

OVER **20** YEARS  
DELIVERING  
**TRAINING**  
EXCELLENCE

# 2022 TRAINING BROCHURE

CONTROL SYSTEMS | INDUSTRY 4.0 | ELECTRICAL | HEALTH & SAFETY | QMS



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## Welcome to Control 2K

### Providing Business Services in Training, Design and Systems for over 20 Years.

Located in South Wales with a world wide reputation for specialised Control Systems training and support, Control 2K is a total solutions provider for the manufacturing/ process industries.

We provide first class industrial, mechanical, and electrical training; specialising in Control Systems and Industry 4.0 capability. From bespoke training packages tailored to your company requirements, to your individual career needs, delivered at our fully equipped training centre.

At Control 2K limited, we have put in place additional services to support our clients and trainees, protecting them from harm on the premises and creating new ways of accessing training in these ever changing times. We are adhering to government guidelines at all times.

We look forward to welcoming you to Waterton Technology Centre in the near future.



# SUPPORT & FUNDING

## Thinking About a New Career?

Are you an individual looking to re-train or pursue a new career?

Not sure what courses you need to take to achieve your engineering ambitions?

Book a Pathways session with our Training Centre advisors to discuss your plans. Let us help you find a suitable path. Whether you are ex-Armed Forces, facing redundancy or simply looking for a change, we can provide advice on achieving your goals and become the professional you want to be.

Call our training centre on 01656 646404 to arrange your pathways session today.

**At Control 2K we support various funding options to support your learning, take a look below to see some of your options.**



### REACT

The Redundancy Action Scheme (ReAct) is funded training provided by the Welsh Government for people living in Wales who are facing redundancy or due to become unemployed. You can receive a training award of up to £1,500 to help you get the skills and qualifications you need to boost your CV and land a job.



### ELCAS Provider

We are proud to be an Approved Learning Provider for our popular City & Guilds Electrical courses with the Ministry of Defence (MOD) Enhanced Learning Credits Scheme (ELC). This scheme helps to promote life-long learning for members of the Armed Forces.



### Armed Forces Covenant

We commit to honour the Armed Forces Covenant and support the Armed Forces Community. We recognise the value Serving Personnel, both Regular and Reservists, Veterans and military families contribute to our business and country.

## POPULAR COURSES

	DAYS	PRICE*
Electrical Principles - Basic Skills - Industrial or Domestic Bias	5	£745
2382-18 - City & Guilds 18th Edition IET Wiring Regulation	3	£498
2391-52 - City & Guilds Level 3 Award in Initial and Periodic Inspection and Testing of Electrical Installations	5	£870
First Line Diagnostics	5	£795
2377-77 - City & Guilds Level 3 Award in Portable Appliance Testing (PAT Non Electrical Personnel)	2	£495
Mechanical to Electrical Conversion	10	£1815

Contact us via **01656 646404** or **training@control2k.co.uk**, or visit **www.control2k.co.uk**



## CONTROL SYSTEMS COURSES

	REF	DAYS	PRICE*
<b>An Introduction to Industry 4.0</b> An engineers introduction to the principles and associated technologies in Industry 4.0. The course includes discussion of data capture, visualisation, connectivity and process analysis of automation.	CTRL5070	2	£500
<b>Allen Bradley PLC RS Logix 500 or 5000 - Basic</b> Introduces delegates to features and tools of Allen Bradley PLC systems and RS-Logic 500/5000 software. Designed to give you an understanding of the core functions and configuration required to be able to program and troubleshoot a PLC.	CTRL1010 CTRL1020	2 2	£400 £400
<b>Allen Bradley PLC RS Logix 500 or 5000 - Intermediate</b> Following from the basic course, delegates will gain a deeper understanding of the Allen Bradley RS Logix Studio 500/5000 system. Including complex program structures, programming, fault finding features touching on PanelView HMI communications.	CTRL1030 CTRL1040	3 3	£600 £600
<b>CNC Programming - Introduction</b> Learn the basic principles of CNC and CNC Programming. Covering CNC geometry, offsets, programming codes focussing on practical experience.	CTRL2010	2	£600
<b>Omron HMI</b> This course has been designed to familiarise maintenance engineers, technicians and electricians with the operation, configuration and programming of an Omron HMI Series Programmable controller and the use of Omron CX-Designer software.	CTRL4010	2	£400
<b>Omron PLC - Basic</b> This course offers an introduction to PLCs, providing delegates with knowledge of PLC hardware and its functionality through to a basic familiarity with the CX-Programmer software suite.	CTRL4020	2	£400
<b>Omron PLC - Intermediate</b> Here delegates will gain an understanding of the more in-depth features of the Omron PLC including additional ladder logic functions and diagnostic features of the CX Programmer suite.	CTRL4030	3	£600
<b>Siemens TIA Portal PLC V16</b> Focused on TIA Portal (V16) Software, this course gives you basic knowledge to configure, program and fault find on the new Siemens S7-1500 range. Basic HMI functionality is also covered.	CTRL5020	4	£800
<b>Siemens HMI &amp; WinCC Flex</b> Designed for engineers, this course covers everything you would need to know about setting up a Siemens HMI using the WinCC Flex software package. Content includes configuring a project and communication, designing screens using standard controls, recipes, alarms and messages.	CTRL5030	2	£400
<b>Siemens S7 Profibus / Profinet</b> For delegates with previous knowledge of Siemens S7 or TIA Portal. With focus on practical elements that will incorporate modern Ethernet networks using simple methods; how to analyse and solve complex PROFINET/PROFIBUS breakdowns using the necessary tools.	CTRL5050	1	£400
<b>Siemens S7 to TIA Transition</b> Designed to aid delegates to transition from S7 to TIA Portal. It covers all features found in S7 and how they translate to TIA Portal.	CTRL5060	5	£995
<b>Mitsubishi PLC Basic</b> An introduction to Mitsubishi Q.L and FX PLC products. It explains the basic hardware structure and introduces PLC programming using the GX Works2 PLC.	CTRL3010	2	£600
<b>Mitsubishi PLC Intermediate</b> Based around the GX Works2 software in simple mode with labels, it runs through the advanced features.	CTRL3020	3	£800

**\*All prices are subject to VAT at current rate**

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## CITY & GUILDS ACCREDITED ELECTRICAL COURSES

All City & Guilds courses include relevant textbooks and are approved through the ELCAS scheme for members of the Armed Forces.

	REF	DAYS	PRICE*
<b>2377-77 - City &amp; Guilds Level 3 Award in Portable Appliance Testing (PAT)</b> Enables delegates to acquire skills and knowledge to be able to instigate and implement a testing programme for portable electrical appliances. <b>Examination held on separate day.</b>	ELEC1010	1	£340
<b>2377-77 - City &amp; Guilds Level 3 Award in Portable Appliance Testing (PAT Non Electrical Personnel)</b> Designed for non-electrical delegates, attendees will develop knowledge and understanding to implement a testing programme for portable electrical appliances. <b>Examination held on separate day.</b>	ELEC1020	2	£495
<b>2382-18 - City &amp; Guilds 18th Edition IET Wiring Regulation</b> This course will provide delegates with knowledge of the latest industry standard regulations. It is a requirement that all electrical installations comply with BS 7671:2018, 18th Edition.	ELEC1030	3	£498
<b>2391-50 - City &amp; Guilds Level 3 Award in Initial Verification of Electrical Installation</b> Designed for electricians yet to perform initial inspection on electrical installations or those with experience looking to update their previous training. Also suitable for those entering the industry from other disciplines (e.g. other engineering fields, or those in allied trades).	ELEC1040	4	£700
<b>2391-51 - City &amp; Guilds Level 3 Award in Periodic Inspection and Testing of Electrical Equipment</b> Created for domestic electrical installers, this course gives you the necessary skills to inspect and test fundamental installations and conduct an initial verification.	ELEC1050	4	£700
<b>2391-52 - City &amp; Guilds Level 3 Award in Initial and Periodic Inspection and Testing of Electrical Installation</b> This course covers both Periodic Inspection and Initial Verification. Aimed at electrical personnel who carry out or supervise the testing and inspection of installations. Price includes course book exam prep electrical installation	ELEC1060	5	£870
<b>2393-10 - City &amp; Guilds Level 3 Award in Part P Building Regulations</b> The course provides instruction on relevant parts of building regulations and approved documents. An ideal course for those wanting to become part of the competent person scheme.	ELEC1070	1	£300

## ELECTRICAL & ENGINEERING COURSES

	REF	DAYS	PRICE*
<b>Electrical Principles- Basic Skills - Domestic or Industrial</b> An introduction to electrical competency for a mechanically biased tradesperson moving into a multi-disciplined role. The <i>Domestic</i> course is an prerequisite for the IET Regulations 18th edition. The <i>Industrial</i> course is aimed towards maintenance technicians and engineers. <b>Price includes IET booklet, guide to the IET wiring regulations</b>	ELEC2010 ELEC2020	5 5	£745 £745
<b>Electrical - Combined Electricity at Work Regulations (1989) - Duty Holder</b> Helping employers and employees gain the knowledge and understanding needed to satisfy the requirements of EAW regulations and the subsequent responsibilities of the duty holder or appointed person.	ELEC2030	1	£300
<b>Electrical - Safe Isolation - Single &amp; Three-Phase Installation</b> This course covers the Identification of single and three-phase supplies, locking mechanisms, test Instruments and lock-out tag-out procedures.	ELEC2040	1	£300
<b>Mechanical to Electrical Conversion</b> Part 1 M-E: Starts from the basic principles, including how electricity works, Ohms Law, circuit breakers, fuses and RCDs including practical wiring and testing. Part 2 M-E: Builds on previous theory and practical tasks and shifts towards motor control theory with practical circuit building and fault finding technical exercises. <b>Price includes IET booklet, guide to the IET wiring regulations. Course includes 2377-77 PAT and 2393-10 Part P Qualifications</b>	ELEC3010	10	£1815

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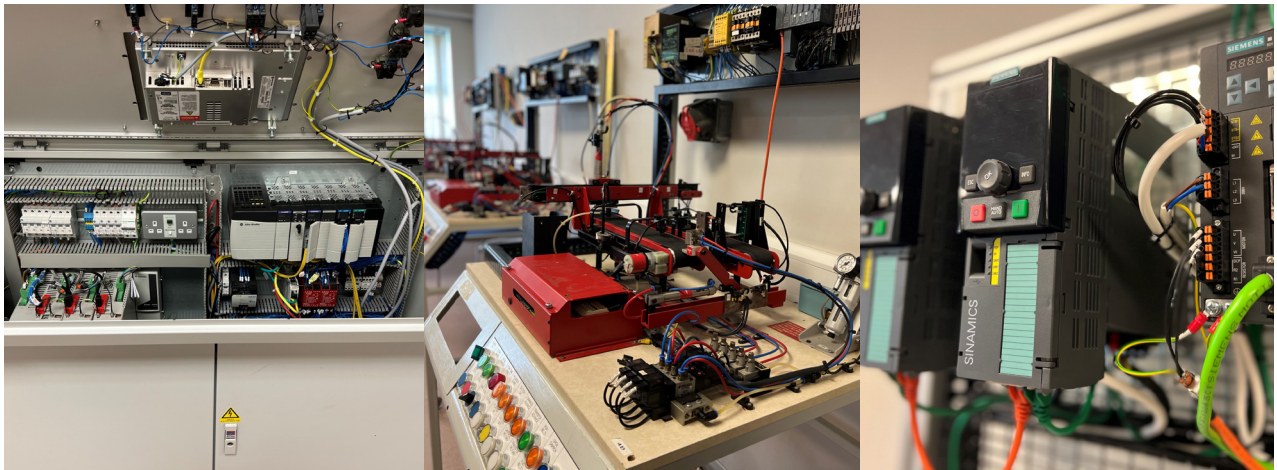
## PRACTICAL ELECTRICAL TRAINING

"THOROUGHLY ENJOYED THE COURSE, A GREAT LEARNING FACILITY AND WILL DEFINITELY RECOMMEND THE COURSE."



## PLC TRAINING WITH FIRST CLASS TRAINING RIGS

"GOOD COURSE, WELL RUN."



## PNEUMATICS AND HYDRAULICS

"TUTOR WAS GREAT AND VERY INFORMATIVE, TASKS PROVIDED WERE VERY REALISTIC AND SIMILAR TO WHAT WOULD'VE BEEN SEEN IN AN INDUSTRIAL ENVIRONMENT."



# INTRODUCTION TO INDUSTRY 4.0

Industry 4.0 is the collective term for the next generation of industrial development, focusing on interconnectivity, real-time data and analytics and automated processes.

Industry 4.0 brings together traditional processes and modern manufacturing practice and combines them into a set of digital tools and services designed to make manufacturing more efficient and cost effective, reducing our impact on the environment and making better use of the World's resources.

Whether you are an engineer looking to solve a manufacturing challenge, an Operations Manager looking for improvements in your KPIs; or an MD looking to improve your bottom line – Industry 4.0 is all about the tools and knowledge you need for the engineering of the future.

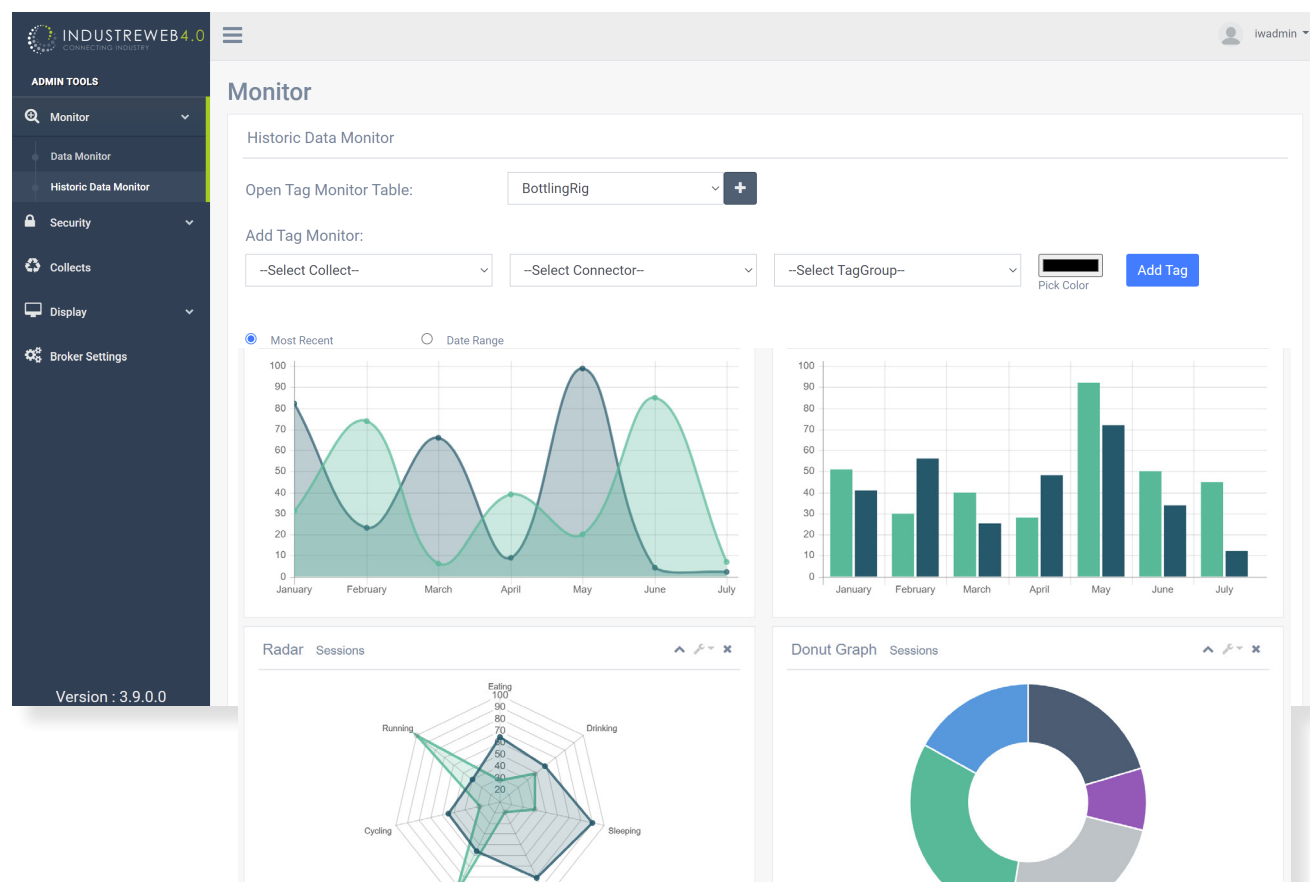
## Why Industry 4.0?

Developing a holistic and consolidated understanding of the application and benefits of simulation and digital twinning in manufacturing environments.

Understanding and articulating the business case for introducing simulation and digital twinning, as well as determining the potential application of the technology in a specific industrial setting.

## Course Content

- What is industry 4.0 in a manufacturing context?
- Industry 4.0 instrumentation - Technology Elements
- Industrial Cyber Security
- Applications for Industry 4.0
- Data aggregation and analytics
- Process simulation and optimisation using digital twins





## INDUSTRIAL ENGINEERING COURSES

### Pneumatics / Hydraulics

A hands on approach designed for maintenance engineers, technicians or operators to improve efficiency, maintenance and fault finding. This course delivers a basic understanding of pneumatic, electro-pneumatic and hydraulic systems, equipment, symbols and drawings.

INDR1010

3

PRICE\*

£525

### First Line Diagnostics

A practical course designed for maintenance engineers, multi-skilled engineers and technicians who need to have methodical approach when responding to a plant breakdown. This will improve the diagnostic approach and lead to faster identification and resolution of faults.

INDR2010

5

£795

### Second Line Diagnostics

This course comprises of practical exercises aimed at engineers, technicians and breakdown response teams. Delegates will be able to implement knowledge gained into their own work environment, making fault finding more efficient, reducing financial losses incurred by unexpected down time.

INDR2020

3

£525

### Welder Training Scheme (Level 1 Novice)

This level is suitable for students who have no prior welding experience or have had minimal work experience. This course will provide a good foundation of the theory behind the MMA welding process, fabrication and welding safely.

INDR3010

5

£1500

### Welder Training Scheme (Level 2 Basic Experience)

This level is suitable for an experienced welder with the capability of achieving fillet and butt welds in plate in TIG or MIG.

INDR3020

3

£995

### Welder Training Scheme (Level 3 Accomplished Welder)

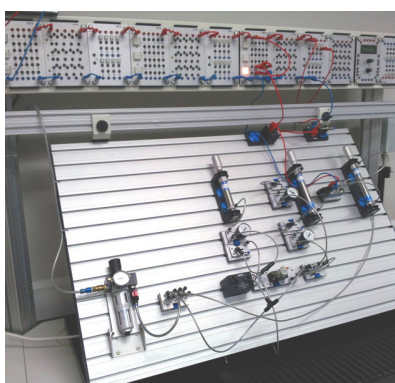
This level is for the experienced welder with the capability of achieving fillet and butt welds in plate in TIG, MIG or ASME 9. This course is tailored to the needs of delegates and the price is per day of tuition.

INDR3030

2

£600

**\*All prices are subject to VAT at current rate**



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## IOSH

### IOSH - Managing Safely

The number one health and safety course in any sector. This course will ensure you can assess and control risks and hazards, understand your responsibilities around health and safety, enable you to investigate incidents and gain knowledge, skills and confidence to manage health and safety within your team.

REF	DAYS	PRICE*
HSAF1010	3	£495

### IOSH - Working Safely

Covers the essentials of health and safety in the workplace and is aimed at all employees within all organisations.

HSAF2330	1	£145
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## CIEH ACCREDITED COURSES

### CIEH Foundation Certificate in Manual Handling (Level 2)

Legislation requires employers to take appropriate steps to reduce risk of injury to employees. This qualification combines the theory and practical elements of manual handling, teaching techniques to lift, carry, push and pull objects safely.

HSAF1090	0.5	£150
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### CIEH Intermediate Certificate in First Aid at Work (Level 3)

Provides delegates with sufficient skills and knowledge to carry out the role of a First Aider in the workplace in accordance with current legislative requirements. Suitable for anyone wishing to be the designated First Aider in the workplace.

HSAF1040	3	£680
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## IN-HOUSE COURSES

### Asbestos Awareness

This course is aimed at the construction industry and maintenance contractors or other ancillary workers who could come into contact with asbestos.

HSAF2010	0.5	£150
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### Abrasive Wheel Safety (Portable Grinders)

Provides delegates with information that will enable them to change, replace and maintain cutting discs on portable grinding machines. They can then use them safely and in accordance with requirements of the provision and use of Work Equipment Regulations 1998 (PUWER).

HSAF2050	0.5	£150
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### Safe Use of Abrasive Wheels

This course will provide an introduction to working safely with abrasive wheels so you can understand the risks and know which control measures are needed to prevent injury. Also allowing for familiarisation with the associated regulations.

HSAF2190	1	£295
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### Safe Use of Engineering Workshop Equipment

This programme has been developed to provide delegates with an understanding of major risks in workshops and how to control them in order to minimise injuries.

HSAF2200	1	£295
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### Safe Use of Power Hand Tools

Introduces delegates to skills for using power hand tools, in accordance with health and safety legislation and in addition to best work practices.

HSAF2220	1	£295
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### Safe Use of Power Presses

This programme has been developed to educate personnel who have responsibility, directly or indirectly for the provision and use of power presses.

HSAF2230	1	£295
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### Working at Heights

This programme introduces delegates to the requirements of the current "Working at Heights Regulations 2005", so that individuals can comply with their duties, whether planning, controlling or conducting work tasks at height.

HSAF2310	1	£295
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### Introduction to COSHH

Developed to provide those working near hazardous substances with knowledge of risks and what their responsibilities are under current legislation. You will find out about associated health risks and cover the benefits of following COSHH guidelines.

HSAF2140	1	£295
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**\*All prices are subject to VAT at current rate**

## ISO 9001:2015

### Introduction to ISO 9001:2015

An overview of what the ISO 9001:2015 standard requires. This course will benefit those who are managing, or would like to manage an ISO based quality management system.

REF	DAYS	PRICE*
BMBA1010	1	£345

### Certification to ISO 9001:2015

Tailored to suit your business requirements, the ISO 9001:2015 standard is utilised in developing training of policies and procedures thus facilitating achievement of the role of Internal Auditor, as well as an implementation of ISO management systems. Assessment by a UKAS accredited certification body is included.

BMBA1030	TBC	CALL
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## LEAN TOOLS AND TECHNIQUES

### 5S Workplace Organisation

An introduction to the 5S methodology, incorporating the use of visual displays and visual controls to minimise clutter and introduce orderly process to the work place. SORT, SET, SHINE, STANDARDISE and SUSTAIN.

BMBA2050	1	£295
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### Six Sigma Green Belt Training

This highly interactive course is designed for people who will get involved in Six Sigma improvement projects in their workplace.

BMBA2280	5	CALL
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### Changeover Reduction (SMED)

To ensure delegates understand the systematic approach to the measurement and reduction of lost production time.

BMBA2250	1	£295
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### Introduction to Lean Awareness

An overview of 'Lean Thinking' to enable processes to be delivered better, faster and cheaper.

BMBA2210	1	£295
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### Continuous Improvement

Introduces improvement techniques that can be applied in any environment. Achieve greater efficiencies through process mapping to deliver improvements.

BMBA2230	1	£295
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### Total Productive Manufacturing

Learn how to recognise methods and training which can show you how to increase the output and efficiency of equipment.

BMBA2240	1	£295
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## LEADERSHIP AND MANAGEMENT COURSES

### Project Management

The course aims to provide managers with an understanding of the techniques available and how they may be used in the management of projects.

BMBA2150	1	£295
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### Strategy and Direction Setting

A practical training in business strategy, developing mission statements and SMART objectives. Tips and tools for engaging your board members.

BMBA2160	1	£295
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### Effective Leadership

Develop skills that will ensure effective leadership of a team and its managers, with the objective of maximising performance. Explore leadership techniques and learning styles and create more effective teams.

BMBA2270	1	£295
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## BOOKING INFORMATION

Courses can be booked online or over the telephone, payment can be made by card or by invoice and must be made prior to the course start date.

Each delegate will receive joining instructions prior to the start date of their chosen course, together with any health and safety policies. Any cancellations must be received 2 weeks prior to the course start date.

All prices are subject to VAT at current rate.

For our full cancellation policy and further information, please consult our website where the full terms and conditions are published:

<https://www.control2k.co.uk/termsandconditions>

Training Accounts available subject to conditions, please contact [training@control2k.co.uk](mailto:training@control2k.co.uk) for further details.

## Training Accounts

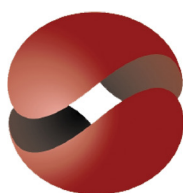
We specialise in creating bespoke training for your new recruits, apprentices and long-established teams. Creating a company training account with us gives you the ability to customise our courses so that they relate to your industry requirements. Set up your own unique training schedule and pay monthly on account.

Start the ball rolling and get ahead of your competitors today. Call our Training Centre on 01656 646404 to discuss your requirements.

**Waterton Technology Centre**  
**Waterton Industrial Estate**  
**Bridgend**  
**CF31 3WT**







**CONTROL 2K**  
total solutions provider

Providing you with solutions for  
Training, Design & Systems



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