



**DEPARTMENT OF TECHNICAL EDUCATION  
 CERTIFICATE IN ELECTRICAL WIRING TECHNOLOGY  
 CT-ELWIR**

**NAME:**

**ID No.:**

**CURRICULUM  
 EACH MODULE IS 1 CREDIT**

<u>REQUIREMENT</u>	<u>GRADE</u>	<u>SEM/YEAR</u>	<u>REQUIREMENT</u>	<u>GRADE</u>	<u>SEM/YEAR</u>
ELN 1101 How to Study This Course and Achieve Your Personal Goals			ELN 2113 Testing and Measuring with the Analog Digital Multimeter		
ELN 1102 Introduction to Test Instruments and Overcurrent Protection Devices			ELN 2114 Developing NEC Code Book Skills		
ELN 1103 Building Wire Construction and Insulation Properties			ELN 2115 Understanding the Design and Function of AC and DC Generators		
ELN 1104 Conduit Fabrication			ELN 2116 Laying-Out Residential Circuits and Basic Estimating		
ELN 1105 The Metric System and Metrication Changes			ELN 2117 AC Theory: Inductance		
ELN 1106 Blueprint Reading and Sketching			ELN 2118: AC Theory: Capacitance		
ELN 1107 DC Theory: OHM'S Law			ELN 2119 Working with Series and Parallel RL and RC Circuits		
ELN 1108 The DC Series Circuit			ELN 2120 Analyzing and Working with Combination RLC Circuits		
ELN 1109 The DC Parallel Circuit			ELN 2121 Filters, Power Factor and Power Factor Correction		
ELN 1110 The DC Combination Circuit			ELN 2122 Principles of Three Phase Systems		
ELN 1111 Norton's and Thevenin's Theorems and Kirchoff's Laws			ELN 2123 NEC-Branch Circuits 1&2 and Feeders and Services		
ELN 1112 Intro to the National Electric Code			ELN 2124 Cabling Assemblies & Wiring Methods		
ELN 3125 Health and Safety			ELN 4137 Lightning Protection Systems		
ELN 3126 Advanced Blueprint Reading			ELN 4138 AC Alternators		
ELN 3127 Semiconductor Theory			ELN 4139 Electronic Variable Speed		



			<b>Control</b>		
<b>ELN 3128 BJTs, MOSFET &amp; Other Transistor Types</b>			<b>ELN 4140 Motor Starters, Contactors and Control Relays</b>		
<b>ELN 3129 Differential &amp; Operational Amplifiers</b>			<b>ELN 4141 Manual and Automatic Operating Devices</b>		
<b>ELN 3130 Grounding and Bonding Fundamentals</b>			<b>ELN 4142 Timing Devices and DC Motor Controls</b>		
<b>ELN 3131 The Grounding Electrode System</b>			<b>ELN 4143 AC Motor Speed Control and Troubleshooting</b>		
<b>ELN 3132 Personnel Protection and Ground Fault Protection of Equipment</b>			<b>ELN 4144 Digital Electronics and Boolean Algebra</b>		
<b>ELN 3133 Grounding and Bonding of Electronic Equipment</b>			<b>ELN 4145 The Allen Bradley SLC 500 Family PLC's Air Conditioning and Refrigeration</b>		
<b>ELN 3134 Review of the Theory of Three Phase Transformers</b>			<b>ELN 4146 Air Conditioning and Refrigeration</b>		
<b>ELN 3135 NEC: Overcurrent Protection</b>			<b>ELN 4147 Cable Tray Systems and the NEC</b>		
<b>ELN 3136 NEC: Transformer Protection and Ground Fault Protection</b>			<b>ELN 4148 NEC Hazardous Locations Wiring Methods and Equipment</b>		
<b>ELN 5149 Motivation and Leadership</b>					
<b>ELN 5150 Fire Alarm Systems</b>					
<b>ELN 5151 Introduction to Instrumentation</b>					
<b>ELN 5152 Fundamentals of Controllers</b>					
<b>ELN 5153 Security Systems and Telephone Wiring</b>					
<b>ELN 5154 Structured Cabling Systems</b>					
<b>ELN 5155 Solar Panel Generation and Fuel Cell Basics</b>					
<b>ELN 5156 High Voltage Testing</b>					
<b>ELN 5157 Harmonics and Power Quality Surveys</b>					
<b>ELN 5158 Automation Networks</b>					
<b>ELN 5159 Understanding Emergency Building Installation Requirements</b>					
<b>ELN 5160 Electrical Load Calculations</b>					