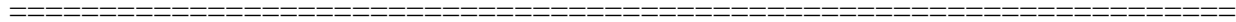


KALAMAZOO VALLEY COMMUNITY COLLEGE

RELATED TRADE INSTRUCTION

ELECTRICIAN



<u>COURSES</u>	<u>DESCRIPTION</u>	<u>CONTACT HOURS</u>	<u>CREDIT HOURS</u>
ELT 110	RES WIRING & CODE	80	3
MATH 106	TECH MATH 1	64	4
ELT 102	APPLIED ELECTRICITY	96	4
ELT 103	INDUSTRIAL ELECTRONICS	96	4
ELT 115	COM WIRING & CODE	48	3
ELT 215	INSTALLING COMM. WIRING	80	3
ELT 120	ELECTRICAL MACHINES	48	3
ELT 220	MOTOR CONTROL	80	3
MSM 120	BASICS FLUID POWER	48	2
DRFT 113	ARCH. BLUEPRINT READING	48	3
ELT 222	PROGRAMMABLE CONTROL	80	3
ELT 224	MACH. PANEL DESIGN & FABR.	80	3
TOTAL HOURS		848	38

COMMENTS:

Kalamazoo Valley Community College
Apprenticeship Department

SUGGESTED SCHEDULE OF WORK EXPERIENCE
For

ELECTRICIAN APPRENTICES

	<u>APPROXIMATE HOURS</u>
1. SPLICES IN WIRES AND CABLES	_____
2. MOTOR REPAIR	_____
3. SIGNAL CIRCUITS AND SOUND EQUIPMENT	_____
4. D.C. MOTORS AND CONTROLLERS	_____
5. COMMERCIAL WIRING/INDUSTRIAL WIRING	_____
6. A.C. MOTORS AND CONTROLLERS	_____
7. SWITCHBOARDS AND CONNECTIONS	_____
8. TRANSFORMERS AND CONNECTIONS	_____
9. INSTALLING RACEWAYS	_____
10. METERING EQUIPMENT	_____
11. PROGRAMMABLE CONTROLLERS	_____
12. CONTACTORS AND RELAYS	_____
13. EXTERIOR WIRING	_____
14. INSTALL FIXTURES AND FIXTURE REPAIR	_____
15. STOCKROOM JOB LAYOUT AND TOOLS	_____
16. BLUEPRINT READING	_____
17. SAFETY INSTRUCTION	_____
18. REPLACE FUSES, BULBS AND TUBES	_____

(OVER)

19. WELDING, BRAZING AND SOLDERING	_____
20. ELECTRICAL PREVENTIVE MAINTENANCE	_____
21. CABLE TRAY	_____
22. RESIDENTIAL WIRING	_____
Total	_____

DESCRIPTION ELECTRICIAN

Plans layout, installs, and repairs wiring, electrical fixtures, apparatus, and control equipment: Plans new or modified installations to minimize waste of materials, provide access for future maintenance, and avoid unsightly, hazardous, and unreliable wiring, consistent with specifications and local electrical codes. Prepares sketches showing location of wiring and equipment, or follows diagrams or blueprints, ensuring that concealed wiring is installed before completion of future walls, ceilings, and flooring. Measures, cuts, bends, threads, assembles, and installs electrical conduit, using tools, such as hacksaw, pipe threader, and conduit bender. Pulls wiring through conduit, assisted by ELECTRICIAN HELPER (and industry) 829.684-022. Splices wires by stripping insulation from terminal leads, using knife or pliers, twisting or soldering wires together, and applying tape or terminal caps. Connects wiring to lighting fixtures and power equipment, using hand tools. Installs control and distribution apparatus, such as switches, relays, and circuit-breaker panels, fastening in place with screws or bolts, using hand tools and power tools. Connects power cables to equipment, such as electric range or motor, and installs grounding leads. Tests continuity of circuit to ensure electrical compatibility and safety of components, using testing instruments, such as ohmmeter, battery and buzzer, and oscilloscope. Observes functioning of installed equipment or system to detect hazards and need for adjustments, relocation, or replacement. May repair faulty equipment or systems (ELECTRICIAN, MAINTENANCE (any industry) 829.261-018). May be required to hold license. May cut and weld steel structural members, using flame-cutting and welding equipment. May be designated according to work location as Mine Electrician (mine & quarry).