

Aim of the programme

This practical course will give delegates an appreciation of electrical schematics and will develop their knowledge and understanding to be able to interpret basic electrical symbols and diagrams.

It builds on the strong foundation of knowledge that is achieved through attendance of the Electrical Principles for Engineers course and provides delegates with the knowledge to be able to converse with electrical engineers and technicians in relation electrical schematics.

As a result of attending this course, delegates will:

- Understand how to interpret basic block diagrams, layout diagrams and electrical drawings
- Be able to identify key symbols used in typical electrical engineering diagrams.
- Be able to identify selected components and understand how they function within a particular circuit
- Understand the techniques used in the layout of a typical set of electrical drawings.
- Be able to effectively converse on electrical schematics with electrical personnel
- Be able to develop your own understanding of electrical diagrams in your work environment

Who is the course for?

This course is designed for engineers and non-engineers at all levels with direct relevance for those with:

- responsibility for management of engineering workshops and maintenance functions
- involvement in engineering projects with an electrical element
- personnel whose job function requires an overview of electrical engineering

Content

The course includes the following core themes:

- **Review of basic electrical fundamentals and components**
 - Basic electrical terminology
 - Relays, solenoids, contactors, protection devices
 - PLC's, motors and controllers
- **Electrical schematics**
 - Block diagrams
 - Circuit diagrams
 - Relay ladder diagrams
 - Power system drawings
 - Control circuit examples
- **Typical electrical symbols to BS EN 60617**
 - General symbols
 - Current types
 - Contact and control types
 - Terminals and connections
 - Mechanical symbols
 - Indicators and electrical rotating machines
 - Letter codes for electrical components
- **Example drawings and layouts**

Structure

This is one day course will consist of presentations, led discussion and short workshop sessions.