Industrial Electronics with
PLC Technology (5)
Clock/Credit Hours

Seq.		Lesson #	Lesson Title	Clock Hr	Credit Hr
1	Module K110	2330A	Current and Voltage	6	0.1101
2		2330B	Controlling Current and Voltage	6	0.1101
3		2333A	Power Distribution	6	0.1101
4		2333B	Portable Extension Cords	6	0.1101
5		2336A	Static Electricity	6	0.1101
6		2336B	Electric Currents and Semiconductor Devices	6	0.1101
7		2101A	Fractions and Decimal Numbers	6	0.3303
8		2101B	Reciprocals	6	0.3303
9		2339A	The Three Basics of Electric Circuits	6	0.1101
10		2339B	Ohm's Law, Conductors, and Insulators	6	0.1101
11		2342A	Connecting and Tracing Battery Circuits	6	0.1101
12		2342B	Identifying Components	6	0.1101
13		2342C	Tracing Wiring on Printed Circuit Boards	6	0.1101
14		2102A	Roots of Numbers & Ratio and Proportion	6	0.3303
15		2102B	Inverse Proportion and Negative Numbers	6	0.3303
16		2323A	Parallel Circuits	6	0.3303
17		2323B	Equivalent Circuits	6	0.3303
18		2323C	Applications of Kirchhoff's Law	6	0.3303
19		2324A	Series-Parallel Circuits	6	0.3303
20		2324B	Voltage and Power	6	0.3303
21	Module K120	2511A	Vital Statistics of AC Circuits	9	0.3303
22		2511B	Magnetism and Magnetic Circuits	9	0.3303
23		2511C	Induced Voltage and Current	9	0.3303
24		2313A	Thinking Circuits and Automatic Switches	9	0.3303
25		2313B	Relays and Robots	9	0.3303
26		2103A	Scientific Notation	9	0.3303
27		2103B	Units of Measure	9	0.3303
28		2304A	Inductance	9	0.3303
29		2304B	Mutual Inductance and Magnetic Coupling	9	0.3303
30		2304C	Transformers	9	0.3303
31		2512A	Electrical Charges and Capacitance	10	0.3303
32		2512B	Capacitors in Action	10	0.3303
33		2403A	Rectifiers and Amplifiers	10	0.3303
34		2403B	Transistor and FET Amplifiers	10	0.3303
35		2104A	Reading and Using Graphs	10	0.3303
36		2104B	Phasors and Formulas	10	0.3303

Seq.		Lesson #	Lesson Title	Clock Hr	Credit Hr
37		2314	Simplifying Circuit analysis by using Kirchhoff's Laws	15	0.5294
38		2315	Currents and Voltages in AC Circuits	15	0.5294
39		2316	Resonant Circuits	16	0.5294
40		2401	Using Semiconductor Diodes	16	0.5294
41		2402	Operation of Semiconductor Devices	16	0.5294
42		2503	Unregulated Power Supplies	16	0.5294
43		2404	Operation of Tubes and Transistors	16	0.5294
44	Module Mod-A	2405	Amplifiers	16	0.5294
45		2412	How to Work with Transistors	16	0.5294
46		2601	Audio Amplifiers and Equipment	16	0.5294
47		2406	Radio Frequency Amplifiers	16	0.5294
48		2407	Oscillators	16	0.5294
49		2431	Operational Amplifiers	16	0.5294
50		2201	Measuring Instruments	16	0.5294
51		2202	Understanding and Using the Oscilloscope	16	0.5294
52		3610	Regulated Power Supplies	16	0.5294
53		2607	Systematic Troubleshooting	16	0.5294
54		3471	Industrial Control Overview	15	0.3462
55		3472	Methods and Operation of the Controller	15	0.3462
55		3473	DC Motors and Drives	15	0.3462
56		3474	AC Motors and Drives	15	0.3462
58		3475	Servo Motors and Servomechanisms	15	0.3462
59	Module L435A	3476	Pressure Systems and Temperature Control	15	0.3462
60		3477	Flow Control and Level Control Systems	15	0.3462
61		3478	Analytical and Industrial Instrumentation	15	0.3462
62		3479	Detection Sensors	15	0.3462
63		3480	Programmable Controllers	15	0.3462
64		3481	PLC Programming, Interfacing, and Troubleshooting	15	0.3462
65		3482	Motion Control	15	0.3462
66		3483	Functional Systems	15	0.3462
67		3463A	Latches	15	0.3750
68		3104A	Logical Gates Part 1: OR & AND	15	0.3750
69		3464A	Logical Gates Part 2: NOR & NAND	15	0.3750
70		3465A	Logical Gates Part 3: XOR, XNOR, & NOT	15	0.3750
71		3342A	Timer Circuits Part 1	15	0.3750
72		3343A	Timer Circuits Part 2	15	0.3750
73	Module L436	3466A	Sequencers Part 1	15	0.3750
74		3467A	Sequencers Part 2	15	0.3750
75		3468A	Counters Part 1	15	0.3750
76		3220A	Counters Part 2	20	0.3750
77		3222A	Control Circuits	20	0.3750
78		3224A	ADC/DAC Converts	20	0.3750

* Optional lesson

Lecture Total Clock Hours = 930
Laboratory Total Clock Hours = 0
Total Clock Hours = 930

K110 = 120
K120 = 150
Mod A = 270
L435 = 195
L436 = 195