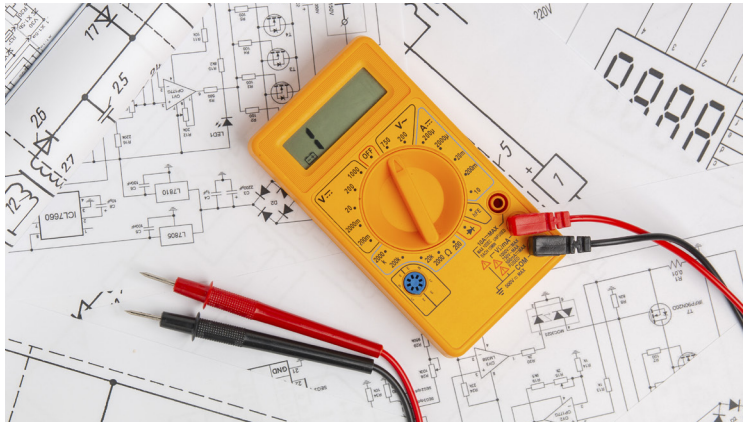


Engineering Drawings for Electrical Circuits

eLearning courses designed to increase productivity and profits



Learning Made Simple, Visual, and Interactive

The THORS *Engineering Drawings for Electrical Circuits* course introduces the learner to the drawing representation, the types of electrical diagrams, and the symbols used. Presented in THORS' highly visual and interactive learning format, this course will equip the learner with a foundational knowledge to interpret electrical drawings through case study examples.

Credit Hours **2.5**

Learning Objectives

- 💡 Develop an understanding of the drawing representation in electrical drawings.
- 💡 Identify the different types of electrical diagrams.
- 💡 Understand basic electrical circuit symbols.
- 💡 Analyze the various electrical circuit symbols used in electrical diagrams.
- 💡 Identify standards and conventions used in engineering drawings.

Table of Contents

I. Drawing Representation

- **Drawing Template**
 - ▣ Title Block
 - ▣ Legend Block
 - ▣ Drawing Notes Block
 - ▣ Drawing Zone
 - ▣ Grid Framework
 - ▣ Bill of Materials (BOM) Block
- **Electrical Diagrams**
 - ▣ Power System Diagrams
 - Single-Line Diagram (SLD)
 - Three-Line Diagram
 - ▣ Circuit Construction Diagrams
 - ▣ Control System Diagrams
 - Functional Block Diagram (FBD)
 - Ladder Diagram

II. Symbols

- **Power Supply Devices**
- **Control Devices**
 - ▣ Switches
 - ▣ Contactors
 - ▣ Isolators
- **Protection Devices**
 - ▣ Lightning Arresters
 - ▣ Fuses
 - ▣ Relays with Circuit Breakers
- **Measurement Devices**
- **Power Modification Devices**
- **Power Conversion Devices**
- **Indication Devices**

II. Symbols (Cont.)

- **Wires**
 - ▣ Lines
 - ▣ Connections

III. Case Study Examples

- **Case Study 1: Ladder Diagram**
 - ▣ Reading the Ladder Diagram
 - ▣ Interpreting the Ladder Diagram
- **Case Study 2: Schematic Diagram**
 - ▣ Control Circuit
 - ▣ Power Circuit

