# COURSE – L <u>INTRODUCTION TO INDUSTRIAL ELECTRONICS</u> <u>(Level 12)</u>

| TEXT BOOK:       | Electrical Principles and Practices - Mazur/Zurlis<br>(supplied by Schaedler / YESCO Distribution)   |
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| TOOLS/MATERIALS: | Students should bring the following to class:<br>- Calculator<br>- Textbook listed above<br>- Writing utensils and notepaper   |
| TIME FRAME:      | Half-day session (4 Hours)   |
| PREREQUESITE(s): | Course-A, Basic Industrial Electrical Theory I (Level 1)<br>Course-B, Basic Industrial Electrical Theory II (Level 2)<br>Course-C, Industrial Electrical Math (Level 3)<br>Course-D, Using Multimeters (Level 4)<br>Course-E, Reading Electrical Schematics (Level 5)<br>Course-F, Component Identification (Level 6)<br>Course-G, Basic Industrial Electrical Theory III (Level 7)<br>Course-H, Basic Industrial Electrical Theory IV (Level 8) |

## **General Sequence**

### Chapter 24 Electronic Control Devices

### At the end of this training session, students should be able to.....

#### Chapter 24

- List the advantages of solid-state controls.
- Compare the difference in the atomic structures of conductors, insulators and semiconductors.
- List and describe common products of doping.
- List and describe common types of semiconductor devices.
- Describe the function and common applications of diodes.
- Describe the function and common types of transistors.
- List and describe common methods of transistor identification and installation.
- List and describe common transistor applications.
- Describe the function and operation of Silicon Controlled Rectifiers (SCRs).
- Describe the function and operation of Triacs and Diacs.