Course Information

CITY OF WOLVERHAMPTON COLLEGE

Improvement Technician Apprenticeship Level 3

Study Mode: Full Time Programme Component | Course Level: 3

Is this course right for me?

Improvement technicians are responsible for 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 and functions including automotive, banking, engineering, food products, IT, property, retail, telecoms etc and typically work as a member of an operational team to resolve problems - preventing re-occurrence, engaging others in issues affecting them and to support the improvement of performance.

Typical 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, and providing local expertise in business improvement methods and basic tools to team.

Typical job titles include business improvement co-ordinator, continuous improvement executive, process technician, operational excellence/Lean engineer, Lean Six Sigma Yellow Belt and quality control analyst.

Entry Requirements

Entry criteria will be set by individual employers.

Apprentices without Level 2 (or equivalent) in maths and/or English must ensure that they achieve this level and take the test for Level 2 prior to taking the end-point assessment.

For those with an education, health and care plan or a legacy statement the minimum maths and English requirement is Entry Level 3.

A British Sign Language qualification is an alternative to English qualifications for those for whom this is their primary language.

What will I learn?

KNOWLEDGE, SKILLS AND BEHAVIOUR REQUIREMENTS

Apprentices will develop the core knowledge and skills required of an Improvement Technician

KNOWLEDGE

Apprentices will develop knowledge and understanding of:

- Compliance: Legislative and customer compliance requirements including health and safety
- Team formation & leadership: Improvement team roles and responsibilities in a change environment
- Self-development: Different sources for knowledge development
- Project management: Project charter, Gantt chart, reporting documentation, Red Amber Green (RAG) status, communication (verbal and non-verbal channels) and implementation plans
- Change management: Roles of the manager and leader within change. Influencing, reinforcement and coaching principles
- Principles & methods: Six Sigma principles per ISO13053 (International Organisation for Standardisation), interim containment actions, Lean principles
- Project selection & scope: Selection matrix, scoping tree
- 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 & measures: Control charts - discrete data
- Process capability & performance: Capability analysis - continuous data
- Root cause analysis: Histograms
- Experimentation: Active analysis versus one factor at a time, Plan Do Check Act

- Identification & prioritisation: Brainstorming, selection criteria
- Sustainability & control: Process

SKILLS

Apprentices will develop skills within the context of their own organisation:

- Compliance: Work in accordance with organisational controls and statutory regulations
- Communication: Share improvement progress through appropriate reporting
- Project management: Plan, manage and implement improvement activities. Identify and support management of risks. Develop the business case for improvement activity and implementation
- Change management: Engage through communications. Reinforce - positively and negatively. Effectively coach peers
- Principles and methods: Use a structured method and appropriate improvement tools engaging with subject matter experts to deliver business benefits
- Project selection and Scoping: Identify and scope improvement projects and establish clear measurable objectives
- Problem definition: Develop a problem/opportunity statement supported by validated data
- Voice of the customer: Apply techniques to identify customers, their requirements and translate these to metrics
- Process mapping & 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 & control: Create control and reaction plans with detection measures, identify opportunities to embed changes to leverage benefit to the business.

BEHAVIOURS

Apprentices will demonstrate the following behaviours:

- Drive for results: Clear commitment for identifying opportunities and delivering improvements, pays attention to detail

- Team-working: Helps when asked, works effectively in a diverse team, considers impact of own actions on others, motivates peers

- Professionalism: Acts in a moral, legal and socially appropriate manner, aligns behaviours to the organisation's values, trusted to work on their own when appropriate

- Continuous development: Acts upon feedback, reflects on performance and has a desire for learning

- Safe working: Ensures safety of self and others, challenges safety

How will I be assessed?

Throughout the programme you will receive expert training from experienced business improvement practitioners.

A qualified assessor will provide an induction and regular workplace assessments

What can I do next?

Completion of the programme will enable you to gain employment in a relevant role across a broad spectrum of industries

Delivery

Location: Work-based & College
Start Date: 02/09/2024
Day:
Time:
Course Fee:
Course Code: X0017
Study Mode: Full Time Programme Component

Apply online: **www.wolvcoll.ac.uk/apply**