

## ELECTRICAL MAINTENANCE COURSE OUTLINE



### Who should attend?

This programme is aimed at non-electrical personnel who are required to understand and carry out basic electrical maintenance tasks and fault finding on electrical machinery.

### About the course

This 'hands on' programme comprises of 2 x 5-day courses. Each course is deliberately planned to allow individuals to return to the workplace with new practical skills and knowledge to carry out basic electrical maintenance tasks. Delegates gain practical experience in using test equipment (e.g. multimeters, isolation testers, insulation testers etc.) as well as reading and interpreting circuit drawings. Delegates learn to wire up circuits and carry out fault finding on our electrical training rigs.

The training is formally certified through the awarding body EAL. Delegates must successfully complete the assessed practical tasks and knowledge tests on both 5-day courses in order to gain certification.

### Course outline

#### Week 1

Electrical Principles – fundamentals of voltage and current  
UK power network – overview of generation and transmission  
Basic First Aid – treatment of electric shock  
Protective devices – understanding fuses, circuit breakers and RCDs  
Safe isolation – practical procedures, including use of GS38 compliant testers  
UK legislation and electricity – insight into Electricity at Work Act 1989  
Electromagnetic induction – concepts behind motors, transformers and solenoids  
Three phase AC induction motors – principles and basic testing  
17th Edition Wiring Regulations - overview  
Lighting and 13A sockets – testing of circuits

## Week 2

Electronics – principles and practical setup of a DC power supply  
Basic AC motor control – wiring up DOL, star-delta and forward-reverse circuits  
AC Variable Speed Drives – principles and setup of simple drive system  
DC and Single Phase AC motors – principles and basic testing  
PAT testing – overview  
Earthing systems – types of system, practical testing  
Basic automation – design and wire up simple control circuits  
Programmable Logic Controllers – introduction and basic programming  
Static electricity – understanding of principles  
Building Regulations and Part P – basic overview  
Temperature control – basic understanding

## **Contact**

For more information, including course dates and prices, please call 01744 616 837 or email [info@waterside-training.co.uk](mailto:info@waterside-training.co.uk)