

# Overview of Apprenticeship Standard Improvement Technician Level 3



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specialising in developing core organisational  
capabilities, supporting business strategy and  
increased operational performance.**

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Deere Apprenticeships is built on the principle of delivering excellence via online, blended learning or face to face training models.

As our team of Professional Work Coaches (PWC's) deliver brilliant training via private, personal, developmental learning conversations and interactive online workshops.

Whether you're an existing learner ready to make the next steps in your education journey or you are considering joining us for the first time, we are ready to support you and your organisation.

## Content

Overview of Standard	03
Knowledge	04
Skills	05
Behaviours	06
End Point Assessment	07
Additional Course Criteria	08-10
Contact information	11

# Improvement Technician Level 3

The Apprenticeship in Improvement Technician lasts approximately 14 months, during which participants will develop new skills and put them into practice in their day-to-day work. The information below provides a summary of the course content. However, further information and course criteria can be found on pages 08, 09 and 10.

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.

Typically, Technicians 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
- Providing local expertise in business improvement methods and basic tools to team

There are a variety of job titles associated with the occupation, these include, but are not limited to: **Business Improvement Co-ordinator, Continuous Improvement Executive, Process Technician, Operational Excellence/Lean Engineer, Lean Six Sigma Yellow belt and Quality Control Analyst.**

During the course you will study the Knowledge, Skills, and Behaviours.

# Knowledge

Improvement Technicians have the Knowledge of:

- ✓ **Compliance**
- ✓ **Team formation & leadership**
- ✓ **Self-development**
- ✓ **Project management**
- ✓ **Change management**
- ✓ **Principles & methods**
- ✓ **Project selection & scope**
- ✓ **Problem definition**
- ✓ **Process mapping & analysis**
- ✓ **Data acquisition for analysis**
- ✓ **Basic statistics & measures**
- ✓ **Process capability & performance**
- ✓ **Root cause analysis**
- ✓ **Experimentation**
- ✓ **Identification & prioritisation**
- ✓ **Sustainability & control**

# Skills

Improvement Technicians have the following Skills:

- ✓ Compliance
- ✓ Communication
- ✓ Project management
- ✓ Change management
- ✓ Principles and methods
- ✓ Project selection and Scoping
- ✓ Problem definition
- ✓ Voice of the customer
- ✓ Process mapping & analysis
- ✓ Lean tools
- ✓ Data acquisition for analysis
- ✓ Basic statistics & measures
- ✓ Data analysis-statistical methods
- ✓ Process capability & performance
- ✓ Root cause analysis
- ✓ Identification & prioritisation
- ✓ Benchmarking
- ✓ Sustainability & control

# Behaviours

Improvement Technicians demonstrate the following Behaviours:

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

# End Point Assessment

End point assessment (EPA) is an assessment of the knowledge, skills and behaviours that your apprentice has learned throughout an apprenticeship, which confirms that they are occupationally competent.

Assessments have been designed by employers in the sector and are conducted by independent bodies known as end point assessment organisations (EPAOs).

The apprentice will only get their apprenticeship certificate after they have passed all the elements of their EPA, including any required standards in English and maths.

## **What does assessment involve?**

Each apprenticeship includes an end point assessment plan, which describes how the apprentice should be tested against appropriate criteria, using suitable methods. For example, your apprentice may need to complete:

- a practical assessment
- an interview
- a project
- written and/or multiple-choice tests
- a presentation
- professional discussion

We will inform you at the beginning of the apprenticeship what the assessments are involved. This will give your apprentice plenty of time to prepare. For example, they may need to gather evidence to show how they've been working towards the core knowledge, skills and behaviours required.

# Additional description of Improvement Technician's Knowledge:

**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

# Additional description of Improvement Technician's Skills:

**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

# Additional description of Improvement Technician's 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 organisations values, trusted to working on 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

**For further information about our  
courses please contact John Sims**

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