College of West Anglia

CWA Training

(SEVENTH EDITION)

cwa.ac.uk/employers

CWA Training

Delivering performance through people

CWA Training

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Above image: Technology Centre, College of West Anglia, King's Lynn

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Graphic design: Brendan Rallison – studio@brendanrallison.co.uk

Seventh Edition Version 1.1

What other courses do you offer?

A question often asked by both those that I meet for the first time to discuss training options and by customers attending our training programmes, this is not a question with a short answer! This training guide has been compiled to highlight the wide range of training programmes available through CWA Training at King's Lynn. Included are our most popular accredited courses alongside a selection of our bespoke programmes. Our bespoke course range has been developed over a number of years to meet specific training needs and address identified skills gaps.

I hope that this guide goes some way to providing the answer.

Paul Smith
Head of Employer Liaison, Partnerships and Commercial Training

About us

CWA Training, the training division of the College of West Anglia, is dedicated to helping your staff develop the right skills to improve their effectiveness, quality and productivity - key factors in improving the competitiveness of every business.

We have been providing training solutions for a wide range of clients for over 25 years. Our team of dedicated highly skilled and experienced industry professionals bring a wealth of knowledge to our range of accredited and tailor-made programmes.

We have earned a reputation for delivering high quality training with particular attention being paid to meeting customer needs.

From initial enquiry, CWA Training work to build effective relationships with our clients to develop and deliver programmes which are relevant to particular problems or identified skills gaps. Through dialogue our aim is to align courses specifically to the organisational needs of business.

We ultimately aim to deliver training which results in meaningful improvements in skills, staff effectiveness, quality and productivity.

This comprehensive guide highlights a range of our most popular accredited and bespoke programmes; however, this is not an exhaustive list as we aim to provide bespoke training solutions even if these popular courses may not specifically meet your training requirements.

For further details regarding the enclosed courses, or to discuss your general training needs, please contact:

CWA Training
The College of West Anglia
Tennyson Avenue
KING'S LYNN
Norfolk
PE30 2QW
cwa.ac.uk/employers

Course administration and booking
01553 815415
CWACommercial@cwa.ac.uk

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Contents

✔ = Bespoke programme. Those indicated above are either open courses for which suitable national certification is not available or for which tailored programmes can be created. Please enquire for further details.

CS = Customer Specific. Those programmes listed above as 'CS' are run at customer request for specific groups of client selected delegates.

✔ = Bespoke programme. Those indicated above are either open courses for which suitable national certification is not available or for which tailored programmes can be created. Please enquire for further details.

CS = Customer Specific. Those programmes listed above as 'CS' are run at customer request for specific groups of client selected delegates.

COMPUTER AIDED DESIGN - AUTOCAD

Computer Aided Design (CAD) is a computer-based application built to help design buildings, products, or public spaces, without having to draw up plans by hand. Our range of courses are based around the industry leading AutoCAD software as used by business and industry. This programme of courses has been updated and revised to take account of changes to the application software and qualification structure, with all three courses in the programme now based on AutoCAD 2023. CAD 1 is certificated by CWA Training, the award for courses CAD 2 and CAD 3 are vocational qualifications in Computer Aided Design. They have been designed by City & Guilds to meet the needs for a modern, up-to-date and flexible qualification in this important field. The courses are designed to cater for a wide range of commercial and industrial applications and would be particularly useful for architects, engineers and designers from all fields of business. Some typical applications include drafting and design of:

- Buildings and building components
- Layout of services
- Mechanical components and assemblies
- Electrical systems / diagrams
- Hydraulic / pneumatic systems
- Furniture

The courses range from introductory level up to level 3 (3D).

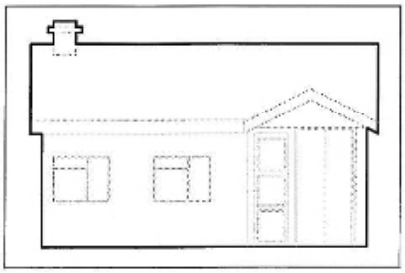
- An introduction to AutoCAD - CWA Certificated (CAD 1)
- Level 2 Award in 2D Computer Aided Design - City & Guilds 7689-04 (CAD 2)
- Level 3 Award in 2D Computer Aided Design - City & Guilds 7689-05 (CAD 3)

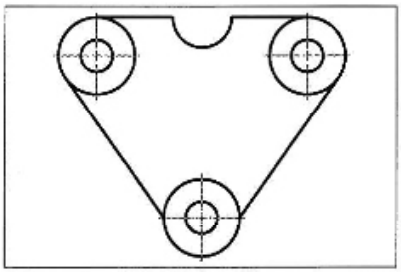
An introduction to AutoCAD - CWA Certificated (CAD 1)

Programme overview

This course is designed for those new to AutoCAD and is aimed at providing the basic tools and skills necessary to establish a firm foundation in computer aided design.

Typical drawings





Outline content

- Getting started
- Creating and saving drawings
- Using drawing commands
- Drawing set up
- Editing
- Aids to efficiency
- Adding text
- Adding dimensions
- Hatching and solid fill
- Plotting and printing

Prerequisites

A basic level of computer competence is necessary to enable delegates to get the most from this introductory course.

Course assessment

Assessment of the course is performed by the production of assessment drawings from course work and underpinning knowledge questioning.

Duration and venue

This course is run at CWA King's Lynn, 1 evening per week over 15 weeks.

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City & Guilds

Level 2 award in 2d Computer Aided Design City & Guilds 7689-04 (CAD 2)

Programme overview

This unit will equip candidates with the basic understanding and principles of 2D drawing environment, in terms of hardware, software, and physical surroundings. It will explore the typical composition of a CAD system and health and safety matters that are associated with safe working practices.

Outline content

1. Be able to use a CAD workstation safely
2. Be able to use key components in 2D CAD software
3. Be able to create lines and shapes relative to a co-ordinate system
4. Be able to use text, hatch and simple dimensioning routines
5. Be able to modify existing drawings
6. Be able to output a 2D drawing layout

Prerequisites

Delegates are using CAD regularly or have completed CAD 1 will be ideally prepared for this course.

Course assessment

Practical drawing tasks and short-answer questions.

Duration and venue

This course is run at CWA King's Lynn, 1 evening per week over 20 weeks.

Level 3 Award in 2d Computer Aided Design City & Guilds 7689-05 (CAD 3)

Programme overview

This unit will enable the learner to have the knowledge and practical skills to create complex drawings including annotations and output using multiple view layouts. It will also enable them to manage CAD drawing data and libraries in line with industry standards.

Outline content

1. Be able to use a CAD workstation safely
2. Be able to use layers, complex dimensions and text
4. Be able to produce complex drawings
5. Be able to carry out advanced editing processes
6. Be able to use methods to cleanse a CAD drawing
7. Be able to output drawings using multiple scale views

Prerequisites

A basic understanding of 2D CAD will be advantageous for candidates intending to undertake this course of study. Delegates who have completed the Level 2 AutoCAD City & Guilds 7689-04 (CAD 2) will be ideally prepared for this course.

Course assessment

Practical drawing tasks and short-answer questions.

Duration and venue

This course is run at CWA King's Lynn, 1 evening per week over 36 weeks.

ELECTRICAL ENGINEERING

CWA Training specialise in providing certificated and bespoke electrical engineering training and assessment programmes. Our range of courses include awareness, legislation, multi-skilling and professional upgrade. Programmes are delivered in our dedicated suite of training rooms including our 'mini factory granular production area'. We are able to offer training need assessments prior to training to ensure that delegates gain maximum benefit from being on the most appropriate programme. Our delegates on these courses typically include:

- Electricians
- Electrical engineers
- Engineering managers
- Engineering maintenance operatives
- Engineers from allied trades
- Machine operators and line setters

Our programme range includes:

- Electrical skills assessment
- BS 7671: 2018 IET Wiring Regulations 18th Edition, Level 3 Certificate in the Requirements for Electrical Installations - City & Guilds 2382-22
- Level 3 Award in the Initial Verification of Electrical Installations - City and Guilds 2391-50
- Level 3 Award in the Periodic Inspection of Electrical Installations - City & Guilds 2391-51
- Level 3 Award in Inspection and Testing of Electrical Installations - City & Guilds 2391-52
- Code of Practice for In-Service Inspection & Testing of Electrical Equipment (Portable Appliance Testing) - City & Guilds 2377-77
- Industrial Electrical Maintenance Skills (Assured by City & Guilds) – for Maintenance Engineers
- Electrical fault finding techniques
- Industrial automation - Programmable Logic Controllers (PLC)
- Electrical maintenance refresher for maintenance engineers
- Safe access and resetting of protective devices in LV process plant control panels
- Electricity At Work Regulations 1989

CS
Customer Specific

Electrical Skills Assessment

Assessment overview

This assessment programme is designed to measure underpinning knowledge and practical skills application of those working or intending to work within an industrial electrical maintenance environment. This assessment uses a range of paper based and practical activities which cover a number of key industrial maintenance areas.

Assessment topics

Each candidate is assessed in the following areas:

1. Fundamental underpinning knowledge. 70 question multiple choice paper covering:
   - Legislation, regulation and general electrical safety
   - Circuit protection
   - Motors, motor controls and starting
   - Symbols, circuit diagrams and fault finding
   - Testing and measurement
   - Electrical science
   - Sensors
   - Switching and isolation
2. Reading electrical drawings. Paper based exercise to determine specific electrical components, current paths and operating voltages using a set of complex machine diagrams.
3. Modifying electrical drawings. Paper based exercise to identify suitable sections to modify in line with a given physical modification scenario.
4. Electrical isolation in accordance with BS 6423. Practical assessment using multi-phase multiple supply industrial control panel.
5. Testing of 3 - phase induction motors for serviceability. Practical assessment to determine insulation and continuity resistance and interpret test results.
6. Component replacement. Practical assessment to identify, select replacement, install and set replacement component within 3 phase control panel.
7. Fault finding. Practical fault finding assessment based on given operator reported symptoms and machine specific drawings.
8. Wiring task. Practical wiring of control circuit including additional stages to further modify circuit and associated circuit diagrams.

Assessment feedback

A full break down of performance across all assessments is provided within two weeks of assessment.

Duration and venue

This course is run at CWA King's Lynn, over 1 day duration.

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City & Guilds

Level 3 Certificate in The Requirements for Electrical Installations City & Guilds 2382-22

BS 7671: 2018 IET WIRING REGULATIONS 18TH EDITION

Programme overview

The IET Wiring Regulations (BS 7671) are the definitive standards for the electrical industry in respect of safe use and operation of electrical equipment and systems. They set requirements and operating criteria for the UK and correspond to EC standards. They are recognised by the British Standards Institute as a British Standard (BS 7671). BS 7671: 2018 Requirements for Electrical Installations (IET Wiring Regulations 18th Edition), was issued on 1st July 2018 and came into effect on 1st January 2019. Subsequent amendments made by the IET will be included in this course ensuring your qualification is up to date.

City & Guilds have revised the existing qualifications that relate to BS 7671 and now offer a single qualification designed to meet the needs of industry and employers;

- City & Guilds 2382-22 - Level 3 Certificate in the Requirements for Electrical Installations BS7671: 2018 (including amendments)

Outline content

Part 1 - Scope, object and fundamental principles
Part 2 - Definitions
Part 3 - Assessment of general characteristics
Part 4 - Protection for safety
Part 5 - Selection and erection of equipment
Part 6 - Inspection and testing
Part 7 - Special installations or locations Use of appendices

Prerequisites

There are no formal entry requirements for learners undertaking this qualification. However, it is expected that learners will have basic knowledge of electrical science.

Required documentation

Delegates will require a copy of the latest IET Wiring Regulations BS 7671:2018 (incorporating all amendments) for the duration of the course and assessment.

Course assessment

Learners will be required to complete the City & Guilds 2382-22 multiple choice on-line assessment. This assessment is 2 hours in duration comprising of 60 questions.
This is an open book assessment and learners will be allowed to take in the following permitted reference material: IET Wiring Regulations BS 7671: 2018 (incorporating all amendments). Learners will also require a non-programmable calculator.

Duration and venue

This course is run at CWA King's Lynn, 1 day a week, over 3 weeks. Plus 2 hours for multi choice assessment.

City & Guilds 2382-22 : City & Guilds also offer an update course for those who have the City & Guilds 2382-18 qualification and would like to attain the current City & Guilds 2382-22 qualification. To attend this one-day course proof of the City & Guilds 2382-18 qualification is required. The course assessment is as per the standard City & Guilds 2382-22 qualification requirements.

Level 3 Award in Initial Verification - City & Guilds 2391-50

Programme overview

All personnel involved in the inspection and testing of electrical systems must be competent to do so. This 4-day short course following the City & Guilds 2391- 50 'Initial Verification of Electrical Installations' scheme provides detailed practical training and underpinning knowledge in this important area. This course is designed to reflect the requirements of BS 7671: 2018 18th Edition IET Wiring Regulations.

City & Guilds 2391- 50 is essentially aimed at practicing electricians who have not yet carried out any extensive inspection and testing since acquiring the 18th edition qualification or since qualifying; or who require some update of their training before going on to other City & Guilds qualifications. The qualification is also suitable for those with limited experience of initial verification of electrical installations.

Although the course is principally designed for those who are already involved in the electrical industry, it is suggested that those who are considering entering the industry, particularly from other engineering disciplines or who have been working in allied trades may find the course beneficial. This course is practically based with all aspects of the inspection, testing and certification process being covered in line with BS 7671: 2018.

Outline content

The Level 3 Award in Initial Verification of Electrical Installations -
City & Guilds 2391- 50, consists of 5 learning outcomes. The learner will be able to:

- Understand the requirements for initial verification of electrical installations
- Understand the safety management procedures when undertaking initial verification
- Understand the requirements for the initial inspection of an electrical installation
- Understand the requirements for testing electrical installations at initial verification
- Confirm safety of system and equipment prior to completion of inspection, testing and commissioning
- Perform inspection and testing of electrical installations.

Prerequisites

We strongly recommend that before attending this course delegates have completed a period of study on the 'Requirements for Electrical Installations' - IET Wiring Regulations 18th Edition, BS 7671: 2018. The City & Guilds 2382-22 certificate would be satisfactory evidence of such a study. It would also be expected that learners have a basic knowledge and understanding of electrical science and principles as well as experience of electrical installation work either within the electrical contracting industry or an allied trade.

Required documentation

Delegates are required to have a copy of the following publications for the duration of the course:

- IET 18th Edition of the Wiring Regulations BS 7671: 2018 incorporating all amendments

Course assessment

The assessment of this qualification is in three parts:

- City & Guilds 2891 - 050 Initial Verification of Electrical Installations – multiple choice - 40 questions (GOLA exam: 90 minutes)
- City & Guilds 2391 - 500 Initial Verification of Electrical Installations – written and practical assessment (1 day)

Duration and venue

This course is run at CWA King's Lynn, 1 day per week over 4 weeks plus a further half day is allocated to carry out the assessment elements.

Level 3 Award in Periodic Inspection - City & Guilds 2391-51

Programme overview

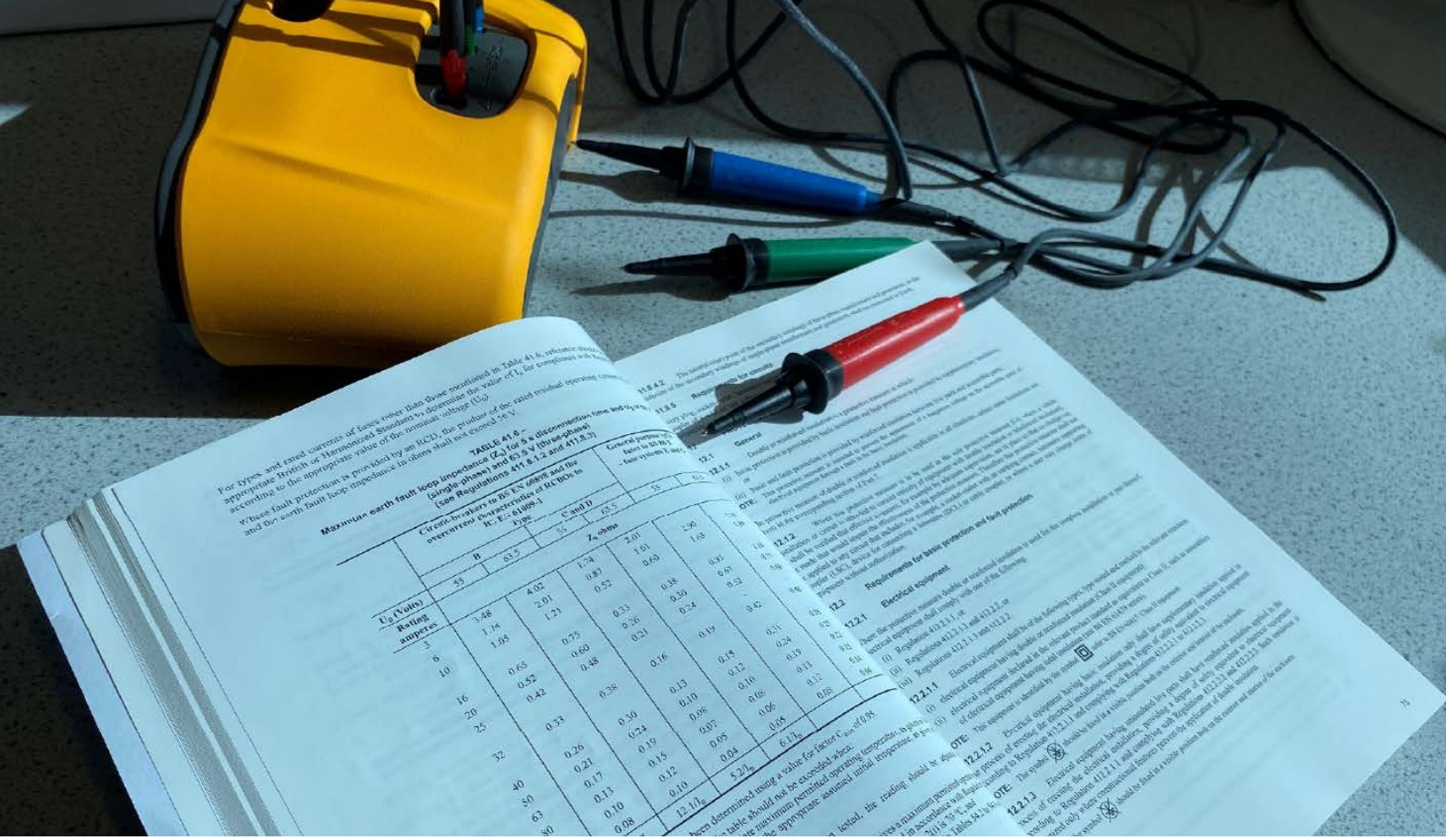
All personnel involved in the inspection and testing of electrical systems must be competent to do so. This 4-day short course following the City & Guilds 2391-51 'Periodic Inspection of Electrical Installations' scheme provides detailed practical training and underpinning knowledge in this important area. This new course is designed to reflect the requirements of BS 7671: 2018 18th Edition IET Wiring Regulations.

The qualification is aimed at practicing electricians who have not carried out inspection and testing since qualifying or for those with limited experience of periodic inspection of electrical installations. The course is practically based with all aspects of the inspection, testing and certification process being covered in line with BS 7671: 2018.

Outline content

The Level 3 Award in the Periodic Inspection, Testing and Certification of Electrical Installations - City & Guilds 2391-51, consists of 5 learning outcomes. The candidate will be able to:

- Understand the requirements for the periodic inspection and testing
- Understand safety management procedures when undertaking periodic inspection and testing
- Understand the requirements for the periodic inspection of an electrical installation
- Understand the requirements for testing electrical installations during periodic inspection and test
- Perform periodic inspection and testing of electrical installations



Prerequisites

We strongly recommend that before attending this course a period of study on the 'Requirements for Electrical Installations' - IET Wiring Regulations 18th Edition, BS 7671: 2018 is undertaken. The City & Guilds 2382-22 certificate would be satisfactory evidence of such study. It would also be expected that learners have a basic knowledge and understanding of electrical science and principles as well as experience of electrical installation work either within the electrical contracting industry or an allied trade.

Required documentation

Delegates are required to have a copy of the following publications for the duration of the course:

- IET 18th Edition of the Wiring Regulations BS 7671: 2018 incorporating all amendments

Course assessment

The assessment of this qualification is in three parts:

- City & Guilds 2391 - 051 Periodic Inspection and Testing of Electrical Installations – multiple choice - 40 questions (GOLA exam: 90 minutes)
- City & Guilds 2391 - 501 Periodic Inspection and Testing of Electrical Installations – written and practical assessment (1 day)

Duration and venue

This course is run at CWA King's Lynn, 1 day per week over 4 weeks
plus a further half day is allocated to carry out the assessment elements of the course.

Level 3 Award in Inspection and Testing - City & Guilds 2391-52

Programme overview

All personnel involved in the inspection and testing of electrical systems must be competent to do so. This 6 day short course following the City & Guilds 2391-52 "Inspection and Testing of Electrical Installations" scheme provides detailed practical training and underpinning knowledge in this important area. This brand new hybrid course is designed to focus on both initial verification and periodic inspection and condition reporting of electrical installations giving a faster route to qualification in all areas.

This qualification 2391-52 is aimed at practising electricians who have not gained an inspection and testing qualification since qualifying or who require an update to training before going on to other City & Guilds qualifications. The qualification is also suitable for those with limited experience of initial and periodic inspections of electrical installations.

Although the course is principally designed for those who are already involved in the electrical industry, it is suggested that those who are considering entering the industry, particularly from other engineering disciplines or who have been working in allied trades may find the course beneficial.

This course is practically based with all aspects of the inspection testing and certification process being covered in line with BS 7671: 2018.

Outline content

The level 3 award in inspection and testing of electrical installations – City & Guilds 2391-52, consists of 5 main learning outcomes. The candidate will be able to:

- Understand requirements for inspection and testing
- Understand safety management procedures when undertaking inspection and testing
- Understand the requirements for the inspection of electrical installations
- Understand the requirements for testing electrical installations
- Perform inspection and testing of electrical installations.

Prerequisites

We strongly recommend that before attending this course delegates have completed a period of study on the "Requirements for Electrical Installations" – IET Wiring Regulations 18th Edition, BS 7671: 2018. The City & Guilds 2382-22 certificate would be satisfactory evidence of such study. It would also be expected that candidates have a basic knowledge and understanding of electrical science and principles as well as experience of electrical installation work either within the electrical contracting industry or an allied trade.

Required documentation

Delegates are required to have a copy of the following publications for the duration of the course:

- IET 18th Edition of the Wiring Regulations BS 7671: 2018 incorporating all amendments

Course assessment

The assessment of this qualification is in three parts.

- City & Guilds 2391-052 Initial and Periodic Inspection and Testing – multiple choice – 60 questions (GOLA exam: 2 hours)
- City & Guilds 2391 - 502 Initial and Periodic Inspection and Testing of Electrical Installations – written and practical assessment (1 day)

Duration and venue

This course is run at CWA King's Lynn, 1 day per week over 6 weeks plus a further half day is allocated to carry out the assessment elements of the course.

Code of Practice for In-Service Inspection & Testing of Electrical Equipment (Portable Appliance Testing) - City & Guilds 2377-77

Programme overview

The Electricity at Work Regulations 1989 state, "as may be necessary to prevent danger, all systems shall be maintained so as to prevent, so far as is reasonably practicable, such danger".

This updated City & Guilds 2377-77 course will train personnel that are responsible for the management and scheduling of electrical equipment testing (also known as PAT), as well as the practical application of electrical equipment and portable appliance tests, which includes visual inspections and specific instrument tests. This course is based on the current IET Code of Practice for the In-service Inspection & Testing of Electrical Equipment.

City & Guilds 2377-77 is the benchmark qualification for anyone who intends to carry out the in-service inspection and testing of electrical equipment, also known as Portable Appliance Testing (PAT). This course is not simply to provide learners with training on what is required to carry out the testing and inspection of electrical equipment, but importantly, it will also provide delegates with the necessary awareness of the potential danger associated with different types and class of electrical equipment they are likely to encounter. The course is certified by City & Guilds, and it will provide those who are successful with the knowledge and confidence towards attaining competency for the job role for 'n-Service Inspection & Testing Of Electrical Equipment.

Outline content

This programme covers the following topic areas:

- The definitions used within the IET Code of Practice for In-Service Inspection and Testing of Electrical Equipment
- The statutory and non-statutory requirements relevant to the management and maintenance of electrical equipment
- The electrical units of measurement associated with in-service inspection and testing of electrical equipment
- The equipment construction classes and methods of protection within an electrical installation and how these relate to the provision of protection against electric shock
- The procedures for the in-service inspection and testing of electrical equipment

- How to carry out combined inspection and testing
- The information that needs to be recorded following in-service inspection and testing of electrical equipment
- To inspect and test items of electrical equipment which are connected to the electrical installation by any means,

Prerequisites

For the benefit of learners City & Guilds state:

'It is expected that candidates attempting the qualification should be familiar with electrical systems and hazards of electricity in order to satisfactorily complete the qualification.'

City & Guilds Qualification Handbook

Required documentation

Learners will require a copy of the 5th Edition 'IET Code of Practice for In-Service Inspection of Electrical Equipment' for the duration of this course and assessment.

Course assessment

All learners are assessed via a 50 question online multiple-choice examination; this will be an "open book" examination. There is also a separate practical assignment which requires the learner to demonstrate the correct testing of a Class 1 and a Class 2 item of equipment, and the completion of the applicable record forms.

Duration and venue

This course is run at CWA King's Lynn, over 2 consecutive days, plus additional attendance for online examination.

Industrial Electrical Maintenance Skills (Assured by City & Guilds) – for Maintenance Engineers

Programme overview

This popular course was developed by the College of West Anglia in conjunction with City & Guilds to meet the needs of local industry. The course is of a practical nature with only the inclusion of essential related theory.

The course is aimed at mechanical engineers/fitters or electrical engineers who require a fundamental understanding of industrial electrical systems and will give them the necessary skills to carry out 'first line' electrical maintenance in a safe and competent manner.

Outline content

The course includes a wide range of topics all with a 'hands- on' approach, with safety as an underlying theme. Topics include:

- Electrical safety and first aid
- Electricity at Work Regulations
- Safe isolation techniques
- Electrical science
- Cables and terminations
- Electrical power distribution – single and three phase
- Earthing arrangements
- Power circuits
- Circuit protection and protective devices
- Control circuits including introduction to PLCs
- Safety circuits – safety relays
- Industrial sensors
- Temperature and PID control
- Electrical drawings
- Motors and motor control systems including VSDs
- Testing of induction motors
- Safe use of test equipment
- Fault finding techniques on industrial power and control systems

Required documentation

All course notes and supporting documentation are supplied for this programme.

Course assessment

Each learner must successfully complete eight practical competence tasks, as listed, together with obtaining 80% or above in the final knowledge assessment.

- Task 1 Procedures in the Event of Electric Shock
- Task 2 Distribution Board Circuit Isolation
- Task 3 Breakdown Maintenance Exercise
- Task 4 Proximity Switch Circuit
- Task 5 Direct On-Line Reversing Circuit
- Task 6 Fault Diagnosis and Repair Incorporating 3-Phase Motor Control Panel Isolation

Duration and venue

This course is run at CWA King's Lynn, over 30 days. The course is generally run as week on week off for 12 weeks.

Further details

Further information relating to this programme can be found in our course specific Industrial Electrical Maintenance Skills Training Guide.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Industrial Automation - Programmable Logic Controllers (Plc 1, 2, 3 & 4)

Programme overview

Programmable Logic Controllers (PLCs) now play a vital role in all forms of automation and control. The range of equipment being controlled in this way is becoming increasingly diverse, from micro PLCs controlling simple automatic doors, HVAC systems and agricultural grain handling plant to larger modular PLCs controlling complex industrial processes. Activities where an understanding of PLCs is required include:

- Control panel design and installation
- Commissioning of plant and equipment
- Maintenance activities
- Fault diagnosis relation

Hardware and software

Our PLC programmes use our bespoke training rigs which have been designed to support learning across all three courses. These rigs contain Mitsubishi FX PLC and are supported by Mitsubishi GX developer software.

We are also able to offer training using Siemens Simatic S7 PLCs and STEP 7 software.

Prerequisites

Learners wishing to attend these programmes should discuss their existing level of experience and exposure to PLCs with us to ensure that the correct programme level is selected.

Required documentation

All course notes and supporting documentation are supplied for these programmes.

Course assessment

Each programme is assessed by a combination of assignments and short written tests.

PLC 1

Outline content

- Introduction to PLC's and their applications
- Inputs and Outputs – types, addressing etc.
- Programmable logic – AND, OR and NOT
- Introduction to CWA Training Rig
- Relationship between field devices, inputs status, application programme and output status
- Overview of PLC features and functions
- Introduction to programming software – MELSOFT GX Works3
- Development of simple application programmes
- Multiple choice assessment

Duration and venue

This course is run at CWA King's Lynn, over 1 Day duration.

PLC 2

Outline content

- Summary of PLC1
- Typical PLC hardware specification
- Creating a new application programme with MELSOFT GX Works3
- File handling and storage
- Programming languages- LAD, FBD, IL, SFC, ST
- Digital Inputs and Outputs – applications
- Overview of Analogue Inputs and Outputs – Types and applications
- Flags and their applications
- Further application programme development using MELSOFT GX Works3
- Simple programme search techniques
- X-referencing
- Timing applications
- Counting application
- Introduction to special functions
- Consolidation application programme development
- Introduction to programme documentation
- Diagnostic techniques
- Course Assessment

Duration and venue

This course is run at CWA King's Lynn, over 2 Days duration.

PLC 3

Content:

- Summary of PLC1 and PLC2
- Overview of Mitsubishi Electric PLC Family
- Introduction to analogue signal processing
- Analogue interfacing – ADC/DAC
- Application programming involving analogue data signals
- Mathematical functions and their applications
- Signal conditioning – hardware & software
- Programme conversion – hardware update
- Search techniques – find/replace
- Programme modification
- MELSOFT GX Works3 as a maintenance tool for fault diagnosis
- Programme structure of complex systems
- Introduction to the application of HMI's – types, functions
- Introduction to HMI programming software
- HMI replacement techniques – uploading/downloading programmes
- Modification of HMI programmes
- Modification, debugging and fault finding on PLC controlled industrial systems
- Course assessment

Duration and venue

This course is run at CWA King's Lynn, over 3 Days duration.

PLC 4

Content:

- Summary of PLC3
- Overview of industrial networks
- Applications of CC link
- Programming of remote digital and analogue I/O
- Controlling a CC Link networked VSD
- Development of a CC Link network
- Further analogue signal processing
- Advanced PLC functions
- Development of a HMI programme
- Development, modification and debugging of a system application programme
- Programme documentation
- System fault finding techniques and practice
- Course assessment

Duration and venue

This course is run at CWA King's Lynn, over 2 Days duration.

Electricity at Work Regulations 1989 and Safe Isolation Training and Assessment

Programme overview

The Electricity at Work Regulations 1989 (EAWR) places a legal obligation on employers and employees to ensure that electrical systems used at work are safe. The Health and Safety at Work Act 1974 generally considers all working environments, however EAWR places specific duties on all work activities that involve electricity, from simple battery powered equipment up to and including the Super Grid at 400,000 volts.
This one-day short course is designed to update and refresh engineering personnel involved either directly or indirectly in electrical engineering / maintenance activities, i.e. those classed as duty holders under EAWR 1989.

The course is also designed for maintenance personnel who are required to carry out electrical isolation on a range of 3-phase industrial control panels and associated equipment. This course will give learners the skills and knowledge required to safely isolate an electrical installation or part of it. The course is intended to confirm that learners understand how to correctly select and use suitable test equipment to isolate all of, or part of, an electrical installation to allow work to safely commence and to fulfil their responsibilities as 'duty holders'. This course covers LV switching only, including legislative requirements.

Outline content

This short course will cover the following topics:

- Duty holders – How do the Regulations apply to you?
- Relationship with Health and Safety at Work Act and BS7671: 2018
- Overview of Electricity at Work Regulations 1 to 16, 29 and 30
- The need for, and implications of, electrical isolation
- Correct selection of voltage testing equipment
- HSE Guidance, the requirements of GS38 [Fourth Edition] - Safe use of electrical test instruments
- CAT ratings of equipment and instrument leads
- Control panel safe working practices - IP2X and IPXXB.
- Procedures to be followed for correct isolation of three phase supplies - demonstration
- Isolation of three phase supplies - Practical Assessment [CWA Factory]
- Final Assessment [Short written paper]

Duration and venue

This course is one day in duration, taking place at the Commercial Training Suite and Mini-Factory at The College of West Anglia, King's Lynn. PE30 2QW.

CS
Customer Specific

Safe Access and Resetting of Protective Devices in LV Process Plant Control Panels

Programme overview

Regulation 14 (EAWR) regards work on or near live conductors and the need for precautions to be taken to prevent injury. This one-day training course is aimed at machine operators and line setters / line leaders to enable, as may be necessary, them to perform reactive maintenance in a safe and competent manner. It will provide underpinning knowledge and practical skills to enable such operators to safely and competently switch (for mechanical maintenance) and access LV control panels. The course also covers the best practice and principles to be applied when resetting a range of overcurrent protective devices associated with LV control panels applicable across a wide range of plant and equipment. Regulation 16 (EAWR) further qualifies that employees should be trained and instructed to ensure that they understand the safety procedures which are relevant to their work and work in accordance with any instruction for safety.

Outline content

This programme covers the following topic areas:

- Overview of the Electricity at Work Regulations 1989
- Switching for maintenance
- Control panel safe working practices - IP2X and IPXXB
- Causes of overcurrent
- Distinguishing between overload current and fault current
- Operation of overcurrent protective devices
- Operation of motor overload devices
- Device recognition specific to client plant and systems (if held on client premises)
- Resetting of protective devices processing plant control panels (best practice)

Required documentation

All course notes and supporting documentation are supplied for this programme.

Course assessment

There will be a short test on the theory content of the programme. This will involve answering a number of questions with short responses.

Duration and venue

This course can be run at CWA King's Lynn or on clients premises, over 1 day duration.

Electricity at Work Regulations 1989

Programme overview

The Electricity at Work Regulations 1989 is the overarching legislative document with regard to work of an electrical nature. This one-day course is designed to give learners an in depth understanding of the interpretation and application of the Electricity at Work Regulations. This course also covers electrical safety aspects from HSE Guidance Note GS38 Electrical test equipment for use by electricians.

This course is suitable for employers, managers, the self-employed and employees whether directly or indirectly involved in electrical work activities. Typical learners include; electrical engineers, site managers, maintenance technicians and trainees.

Outline content

This programme covers the following topic areas:

- Scope and purpose of the Electricity at Work Regulations 1989
- Duty holders
- Relationship with Health & Safety at Work Act, PUWER 98 and BS 7671: 2018
- Overview of Electricity at Work Regulations 1 to 16, 29 and 30
- Safe isolation techniques
- Dangers of electricity in various environments
- Competence and training
- Inspection and testing
- Case studies

Required documentation

All course notes and supporting documentation are supplied for this programme. A copy of the 'Memorandum of Guidance on the Electricity at Work Regulation 1989' will also be supplied to each learner.

Course assessment

There will be a short test on the theory content of the programme. This will involve answering a number of questions with short and multiple choice responses.

Duration and venue

This course can be run at CWA King's Lynn or on clients premises, over 1 day duration.

MECHANICAL MAINTENANCE ENGINEERING

CWA Training specialise in providing bespoke and certificated mechanical engineering training and assessment programmes. Our range of courses includes awareness, legislation, multi-skilling and professional upgrade.

Programmes are delivered in our dedicated suite of training rooms including our 'mini factory granular production area' and maintenance workshop.

We are able to offer training need assessments prior to training to ensure that learners gain maximum benefit from being on the most appropriate programme. Our learners on these courses typically include:

- Machine operators
- Maintenance engineers
- Engineering managers
- Line setters and supervisors
- Engineers from allied trades
- Electrical engineers

Our programme range includes:

- Safety in the use of abrasive wheels
- Pneumatic system maintenance skills
- Hydraulic system maintenance skills
- Fundamental maintenance skills for production and maintenance engineers
- Fundamental workshop and machine shop safety
- Mechanical comprehension and skills assessment
- Engineering workshop equipment - fundamental safety and competence assessment (vertical mill)
- Engineering workshop equipment - fundamental safety and competence assessment (centre lathe)
- Tungsten inert gas shielded welding - 4 module introductory programme

Safety in The Use of Abrasive Wheels

PROVISION AND USE OF WORK EQUIPMENT REGULATIONS (PUWER 1998) HSE - HSG 17

Programme overview

In relation to 'abrasive wheels', PUWER 98 requires, among other things, that all machinery is suitable for its intended use and is properly maintained, and that employees, including those using, mounting and managing the operation of abrasive wheels, are fully informed and properly trained in their safe use. This fully revised 1-day short course provides the necessary training to satisfy the general requirements of PUWER 98 and HSE guidance document HSG 17.

Outline content

This programme covers the following topic areas:

- Hazards arising from the use of abrasive wheels
- Safe use of abrasive wheels
- Methods of marking abrasive wheels as to type and speed
- Methods of storing, handling and transporting abrasive wheels
- The functions of all components used with abrasive wheels, including flanges, blotters, bushes and nuts
- Methods of trimming and dressing abrasive wheels
- Adjustment of work rests
- Balancing

Required documentation

All course notes and supporting documentation are supplied for this programme.

Course assessment

There will be a short test on the theory content of the programme. This will involve answering a number of questions with short written responses. Text books may be used throughout.

The practical aspects of this course will also be assessed with candidates demonstrating the changing of a grinding wheel on a portable machine or on an off-hand grinding machine.

Duration and venue

This course is run at CWA King's Lynn, duration is 1 day.

CS
Customer Specific

Pneumatic Systems Maintenance Skills

Programme overview

This bespoke programme is designed to update and refresh engineering personnel involved with the design, installation, maintenance, operation and servicing of pneumatic equipment and control systems. The course is also designed to familiarise delegates with the construction and operation of pneumatic components and enhance existing skills to enable more accurate diagnosis of common faults through interpretation of circuit diagrams.

Outline content

As this is a bespoke programme, the topics below can be selected to create a tailored training package:

- Health and safety relating to pneumatic systems
- Properties of compressed air
- Air preparation
- Pneumatic drives
- Air cylinders
- Speed control
- Control valve types including solenoid control
- Introduction to pneumatic symbols and circuit diagrams
  - Understanding specific to client equipment
  - Component interaction
  - Use as an aid to fault diagnosis
- Maintenance and fault finding

Prerequisites

The following points are recommended to enable further tailoring of the outcomes and development of specific elements of training materials for this programme:

- Close working between CWA and client team to gain a wider understanding of specific pneumatic application as per client equipment function
- Access to client machine specific pneumatic components (as required)
- Access to client machine specific pneumatic diagrams
- Access to client standard service / PPM regime
- Access to client pneumatic fault history

Required documentation

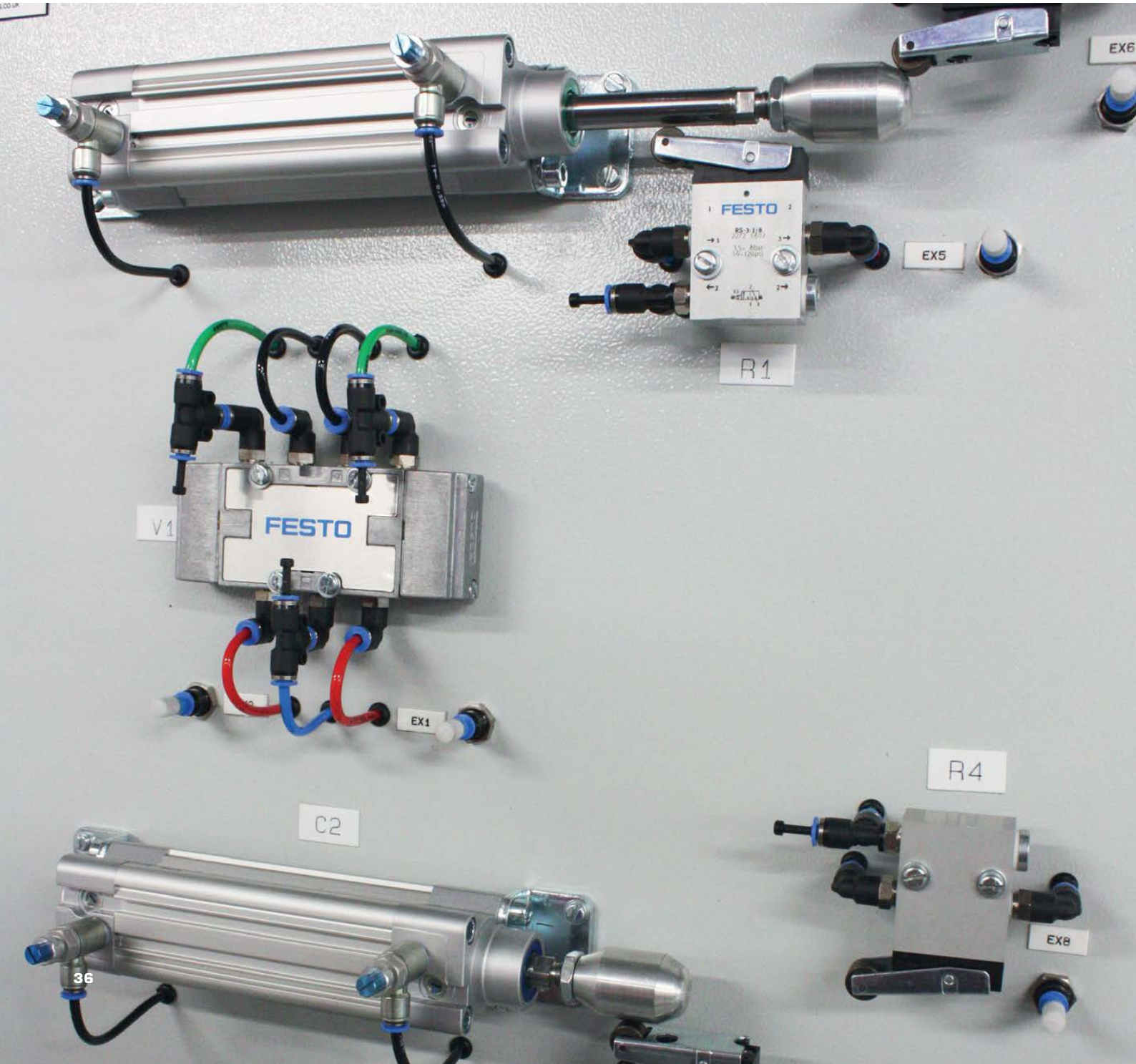
All course notes and supporting documentation are supplied for this programme.

Course assessment

A written test on the theory content of the programme, requiring short response answers.

Duration and venue

This course is run at CWA King's Lynn. Duration is dependent upon content, typically from 1 - 3 days.



CS
Customer Specific

Hydraulic Systems Maintenance Skills

Programme overview

This bespoke programme is designed to update and refresh engineering personnel involved with the design, installation, maintenance, operation and servicing of hydraulic equipment and control systems. The course is also designed to familiarise delegates with the construction and operation of hydraulic components and enhance existing skills to enable more accurate diagnosis of common faults through interpretation of circuit diagrams.

Outline content

As this is a bespoke programme, the topics below can be selected to create a tailored training package:

- Health and safety relating to hydraulic systems
- Fluids - storage and conditioning
- Oil cooling
- Open and closed loop circuits
- Pressure, flow and speed control
- Directional control valves
- Pressure relief valves
- Solenoid valves
- Over centre valves
- Purge valves
- Priority valves
- Hydraulic motors and pumps
- Seals
- Hydraulic symbols and circuit diagrams
  - Understanding specific to client equipment
  - Component interaction
  - Use as an aid to fault diagnosis
- Maintenance and a systematic approach to fault finding

Course prerequisites

The following points are recommended to enable further tailoring of the outcomes and development of specific elements of training materials for this programme:

- Close working between CWA and client team to gain a wider understanding of specific hydraulic application as per client equipment function
- Access to client machine specific hydraulic components (as required)
- Access to client machine specific hydraulic diagrams
- Access to client standard service / PPM regime
- Access to client hydraulic fault history

Required documentation

All course notes and supporting documentation are supplied for this programme.

Course assessment

A short test on the theory content of the programme. This will involve answering a number of questions with short written responses.

Duration and venue

This course is run at CWA King's Lynn. Duration is dependent upon content, typically from 1 - 3 days.

CS
Customer Specific

Fundamental Maintenance Skills for Production Operatives and Maintenance Engineers

Programme overview

This bespoke programme of underpinning knowledge is intended for technical line setters and operators or engineering personnel involved with first line maintenance operations, including setting and adjustment of production equipment and control systems. The course is designed to provide delegates with a fundamental awareness and skill level to enable them to carry out first line maintenance activities across a number of engineering disciplines.

Outline content

This is a bespoke training programme limited to a maximum of 8 candidates.
Each module is typically 4 hours minimum unless otherwise indicated:

- Health and safety relating to maintenance
- Components of a machine
- Types of maintenance / lubrication
- Dismantlement, adjustment and re-assembly
- Shafts, hubs and alignments (utilises a range of test rigs)
- Gearboxes / gear drives
- Chain drives (utilises CWA granular factory conveyor systems)
- Belt drives (utilises CWA granular factory conveyor systems)
- Pneumatics (1 day)
- Hydraulics (6 hours)
- Bearings and seals
- Pumps / vacuum pumps
- Conveyor systems

Also included is the manufacturing of a task requiring basic metalworking and measuring skills.

All modules are based on a blend of theory, underpinning knowledge and practical activity.

Prerequisites

The following points are recommended to enable further tailoring of the outcomes and development of specific elements of training materials for this programme:

- Close working between CWA and client team to gain a wider understanding of specific maintenance application as per client equipment function
- Access to client machine specific components (as required)
- Access to client machine specific diagrams
- Access to client standard service / PPM regime
- Access to client machine fault history

Required documentation

All course notes and supporting documentation are supplied for this programme.

Course assessment

A practical project is included to allow delegates to apply skills and knowledge gained to solve a typical engineering problem. The completed project is presented back to company managers on the final day.

Duration and venue

This course is run at CWA King's Lynn.
Duration is 20 Days

CS
Customer Specific

Fundamental Workshop and Machine Shop Safety

Programme overview

All mechanical motion is potentially hazardous, employees using machines and power tools are faced with a potential risk of injury due to fast moving parts. These risks can be reduced by ensuring that employees understand the safe operating procedures for machines and power tools. Personnel working within machine shops or areas where they are exposed to machinery or equipment hazards must be aware of the potential for accidents.

This one day awareness programme is designed for maintenance employees and is intended to give sufficient knowledge and understanding of workshop hazards and safety precautions to be applied when working with workshop equipment including; pedestal drills, bench and off hand grinders, lathes and milling machines.

Outline content

The following topics are covered on this programme:

- Workshop hazards
- Safe use of drills, offhand grinders and lathes
- The functions of all components and tooling used with pedestal drills, bench and off-hand grinders, lathes and milling machines
- Machine terminology
- Knowledge of principles of workshop practices to include drill angles, drill faults, tool angles and work holding devices

Prerequisites

The following is recommended to enable further tailoring of the outcomes and development of specific elements of training materials for this programme:

- Close working between CWA and client team to gain a wider understanding of specific workshop equipment, typical function and workshop staff profile

Required documentation

All course notes and supporting documentation are supplied for this programme.

Course assessment

A test on the theory content of the programme, is by questions requiring short written response answers.

Duration and venue

This course can be run at CWA King's Lynn or client specific venue. Over 1 day duration.

CS
Customer Specific

Mechanical Comprehension and Skills Assessment

Assessment overview

This assessment programme is designed to measure underpinning knowledge and practical skills application of those working or intending to work within an industrial mechanical maintenance environment. This assessment uses a range of paper based and practical activities which cover a number of key industrial maintenance areas.

Assessment topics

Each candidate is assessed in the following areas:

1. Fundamental underpinning knowledge. 68 question multiple choice paper:
    - Levers
    - Pulleys
    - Gears
    - Force and pressure
    - Volume and area
2. Reading engineering drawings. Paper based exercise.
3. Modifying pneumatic hydraulic drawings. Paper based exercise to identify suitable sections to modify in line with a given physical modification scenario.
4. Energy Isolation. Practical assessment using multiple source supply.
5. Pneumatic system task. Practical assessment to configure system of valves and actuators to meet operational specification.
6. Bearing replacement. Practical assessment to identify and select replacement part and install.
7. Fault finding. Practical fault finding assessment based on given operator reported symptoms and machine specific drawings
8. Alignment task. Practical alignment of drive system.

Assessment feedback

A full break down of performance across all assessments is provided within two weeks of assessment.

Duration and venue

This course is run at CWA King's Lynn, over 1 day duration.

CS
Customer Specific

Engineering Workshop Equipment Fundamental Safety and Competence Assessment (Vertical Mill)

Programme overview

All mechanical motion is potentially hazardous, personnel working within machine shops or areas where they are exposed to machinery or equipment hazards must be aware of the potential for accidents. Employees using machines and power tools are faced with a potential risk of injury due to fast moving parts. These risks can be reduced by ensuring that employees are suitably trained and understand safe operating procedures for machines and power tools.

This short programme is designed for production maintenance and multi-skilled engineers, who are occasionally required to use machine shop equipment.

Outline content

Outlined below is the content for a one day, two module programme covering workshop hazards and safety precautions to be applied when working with a range of machine shop equipment whilst also providing a measure of individual machining and machine shop competence. Other content and durations can be arranged.

Module 1

- Workshop hazards
- Machining fundamentals
- Material selection and preparation - verbal questioning
- Introduction to vertical mill, machine controls and safe working practices

Module 2

- Introduction to practical assessment task
- Practical assessment - machining exercise on a vertical mill, to meet stated dimensional accuracy
- Written assessment covering full range of client applicable workshop equipment
- Feedback, review and evaluation

Required documentation

All course notes and supporting documentation are supplied for this programme.

Course assessment

A test on the theory content of the programme, is by questions requiring short written response answers. Candidates will also be required to produce a test piece that must be within stated tolerances.

Duration and venue

These courses are run at CWA King's Lynn. Duration is dependent upon content, but typically range from 1 - 5 days.

CS
Customer Specific

Engineering Workshop Equipment Fundamental Safety and Competence Assessment (Centre Lathe)

Programme overview

All mechanical motion is potentially hazardous, personnel working within machine shops or areas where they are exposed to machinery or equipment hazards must be aware of the potential for accidents. Employees using machines and power tools are faced with a potential risk of injury due to fast moving parts. These risks can be reduced by ensuring that employees are suitably trained and understand safe operating procedures for machines and power tools.

This short programme is designed for production maintenance and multi-skilled engineers, who are occasionally required to use machine shop equipment.

Outline content

This two module programme covers workshop hazards and safety precautions to be applied when working with a range of machine shop equipment whilst also providing a measure of individual machining and machine shop competence. Other content and durations can be arranged.

Module 1

- Workshop hazards
- Machining fundamentals
- Material selection and preparation - verbal questioning
- Introduction to centre lathe, machine controls and safe working practices

Module 2

- Introduction to practical assessment task
- Practical assessment - turning exercise on a centre lathe, to meet stated dimensional accuracy
- Written assessment covering full range of client applicable workshop equipment
- Feedback, review and evaluation

Required documentation

All course notes and supporting documentation are supplied for this programme.

Course assessment

A test on the theory content of the programme, is by questions requiring short written response answers. Candidates will also be required to produce a test piece that must be within stated tolerances.

Duration and venue

These courses are run at CWA King's Lynn. Duration is dependent upon content, but typically range from 1 - 5 days.

CS
Customer Specific

Tungsten Inert Gas Shielded Welding 4 Module Introductory Programme

Programme overview

This four module practically biased training programme is aimed at production maintenance engineers who maintain production plant and equipment. It is intended to provide production maintenance engineers with an introduction to the fundamentals of using TIG welding related to the maintenance of process plant and associated equipment. This programme is ideally suited to those new to or who have had limited prior experience in practical welding.

Outline content

The modules of this programme are progressive and can be selected to form a programme suitable for specific client need.

Module 1

- Safe use of TIG welding equipment
- Risk assessment
- Functions and use of TIG welding equipment
- Practical welding demonstrations - selected welding processes
- Practical welding
  - Beads on plate
  - Corner fillet welds

Module 2

- Practical welding
  - Fillet welds in flat, horizontal / vertical positions (single beads)
  - Fillet welds in horizontal / vertical positions (multi run technique)
  - Lap welds in flat, horizontal / vertical positions

Module 3

- Practical welding
  - Butt welds in flat position (square edge 3mm L.C.S)
  - Butt welds single 'V' in flat position with full penetration

Module 4

- Repair welds on worn shafts
- Overlapping beads on solid steel shafts
- Pipe welding

Required documentation

All course notes and supporting documentation are supplied for this programme.

Course assessment

A test on the theory content of the programme, is by questions requiring short written response answers. Practical work pieces will also be evaluated.

Duration and venue

This course is run at CWA King's Lynn. Duration is dependent upon content, but typically ranges from 1 - 4 days.

HEALTH & SAFETY AT WORK

Employers in industry will be at different stages in their health and safety plan, therefore, we at CWA Training recognise the need to provide suitable training solutions on which to help build and maintain good health and safety systems. The implementation of health and safety metrics and instilling a conscientious safe working ethic is key for an effective health and safety culture in any workforce.

It is not only the employer who has responsibility for health and safety in the workplace, but everybody working for the employer has a part to play in managing health and safety. All workers are required to meet the expectations of the employer and their legal obligations, and all can benefit from the training offered by CWA Training.
Our learners typically include,

- General operatives
- Supervisors/Team Leaders
- Managers
- Directors
- Engineers
- Health & Safety advisers

CWA Training offers certified courses from two leading health and safety authorities in industry, internationally renowned for their high standards throughout the world, namely,

IOSH:
'Working Safely': an awareness course suitable for all staff
'Managing Safely': suitable for employees who have the task to help deliver the business strategy and health & safety polices

NEBOSH:
National General Certificate in Occupational Health and Safety (Distance learning) : to aid employees to become fully qualified and competent health & safety practitioners or safety officers.

IOSH Working Safely

Programme overview:

This course is designed for people of any level who need a grounding in the essentials of health and safety, and to provide a basic understanding of related issues in the workplace.

The course is delivered in a format that is fun and interesting to ensure learners become fully engaged so that they attain a good understanding of the topics covered. It focuses on why health and safety is important at work and how they, as individuals, they can make a difference.

Outline content:

This programme covers the following topic areas:

- Defining Hazard and Risk
- Identifying Common Hazards
- Improving Safety Performance

Required documentation:

All course notes and supporting documentation are supplied for this programme.

Course assessment:

The assessment comprises of a multiple-choice question paper, and a paper-based hazard identification practical assessment. Upon successful completion learners are awarded an IOSH 'Managing Safely' certificate.

Course duration:

This course is run at the CWA King's Lynn over a 1-day duration.

IOSH Managing Safely

Programme overview:

This course is to provide managers, supervisors, and staff in any sector of industry and organisation with the required skills and knowledge necessary to manage all aspects of health and safety in the workplace.

This course covers the important underpinning knowledge of safety management; to enhance business reputation, increase profits, reduce wastage and insurance premiums. This course also empowers staff to ensure a happy and healthy workforce is maintained whilst ensuring moral and legal duties are satisfied, primarily to the Health and Safety at Work Act 1974.

The course modules are enhanced by clear examples and recognisable scenarios as well as referring to memorable and thought-provoking facts and case studies.

Outline content:

This course will cover all aspects of the main health and safety issues which are an integral part of day-to-day management and business.

- Knowledge and tools required to manage safely
- Assessing risks
- Controlling of risks
- Understanding responsibilities (legal duties)
- Understanding hazards
- Investigating incidents
- Measuring performance

Required documentation:

All course notes and supporting documentation are supplied for this programme

Course assessment:

The assessment comprises of a written, and multiple-choice, closed book assessment at the end of the final day, plus a work-based project undertaken outside of the taught sessions. Upon successful completion learners are awarded a world recognised IOSH 'Managing Safely' certificate.

Course duration:

This course is run at the CWA King's Lynn over a consecutive 3-day duration.

CWA Training
Delivering performance through people

nebosh

NEBOSH National General Certificate in Occupational Health and Safety (Distance learning)

Programme overview:

This course is based on national high standards for health and safety management in accordance with laws and legislation. You'll learn the best practices for implementing safety systems of which will help you become a fully qualified and competent health & safety practitioner or safety officer.

This eLearning NEBOSH certificate level qualification gives learners the confidence to implement the core knowledge and skills they will learn during study.

When employees are qualified at certificate Level, your company's reputation is improved by demonstrating that key social responsibilities and ethical practices are met by employing trained professionals. In turn this helps to avoid prosecution and other legal issues.

This NEBOSH qualification is the most widely held health and safety qualification in the UK. Holders of the Certificate are entitled to Associate Membership AIOSH of the Institution of Occupational Safety and Health IOSH. The qualification also meets the academic requirements for Technician Membership Tech IOSH of IOSH and Associate Membership AIIRSM of International Institute of Risk and Safety Management IIRSM.

Outline content:

The course is split into 2 units of study, each of which is assessed separately:

Unit NG1 - Management of Health and Safety covering:

- Why we should manage workplace health and safety
- How health and safety management systems work and what they look like
- Managing risk - understanding people and processes
- Health and safety monitoring and measuring.

Unit NG2 - Risk Assessments covering:

- Physical and psychological health
- Musculoskeletal health
- Chemical and biological agents
- General workplace issues
- Work equipment
- Fire
- Electricity

Required documentation:

Learners will use a specially designed easy to use online platform, which allows you to study online, attempt practice questions, and interact with your tutor and fellow learners.

Course assessment:

The course is split into 2 units, and exam dates are set by NEBOSH throughout the year.
NG1, an open book written examination to assess what you know, this is scenario based and will include a closing interview where you will be asked questions about your submission.
NG2, a practical risk assessment to assess what you can do, submitting a completed risk assessment and develop an action plan for your workplace.

Course duration:

The course follows a distance learning programme. The course duration is between 6 and 12 months; the expectation would be to complete the course within 6 months.
The course can be commenced at any time.

Anglia Training Centre

ATC@CWA.ac.uk

01553 815600

Anglia Training Centre are plumbing and heating specialists with a combined 30 years of industry experience. We offer ERS approved training at our fully equipped centre at the College of West Anglia's King's Lynn campus. We have a wide range of courses on offer with lots more to come. Whether you are looking at getting into the plumbing and heating industry, wanting to upskill or are an experienced engineer wanting to renew your qualifications, we can provide the training for you to develop the essential knowledge and skills you need in a friendly and welcoming environment.

Check out our web page using the QR code below.

Courses we offer.

- ACS Domestic Gas courses
- ACS Domestic LPG Courses
- Un-vented hot water systems
- Mapped Learning Plans
- Water Regulations
- Legionella
- Air source heat pump system design, install and maintenance
- Ground source heat pump system design, install and maintenance

ERS APPROVED CENTRE

GAS safe REGISTER

Notes

Did you know...?

CWA Training can provide bespoke training specifically to meet your requirements. If you cannot find anything suitable in this training guide, please get in contact, we will be only too pleased to provide a solution.

CWA Training
The College of West Anglia
Tennyson Avenue
KING'S LYNN
Norfolk PE30 2QW

General course administration and bookings:
Tel: 01553 815415

NEBSOH and IOSH course bookings:
Tel: 01553 815351

Email: CWACommercial@cwa.ac.uk
Web: cwa.ac.uk/employers

CWA Training
Delivering performance through people

College of West Anglia