



Level 3 NVQ Diploma in

**Business-Improvement Techniques**

# ENGINEERING

## Qualification Specification

### Overview

This qualification is a National Vocational Qualification (NVQ) based on the Business-Improvement Techniques national occupational standards developed by Semta, the Sector Skills Council for the science, engineering and manufacturing technologies. The qualification is about occupational competence and involves the skills and knowledge needed to be able to carry out a range of activities related to lean business process and quality improvement.

### Typical Job

Employees involved in carrying out business improvement activities within a team such as team members and team leaders and those with specific responsibility for delivering business improvements such as continuous improvement leaders/specialists, process/quality improvement leaders and managers.

Qualification code:	501/0856/6
Level:	3
Credit value:	94
Guided learning hours:	333
Total Qualification Time:	940 Hours
Minimum learning age:	16



## Purpose of qualification

### What does this qualification cover?

The qualification is broad and cross-functional and is designed to support the overall effective operation of businesses across a variety of sectors. It comprises of two pathways covering process improvement or quality improvement. It recognises competence in contributing to quality and process improvements in the workplace and encourages practices that can maximise profit by eliminating waste, improving workflow and reducing cost and variation

### Who is this qualification for?

Anyone responsible for carrying out or applying quality and process improvements in the workplace such as supervisors, team leaders or facilitators with responsibility for improving business performance. Those people who through Continuous Professional Development are being prepared to take on staff responsibilities in a business improvement environment.

## Who supports the qualification?

This qualification is:

- Regulated by Ofqual at level 3
- Supported by SEMTA
- Developed with industry support.

## What could this qualification lead to?

The qualification provides progression opportunities for learners seeking to enter into an Apprenticeship and is included in the Semta Apprenticeship Framework: Operations and Quality Improvement (England).

## Entry requirements

There are no formal entry requirements for this qualification; however centres should ensure that the learners have the potential to achieve this qualification. Learners must have the minimum levels of literacy and numeracy to complete the learning outcomes and the assessments.

## How is the qualification achieved?

The qualification is achieved when all the necessary units have been completed. The centre will then be able to apply for the learner's certificate of achievement. The learners will also receive a certificate of unit credit, listing all the units they have achieved.

## What will be assessed?

The assessment criteria within the selected units covering the relevant business improvement activity. This qualification is not graded, learners can achieve a pass or be refer only.

## How will it be assessed?

The assessment of the qualification must be through an EAL approved assessment Centre.

The learner must be working 'on-the -job' and all assessment decisions must be based on performance and knowledge evidence produced by the learner unaided. Assessment will be carried out in the workplace (unless otherwise specified) via observation and the collation of evidence in a portfolio.

## Structure

**Pathway: Process Improvement – NVQ Number: 501/0856/6PRO. The learner is required to complete the five 'mandatory assessment routes' plus one of the optional assessment routes and two further optional assessment routes which may come from the Quality Improvement pathway.**

**Mandatory assessment routes: all must be completed**

EAL Code	Assessment Route Title	GLH	Ofqual Code
QBIT2/001	Complying with statutory regulations and organisational safety requirements	35	A/601/5031
QBIT3/002	Leading effective teams	26	T/600/5306

**Optional assessment routes: choose all of the following:**

QBIT3/003	Applying workplace organisation techniques	51	J/600/5309
QBIT3/004	Applying continuous improvement techniques (Kaizen)	55	D/600/5316
QBIT3/005	Developing visual management systems	41	K/600/5318

**Optional assessment routes: plus one of the following:**

QBIT3/006	Creating flexible production and manpower systems	42	K/600/5321
QBIT3/007	Carrying out problem solving activities	41	Y/600/5315

**Optional assessment routes: plus two more assessment routes both of which may be chosen from the Quality Improvement pathway. Note: whichever assessment route is chosen from above (i.e. QBIT3/006 or QBIT3/007), it cannot then be chosen again as one of the optional assessment routes below.**

QBIT3/006	Creating flexible production and manpower systems	42	K/600/5321
QBIT3/007	Carrying out problem solving activities	41	Y/600/5315
QBIT3/008	Analysing and selecting parts for improvement	58	M/600/5319
QBIT3/009	Applying lead time analysis	42	F/600/5325
QBIT3/010	Carrying out value stream mapping (VSM)	58	L/600/5330
QBIT3/011	Applying set up reduction techniques	58	D/600/5333
QBIT3/012	Applying total productive maintenance (TPM)	54	T/600/5323
QBIT3/013	Applying flow process analysis	58	R/600/5314
QBIT3/014	Applying policy deployment (Hoshin Kanri, quality operating systems, business plan deployment)	42	H/600/5334
QBIT3/015	Applying value management (value engineering and value analysis) activities	50	K/600/5335
QBIT3/016	Creating standard operating procedures (SOP)	42	M/600/5336

## Structure

**Pathway: Quality Improvement - NVQ Number: 501/0856/6QUA. The learner is required to complete the six 'mandatory assessment routes' plus three optional assessment routes where two of these could come from the Process Improvement pathway.**

**Mandatory assessment routes: all must be completed**

EAL Code	Assessment Route Title	GLH	Ofqual Code
QBIT2/001	Complying with statutory regulations and organisational safety requirements	35	A/601/5031
QBIT3/002	Leading effective teams	26	T/600/5306

**Optional assessment routes: choose all of the following:**

QBIT3/017	Applying Six Sigma methodology to a project	62	F/600/5308
QBIT3/018	Carrying out Six Sigma process mapping	58	M/600/5305
QBIT3/019	Applying basic statistical analysis	36	F/600/5311
QBIT3/020	Applying failure modes and effects analysis (FMEA)	42	J/600/5312

**Optional assessment routes: plus three more assessment routes of which two may be chosen from the Process Improvement pathway**

QBIT3/021	Applying mistake/error proofing (POKA YOKE)	42	H/600/5317
QBIT3/022	Carrying out of statistical process control (SPC) procedures	35	A/600/5307
QBIT3/023	Applying Six Sigma metrics to a project	43	L/600/5313
QBIT3/024	Producing a characteristic selection matrix	42	H/600/5320
QBIT3/025	Carrying out measurement system analysis (MSA)	42	J/600/5326
QBIT3/026	Carrying out capability studies	58	R/600/5331
QBIT3/027	Producing multi variance charts	42	Y/600/5332
QBIT3/028	Applying hypothesis testing	42	Y/600/5301

