

Course Number and Title:	IND220 Electrical Prints & Troubleshooting		
Module # and Topic Title:	Module #2: Troubleshooting Electrical Circuits II		
Semester:	Any – Last updated – 9/2/20		
ACTIVITY	DESCRIPTION	TIME ON TASK	POINTS
Reading Activity	<p>Troubleshooting Electrical/Electronic Equipment, by Mazur and Proctor, Third Edition: <i>Chapter 3</i> – Symbols and Circuits; *Electrical Symbols and Abbreviations: Series, Parallel, Series/Parallel Connections *Circuit Polarity, Batteries and Solarcells</p> <p><i>Chapter 7</i> – Branch Circuit Voltage Drop Measurements, Recording Minimum and Maximum Readings; *Meter Loading Effect, Voltmeter Circuit Connections, Harmonic Distortions; * Troubleshooting Fuses, Troubleshooting Circuit Breakers</p> <p><i>Appendix</i> – Electrical Symbols: Pgs 590-591;</p>	Est. TOT 5.0 Hr.	
Learning Activity	<p>Learning Activities: * Video: How 3-way switches work in your home * PDF: IND220 Module 2 Basic Electrical Symbols 081820.pdf * PDF: Link to the EATON Comparison of NEMA and IEC Schematic Diagrams * PDF: Link to Explanation of Switches * PDF: Link to an illustration of various types of switches * PDF: Link to Switches Demystified * Video: Explanation of Lab 2.1 Circuits 1 and 2 082620 * Video: Explanation of Lab 2.1 Circuit 3 082620 * Video: Explanation of Lab 2.3 Circuit 1 082420 * Video: Explanation of Lab 2.3 Circuit 2 082420 * Video: Troubleshooting Faults in Automation Studio 082620</p>	Est. TOT 4.0 Hr.	
KAA	<p>IND220 Module 2 KAA Study Guide.pdf IND220 Module 2 KAA Practice Quiz IND220 Module 2 Knowledge & Application Assessment (KAA)</p>	Est. TOT 3.0 Hr.	Min. of 80%
Lab Exercise	<p>IND220 Lab 2.1 AS 3-way and 4-way Switch Circuits.pdf (Automation Studio files included in Sakai)</p>	Est. TOT 1.5 Hr.	
Lab Exercise	<p>IND220 Lab 2.2 HL 3 and 4-way Switch and Motor Circuits.pdf</p>	Est. TOT 1.5 Hr.	
Lab Exercise	<p>IND220 Lab 2.3 AS Troubleshooting Basic Electrical Circuits.pdf (Automation Studio files included in Sakai)</p>	Est. TOT 1.5 Hr.	
Lab Exercise	<p>IND220 Lab 2.4 HL Troubleshooting Basic Electrical Circuits.pdf</p>	Est. TOT 1.5 Hr.	
Lab Exercise	<p>IND220 Lab 2.5 AS Troubleshooting Faults in an Electrical Circuit.pdf (Automation Studio files included in Sakai)</p>	Est. TOT 1.5 Hr.	

Module Learning Sequence

Hands-On Assessment	Hands-On Assessment for Module 2	Est. TOT 1.0 Hr.	Min. of 100%
TOTAL		Approx. 19 Hrs	18-20 hrs. per week