



Course

Level 3 Improvement Technician Apprenticeship standard



Course duration:
14-18 months

Summary

Knowledge

- Principles and methods
- Team formation and leadership
- Project management
- Change management
- Legislation and compliance

Skills

- Principles and methods
- Project management
- Change management
- Legislation and compliance
- Communication
- Understanding your customers

Behaviours

- Drive for results
- Team-working
- Professionalism
- Continuous development
- Safe working

Learn how to deliver and coach improvement activity resulting in increased performance with our Level 3 Improvement Technician Apprenticeship.

Improvement technicians are responsible for the delivery and coaching of improvement activity within an area of responsibility, often associated with Lean and Six Sigma methodologies. They can be found across all industry sectors including automotive, banking, engineering, food products, IT, property and telecoms. You can look forward to a varied and in-depth course, which should last around 14-18 months depending on your previous experience.

Typical improvement technician activities include:

- Engaging team members in the identification of improvement opportunities and relevant countermeasures and controls
- Initiating and facilitating improvement activities through to confirmed resolution
- Providing local expertise in business improvement methods and basic tools to team

Who is it for?

If you enjoy learning new processes, problem solving, data analysis managing projects and working with a team, then you have an ideal foundation for becoming an improvement technician. Technicians work as a part of an operational team to resolve problems and prevent them happening again.

What will you learn?

You will study project management techniques and a wide range of principles and process methods such as Six Sigma, Lean principles, process mapping and data acquisition and analysis. As working with people is also key to this role, you will learn about improvement team roles and managing change. You can read more about these in the table overleaf. Alongside this, and following an initial assessment, we will work with you, your manager and mentor to create an individual training plan. This will include development of skills such as reading, writing, speaking, listening and communication in English as well as maths, in preparation for Level 2 Functional Skills. Within this plan there will also be activities and learning to improve your personal soft skills.

Knowledge

Area	Learning aims and development
Principles and methods	<ul style="list-style-type: none"> • Different sources for knowledge development • Six Sigma principles per ISO13053 (International Organisation for Standardisation), interim containment actions, Lean principles • Problem definition: exploratory data analysis, data collection planning, problem and goal statements • Process mapping & analysis: Supplier Input Process Output Customer (SIPOC), process mapping, value and waste analysis, performance metrics - discrete data • Data acquisition for analysis: data stratification, sampling theory, data types, variation types and sources, data collection tools, operational definition and principles of measurement error • Basic statistics and measures: control charts - discrete data • Process capability and performance: capability analysis - continuous data • Root cause analysis: histograms • Experimentation: active analysis versus one factor at a time, Plan Do Check Act • Identification and prioritisation: brainstorming, selection criteria • Sustainability and control: process
Team formation and leadership	<ul style="list-style-type: none"> • Improvement team roles and responsibilities in a change environment
Project management	<ul style="list-style-type: none"> • Project charter, Gantt chart, reporting documentation, Red Amber Green (RAG) status, communication (verbal and non-verbal channels) and implementation plans • Project selection and scope: selection matrix, scoping tree
Change management	<ul style="list-style-type: none"> • Roles of the manager and leader within change • Influencing, reinforcement and coaching principles
Legislation and compliance	<ul style="list-style-type: none"> • Legislative and customer compliance requirements

Skills

Area	Learning aims and development
Principles and methods	<ul style="list-style-type: none"> • Use a structured method and appropriate improvement tools engaging with subject matter experts to deliver business benefits • Problem definition: develop a problem/opportunity statement supported by validated data • Process mapping and analysis: apply process mapping tools to visualise processes, analyse process performance establishing key insights for performance improvement • Lean tools: apply techniques such as identification and removal of 8 wastes, 5S (Sort, Shine, Set, Standardise, Sustain), standard work, kaizen, visual displays and controls, error proofing, preventative maintenance • Data acquisition for analysis: develop data collection plan and validated measurement processes to understand performance • Basic statistics & measures: establish patterns and trends in data over time using tally, pie, run/trend and pareto charts • Data analysis-statistical methods: identify common and special cause variation • Process capability & performance: analyse product/process performance using good quality data • Root cause analysis: use cause and effect diagrams, technique of 5 whys and graphical analysis to understand and verify root causes • Identification & prioritisation: identify and prioritise improvement solutions • Benchmarking: recognise the value of sharing best practice • Sustainability and control: create control and reaction plans with detection measures, identify opportunities to embed changes to leverage benefit to the business
Project management	<ul style="list-style-type: none"> • Plan, manage and implement improvement activities • Identify and support management of risks • Develop the business case for improvement activity and implementation • Project selection and scoping: identify and scope improvement projects and establish clear measurable objectives
Change management	<ul style="list-style-type: none"> • Engage through communications • Reinforce – positively and negatively • Effectively coach peers
Legislation and compliance	<ul style="list-style-type: none"> • Work in accordance with organisational controls and statutory regulations

Skills (cont'd)

Area	Learning aims and development
Communication	<ul style="list-style-type: none"> Share improvement progress through appropriate reporting
Understanding your customers	<ul style="list-style-type: none"> Voice of the customer: apply techniques to identify customers, their requirements and translate these to metrics

Behaviours

Area	Learning aims and development
Drive for results	<ul style="list-style-type: none"> Clear commitment for identifying opportunities and delivering improvements, you pay attention to detail
Team-working	<ul style="list-style-type: none"> You help when asked, work effectively in a diverse team, consider impact of your actions on others, motivate your peers
Professionalism	<ul style="list-style-type: none"> You act in a moral, legal and socially appropriate manner, align your behaviours to the organisation's values, trusted to working on your own when appropriate
Continuous development	<ul style="list-style-type: none"> You act upon feedback, reflect on performance and have a desire for learning
Safe working	<ul style="list-style-type: none"> You ensure safety of yourself and others, challenge safety

Additional skills

As well as the core curriculum, you will develop a number of additional skills throughout the course of your apprenticeship:

NCFE functional skills

You will work on developing positivity and confidence in the use of maths and English skills in real world and employment-based situations.

Maths

Through the Level 2 Functional Skills qualifications you will demonstrate a sound grasp of mathematical skills at the appropriate level and the ability to apply mathematical thinking effectively to solve problems in the workplace and in other real-life situations.

English

Through the Level 2 Functional Skills qualifications you will demonstrate the ability at an appropriate level to read, write, speak, listen and communicate in English, and to apply these skills effectively to a range of purposes in the workplace and in other real-life situations

British values

As part of your apprenticeship, we will discuss five key values and their impact and importance in the workplace. These will be democracy, the rule of law, individual liberty, mutual respect and tolerance of those of different faiths and beliefs.

Soft skills development

Personal Learning and Thinking Skills (PLTS) are generic skills that are essential to life, learning and work. Developing these will make a significant impact on your ability to contribute confidently both within and outside of their working environment. PLTS include independent enquiry, creative thinking, reflection, team working, self-management and effective participation.

PREVENT

PREVENT is part of the government's CONTEST strategy of which education is a fundamental part. The aim of the strategy is "to reduce the risk to the UK and its interests overseas from terrorism so that people can go about their lives freely and with confidence." CONTEST is split into four work-streams that are known within the counter-terrorism community as the 'four Ps': Prevent, Pursue, Protect, and Prepare.



Plan

We take into consideration your skills at each stage of the process, planning the learning and follow-up activities.

Do

You undertake the learning and activities that have been planned.

Check

We check your learning using a combination of assignments, discussions and observations of workplace activities, ensuring that skills, knowledge and behaviours are embedded and being practised.

Act

If areas of further learning are identified, reinforcement training is planned in and provided.