



Level 1 Certificate in **ENGINEERING and MANUFACTURE**

Qualification Specification

Overview

This qualification has been developed predominantly for young people in full time education who are interested in engineering and would like to acquire a basic level of knowledge and practical skills relating to the engineering sector.

Typical Job

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

Qualification code:	600/5973/4
Level:	1
Total qualification time:	140
Guided learning hours:	Min 120 Max 120
Minimum learning age:	14

Purpose of qualification

This qualification has been specifically designed to offer progression into the EAL Level 2 Certificate and Level 2 Diploma in Engineering Technologies. It gives learners a broad introduction to the practices and processes of engineering and manufacture. It covers basic knowledge, understanding and skills that are relevant to a wide variety of careers and study routes and takes a hands-on approach to basic engineering training by providing learners with:

- Experience and understanding of a range of potential careers in the engineering sector
- Information that will help them make more informed decisions about their post-16 options
- Personal skills to help them work effectively and achieve their potential
- Transferable skills and skills that are not widely advanced through the traditional academic curriculum, which are applicable to a wide variety of contexts and learning objectives.

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 20 optional units, from which a learners will select units that total a minimum of 9 credits 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 acquire a basic level of knowledge and understanding about the engineering sector. The qualification may also be suitable for learners who are interested in engineering and manufacturing and/or are considering a career change. The qualification has been specifically designed to offer progression into the EAL Level 2 Certificate and Level 2 Diploma in Engineering Technologies.

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.

The qualification also provides progression into the following engineering qualifications at level 1 and 2:

- 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 Technologies 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:

- One core mandatory unit, comprising Centre marked practical/theory assessments.
- Optional units, that total a minimum of 9 credits, 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.

How will it be assessed?

Assessment methods within this qualification include Centre marked practical and theory assessments for all units. Assessment methods have been designed to assess the knowledge, understanding and skills of learners for each unit.

The internal assessments are 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 a minimum of **NINE credits from the optional units** listed below.

The qualification has 14 credits, 120 Guided Learning Hours (GLH) and 140 hours Total Qualification Time (TQT).

Mandatory unit:

Unit	Unit title	Level	Credit	GLH	Ofqual Code
QETF/001	Introduction to Working in Engineering	1	5	40	J/602/0151

Optional units - A minimum of 9 credits from the optional units must be achieved:

Unit	Unit title	Level	Credit	GLH	Ofqual Code
QPFIG1/01	Preparing for an Interview	1	1	10	K/503/2833
QMSAG1/01	Managing study and approaches to learning	1	3	30	M/602/0967
QETF/002	Introduction to Machining Engineering Materials	1	5	40	F/602/0164
QETF/003	Introduction to Cutting, Forming and Assembling Engineering Materials	1	5	40	T/602/0274
QETF/004	Introduction to Joining Engineering Materials	1	5	40	T/602/0274
QETF/005	Introduction to Electronics	1	5	40	R/602/0279
QETF/006	Introduction to Electrical Installation	1	5	40	D/602/0284
QETF/007	Introduction to Mechanical and Electrical Maintenance	1	5	40	A/602/0289
QETF/008	Introduction to Computer Maintenance	1	5	40	L/602/0295
QETF/009	Introduction to Motor Cycle Maintenance	1	5	40	L/602/0328
QETF/010	Introduction to Motor Vehicle Maintenance	1	5	40	J/602/0330
QETF/011	Introduction to Cycle Maintenance	1	5	40	K/602/0336

Optional units *continued*

Unit	Unit title	Level	Credit	GLH	Ofqual Code
QETF/012	Introduction to Automated Technologies	1	5	40	T/602/0341
QETF/013	Introduction to Basic Maths and Science used in Engineering	1	5	40	Y/602/0347
QETF/014	Introduction to Working With Customers	1	5	40	D/602/0351
QETF/015	Introduction to Computer Aided Drawing (CAD)	1	5	40	R/602/0363
QETF/016	Introduction to Computer Aided Machining (CAM)	1	5	40	D/602/0365
QETF/017	Introduction to Engineering Project Planning	1	5	40	R/602/0380
QETF/018	Introduction to Cutting, Forming and Assembly of Pipework Materials	1	5	40	Y/602/0381
QETF/019	Introduction to Cutting, Jointing and Finishing Wood	1	5	40	D/602/0382