



Level 1 Certificate in **ENGINEERING TECHNOLOGIES**

Qualification Specification

Overview

This qualification has been developed to provide learners with a broad introduction to the practices and processes of engineering technology. It covers basic knowledge, understanding and skills that are relevant to a wide variety of careers and study routes within the engineering industry and takes a hands-on approach to basic engineering training.

Typical Job

Mechanical Fitter, Maintenance Engineer, Manufacturing Engineer, Electrical Engineer, Electronics Engineer, Sheet Metal Worker, CNC Operator, Welder.

Qualification code:	601/5658/2
Level:	1
Total qualification time	200
Guided learning hours:	Min 160 - Max 160
Minimum learning age:	14

Purpose of qualification

The EAL Level 1 Certificate in Engineering Technologies is a Vocational Related Qualification (VRQ). The content and structure of the qualification has been developed to provide learners with a broad introduction to the practices and processes of engineering technologies. It covers basic knowledge, understanding and skills that are relevant to a wide variety of careers and study routes within the engineering industry and takes a hands-on approach to basic engineering training by providing learners with:

- An understanding of a range of potential careers and apprenticeships in the engineering sector
- Experience and knowledge to be able to make an informed decision about a specific career within engineering
- Information that will help them make an informed decision about their post-16 options
- Personal skills to help them work effectively and achieve their potential

This is a graded qualification; learners can achieve a Pass, Merit or Distinction.

What does this qualification cover?

This qualification has one core mandatory unit, which provides learners with an introduction to working in the engineering sector, and 25 optional units, from which a learners will select three from the qualification units and structure listed on pages 3 and 4.

Who is this qualification for?

This qualification is predominantly for learners in full time education who are interested in engineering and would like to gain a basic level of knowledge and understanding about the engineering sector. The qualification may also be suitable for learners who are interested in engineering technology and/or are considering a career change. The qualification has been specifically designed to offer progression into a higher level of study or an Apprenticeship.

It is suitable for learners aged:

- 14-16
- 16-18
- 19+

Who supports this qualification?

This qualification is:

- Regulated by Ofqual at Level 1
- Endorsed by a number of post-16 providers as facilitating progression to a range of Engineering Apprenticeships or a range of post-16 learning programmes at level 2 and 3.

What could this qualification lead to?

Typical job roles include:

Mechanical Fitter, Maintenance Engineer, Manufacturing Engineer, Electrical Engineer, Electronics Engineer, Sheet Metal Worker, CNC operator, Welder.

This qualification relates to:

- EAL Level 1 NVQ Certificate in Performing Engineering Operations
- EAL Level 2 NVQ Diploma in Performing Engineering Operations
- EAL Level 2 Certificates and Diplomas in Engineering and Technology subjects, such as mechanical, electrical, welding, maintenance, and plumbing
- Further EAL level 2 engineering and manufacturing competence qualifications

Entry requirements

Learners must be at least 14 years old. There are no formal entry requirements for this qualification. However, learners must have the potential to achieve all aspects of the qualification. In particular, learners should be able to demonstrate that they have the minimum levels of literacy and numeracy required to comply with the health and safety aspects of the scheme, the completion of the learning outcomes, and the assessments.

How is the qualification achieved?

This qualification will be achieved when the learner has successfully completed:

- The core mandatory unit, comprising an on-screen multiple-choice examination
- Three of the optional units, comprising Centre marked practical/theory assessments

What will be assessed?

This qualification is made up of units to which appropriate assessment methods have been applied. The units contain the learning outcomes and the assessment criteria that the learner is to be assessed against.

All learning outcomes within the qualification will be assessed. In order to meet this requirement, it is advised that centres should maintain an assessment and feedback record for each learner. This will detail the evidence evaluated against the learning outcome and the feedback given to the learner. All learner evidence must be available to the EAL External Quality Assurer.

Grading Criteria

Learners must achieve a Pass in ALL components for the qualification to be awarded. If learners are unsuccessful in one or more of the assessment components then the overall result for the qualification will be 'referred' and a certificate will not be awarded.

Providing learners are successful in ALL assessment components, the final grade for the qualification will be determined from the grades achieved by learners in the external examination within the mandatory unit and the centre marked assessments within the optional units.

Please refer to the Grading Criteria within the Delivery Packs and Assessment Packs on how to grade individual units.

How will it be assessed?

Assessment methods within this qualification include an on-screen multiple choice examination for the mandatory unit and a Centre marked practical and theory assessments for the optional units. Assessment methods have been designed to assess the knowledge, understanding and skills of learners for both units.

The on-screen multiple choice examination is set by EAL and marked by EAL. The internal assessment is set by EAL and marked by members of the delivery team at the Centre.

Where the assessment takes the form of written/short answer or multiple choice question papers, these must be treated as controlled assessments.

All assessment decisions are then subject to internal and external quality assurance.

Structure

This qualification will be obtained by the learner once they have successfully completed the **one mandatory unit** and **three optional units** from the units listed below.

The qualification has 20 credits and 160 Guided Learning Hours (GLH) and 200 hours Total Qualification Time (TQT).

Mandatory unit:

Unit	Unit title	Credit	GLH	Ofqual Code
QET1/001	Introduction to Working in Engineering	5	40	D/507/0253

Optional units - select three of the following units:

Unit	Unit title	Credit	GLH	Ofqual Code
QET1/002	Introduction to Machining Engineering Materials	5	40	F/507/0181
QET1/003	Introduction to Cutting, Forming and Assembling Engineering Materials	5	40	J/507/0182
QET1/004	Introduction to Joining Engineering Materials	5	40	D/507/0186
QET1/005	Introduction to Electronics	5	40	M/507/0189
QET1/006	Introduction to Electrical Installation	5	40	M/507/0192
QET1/007	Introduction to Mechanical and Electrical Maintenance	5	40	T/507/0193
QET1/008	Introduction to Computer Maintenance	5	40	J/507/0196
QET1/009	Introduction to Motor Cycle Maintenance	5	40	L/507/0197
QET1/010	Introduction to Motor Vehicle Maintenance	5	40	Y/507/0199
QET1/011	Introduction to Cycle Maintenance	5	40	L/507/0202
QET1/012	Introduction to Automated Technologies	5	40	D/507/0205
QET1/013	Introduction to Basic Maths and Science used in Engineering	5	40	H/507/0206
QET1/014	Introduction to Working With Customers	5	40	M/507/0208

Optional units *continued*

Unit	Unit title	Credit	GLH	Ofqual Code
QET1/015	Introduction to Computer Aided Drawing (CAD)	5	40	K/507/0210
QET1/016	Introduction to Computer Aided Machining (CAM)	5	40	F/507/0214
QET1/017	Introduction to Engineering Project Planning	5	40	R/507/0220
QET1/018	Introduction to Cutting, Forming and Assembly of Pipework Materials	5	40	H/507/0223
QET1/019	Introduction to Cutting, Jointing and Finishing Wood	5	40	F/507/0228
QET1/020	Introduction to Tungsten Inert Gas Welding	5	40	L/507/0233
QET1/021	Introduction to Metal Inert Gas Welding (MIG/MAG)	5	40	Y/507/0235
QET1/022	Introduction to Manual Metal Arc Welding	5	40	H/507/0237
QET1/023	Introduction to Oxy-Acetylene Welding	5	40	K/507/0241
QET1/024	Introduction to Brazing and Soldering	5	40	J/508/4891
QET1/025	Introduction to Thermal Cutting Techniques	5	40	D/508/4895
QET1/026	Introduction to Additive Manufacturing (3D Printing)	5	40	T/508/4899