recognize, identify and safely use pliers and wire cutters.	
203	Recognize, identify and safely use saws and chisels.	
204	Identify and safely use hydraulic, hand tools.	
300	POWER TOOLS	

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301	Recognize, identify and safely use drill and saws.	
302	Identify and safely use electric hammer drill.	
303	Identify and safely use reciprocating saw.	
304	Identify and safely use portable hand-held band saw.	
305	Identify and safely use circular saw.	
306	Identify and safely use electric/cordless drill.	
307	Identify the safe use of a portable jig saw.	
308	RESERVED	
309	Identify the safe use of a portable power conduit threading machine.	
400	BLUEPRINT READING	
401	Identify types of blueprint plans.	
402	Identify blueprint symbols.	
403	Interpret blueprint plans.	
404	Plan branch circuits for blueprint development.	
405	Incorporate electrical details to residential blueprint.	
500	ANCHORS AND SUPPORTS	
501	Identify, select and install various types of anchors and supports.	
600	RESIDENTIAL CABLING TECHNOLOGY	
601	Install non-metallic (NM) Cable for connection to an electrical device.	
602	Install metal-clad cable (MC).	
603	Demonstrate knowledge and skill in installing low-voltage wires and cable for timers, computers, telephones and security systems.	
604	RESERVED	
605	Demonstrate knowledge and skill in installing coaxial cable for television and telecommunications systems.	
606	Demonstrate knowledge and skill in "finish wiring" electrical outlets, switches, fixtures and other devices in a residence.	
607	RESERVED	
608	RESERVED	
609	Design and plan layout of low voltage circuits services.	



700	SWITCHES AND RECEPTACLES CIRCUITS	
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 timer circuit.	
709	Install various special switches and receptacles.	
800	FIXTURES	
801	Install surface-mounted lighting fixture.	
802	Install recessed lighting fixtures.	
803	Install a ceiling fan.	
804	Install low voltage lighting.	
900	RACEWAYS	
901	Install Electrical Metallic Tubing (EMT).	
902	Install Poly-Vinyl Chloride conduit (PVC).	
903	Identify surface metal and non-metal raceways (Wiremold).	
904	Identify flexible raceway.	
905	Demonstrate the five bends (90, offset, 3 point saddle, 4 point saddle, kick) used for conduit raceways.	
906	RESERVED	
907	Demonstrate the application of construction math problems.	
1000	WIRED DEVICES	
1001	Install a hard wired smoke detector.	
1002	Install door-bell system.	
1100	TESTING EQUIPMENT	
1101	Identify and safely use a multimeter.	

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1102	Identify and safely use a continuity tester.	
1103	Identify and safely use a plug-in circuit tester.	
1104	Identify and safely use a clamp-on ammeter.	
1105	Identify a megger insulation tester.	
1106	Identify and safely use a circuit tracer.	
1200	ELECTRICAL SERVICE	
1201	Install a 100 amp overhead service.	
1202	Identify an underground service.	
1203	Identify a 200 amp overhead service.	
1204	RESERVED	
1205	RESERVED	
1206	RESERVED	
1207	RESERVED	
1208	RESERVED	
1209	Demonstrate knowledge of 3 phase safety disconnect switch.	
1210	Dress and tie in a service panel.	
1300	NATIONAL ELECTRICAL CODE	
1301	Identify the purpose of the National Electrical Code, its publisher and its source, and explain why the NEC is needed in this occupation.	
1302	Demonstrate how to use the National Electrical Code Book as a reference for finding answers to questions, solutions to problems, and up-to-date regulations during the installation of electrical service and power transmission.	
1303	Use the NEC as a reference to questions and competencies that students perform for all electrical installations.	
1400	GREEN TECHNOLOGY	
1401	Describe and explain the uses of wind power and solar power.	
1402	Demonstrate knowledge of installation procedures for a wind turbine system.	
1403	Demonstrate knowledge of installation procedures for photovoltaic systems.	
1404	Demonstrate knowledge of installation procedures for a solar energy source.	
1405	Demonstrate knowledge of installation procedures for a installing a wind energy source.	
1406	Demonstrate knowledge of the operation of solar cells.	