



Level 2 Certificate in
Preparing to Work in a Manufacturing Environment

Qualification Specification

Qualification recognition number: 603/3649/3

Qualification Reference: L2CPWME

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Section One

Centre Requirements

1.1 Introduction

Introduction to FutureQuals

FutureQuals is forward thinking, learner and customer-focused, and committed to delivering inspiring learning and skills.

Our Values

“We are a Visionary, Supportive, Innovative and Professional Awarding Organisation that is committed to excellence.”

Our Vision

“We envisage a place in which every learner realises their full potential.”

Our Mission

“To provide respected and valued qualifications and assessment to enable quality assured learning.”

FutureQuals is recognised to deliver regulated qualifications by Ofqual in England, CCEA Regulation in Northern Ireland, the Scottish Qualifications Authority (SQA Accreditation) and Qualifications Wales to offer a comprehensive and diverse range of qualifications across a wide range of vocational areas many of which are transferable across industries and sectors.

A full list of FutureQuals current qualifications can be accessed at <https://www.futurequals.com>

We have developed a genuine understanding and insight into all types of educational organisations, which ensures that we are highly responsive to their needs. We offer a wide range of benefits and support for our learners, our approved centres, and their assessment and quality assurance teams.

FutureQuals offers a wide range of benefits and support for all of our educational products and services including:

- Vocational qualifications accredited by the UK regulators and recognised by employers, universities and professional bodies
- 24/7 online management systems for the registration of learners, ensuring highly efficient services and access to assessment and results
- A diverse range of qualifications
- A flexible approach to assessment
- A network of professionals who examine and quality assure our regulated qualifications and assessments
- Regular updates on new developments in education and training
- Unrivalled customer service support and extensive guidance materials.

Introduction to Qualification Specification

Welcome to the FutureQuals specification for the **FAQ Level 2 Certificate in Preparing to Work in a Manufacturing Environment**. The aim of this specification is to provide our centres with guidance to assist in the administration, delivery and assessment of this qualification. It is recommended that you study this specification in detail and become fully conversant with the procedures and accompanying documents.

This specification is a live document and, as such, will be updated when required. Centres will be notified when changes are made. It is the responsibility of the approved centre to ensure the most up to date version of the Approved Specification is in use.

This document is copyright but may be copied by approved centres for the purpose of assessing learners. It may also be copied by learners for their own use.

1.2 Data Protection

FutureQuals is registered with the Data Protection Act and handles all data in accordance with the required procedures of the Act.

1.3 Complaints

FutureQuals aims to constantly monitor the levels of service provided and report on performance indicators on a regular basis. We will endeavour to be open about the levels of service we aim to offer all our customers.

However, if we fall short of expectations or our own standards, we want to give the opportunity for those affected to provide feedback so we can put things right.

Our Complaints Policy, which includes information on how to make a complaint, can be found on the FutureQuals website.

1.4 Enquiries

Any enquires relating to this qualification should be addressed to:

Future (Awards and Qualifications) Ltd
EMP House
Telford Way
Coalville
Leicestershire
LE67 3HE

Tel: 01530 836662

E-mail: qualifications@futurequals.com

Website: <https://www.futurequals.com/>

Section Two

Qualification Information

2.1 Qualification Outline

Purpose and Aims

The purpose of this **FAQ Level 2 Certificate in Preparing to Work in a Manufacturing Environment** is to provide the learner with the basic knowledge needed to help secure employment within an engineering manufacturing environment. This qualification has been developed in consultation with employers who are keen to bring new entrants, who have little or no previous experience of a manufacturing environment, into the workforce. It is based on employers' expectations of what a prospective employee should know prior to entering their workplace. This qualification is focused on making a prospective employee work ready, it does not remove the need for any subsequent training they may require once they are employed.

The Total Qualification Time (TQT) for this qualification is 210

Guided Learning (GL) for this qualification is 165 hours

Minimum credits required to achieve the qualification: 21

Suitable for age ranges: Pre-16, 16-18, 18+ 19+

Method of assessment:

- Portfolio of evidence which can be made up of:
 - Short answer written questions
 - Observations of learners performing a task and practical demonstrations
 - Professional discussions

This qualification is internally assessed and internally quality assured by Centre staff and Externally quality assured by FutureQuals External Quality Advisors (EQAs). This qualification is assessed by means of a portfolio of evidence comprising centre-set assessments, formal observations, and where appropriate, reflective statements from the learner.

If the method of assessment includes formative assessments such as practical tasks, written questions, multiple choice/short answer and knowledge assessment tasks, where supervision of a learner assessment is required, assessment must be undertaken in line with the requirements set on in the FutureQuals Instructions for Conducting Controlled Assessments Policy. This document is published on the Policies and Procedures section of the FutureQuals website.

Grading: There is no specific grading criteria for this qualification.

Entry guidance: There are no formal qualification entry requirements that a learner must have completed before taking this qualification and no requirement for learners to have prior skills, knowledge or understanding.

Exit Requirements: None

2.2 Additional Information

This qualification is regulated by the Office of the Qualifications and Examinations Regulator (Ofqual) in England <https://register.ofqual.gov.uk/Qualifications>

It may be eligible for public funding as determined by the Department for Education (DfE) under Sections 96 and 97 of the Learning and Skills Act 2000, Qualification Wales and Department for the Economy in Northern Ireland.

For information regarding potential sources of funding please, visit the following websites:

<https://hub.fasst.org.uk/Pages/default.aspx>

<https://www.gov.uk/government/organisations/education-and-skills-funding-agency>

<https://www.economy-ni.gov.uk/>

<https://semta.org.uk/>

Alternatively, contact your local funding office.

You should use the Qualification Accreditation Number (QAN) when you wish to seek public funding for your learners. Each component within a qualification will also have a unique reference number (Component Reference Number), which is listed in this specification. The qualification title and component reference numbers will appear on the learner's final certification document. Learners need to be made aware of this detail when they are recruited by the centre and registered with FutureQuals.

2.3 Progression

The Level 2 Certificate in Preparing to Work in a Manufacturing Environment can support progression on to Level 3, GCE A level or other qualifications in the engineering manufacturing sector, engineering apprenticeships and directly into full time employment.

2.4 Assessment Principles

The FAQ Level 2 Preparation for Working in a Manufacturing Environment must be assessed according to the FutureQuals Assessment Principles. The full version of the FutureQuals Assessment Principles can be accessed here: [https:// www.futurequals.com/assets/AssessmentPrinciples.pdf](https://www.futurequals.com/assets/AssessmentPrinciples.pdf)

2.5 Qualification Structure

To achieve the **FAQ Level 2 Certificate in Preparing to Work in a Manufacturing Environment**, learners must achieve a minimum of 21 credits/components. They must gain all 21 credits/components from Mandatory Group M.

Group M – Mandatory				
Component Number	URN	Component Name	Credit Value	Level
1	M/617/2473	Communicating effectively in a manufacturing environment	4	2
2	T/617/2474	Preparing, performing and concluding manufacturing operations.	4	2
3	A/617/2475	Solving Work-related Problems	3	2
4	F/617/2476	Using hand tools and equipment in a Manufacturing Environment	5	2
5	J/617/2477	Working in the Manufacturing Environment	5	2

2.6 Barred Components and Exemptions

Components with the same title at different levels, or components with the same content, cannot be combined in the same qualification.

Section Three

Assessment Principles and Component Specifications

3.1 Assessment Principles

FutureQuals qualifications will always use Assessment Principles whether they have been developed by a Sector Skills Council (SSC) or FutureQuals own. The latest version of the Assessment Principles are available on the FutureQuals website and should be used in conjunction with any qualification specific assessment principles. You can view the principles online at <https://www.futurequals.com/assets/AssessmentPrinciples.pdf>. Any Assessment Principles specific to a qualification will always be re-produced in the specification they relate to.



3.2 Component Specifications

Component 1: Communicating effectively in a manufacturing environment

Component Reference Number: M/617/2473

Level: 2

Credit: 4

GL: 30

Component Summary

The purpose of this component is for the learner to gain understanding of communication in a manufacturing environment. Learners will understand the importance of effective communication, communication techniques and how communication affects team development.

Assessment Guidance

This component must be assessed in line with the FutureQuals assessment principles.

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
1. Understand the importance of communication in the manufacturing environment.	1.1 Explain the importance of communication in manufacturing.
	1.2 Describe methods of communication used in a manufacturing workplace.
	1.3 Identify the roles and responsibilities of departments and personal within an engineering organisation.
	1.4 Describe implications of poor communication.
	1.5 Indicate how to obtain and follow necessary job instructions.
2. Understand effective communication in manufacturing workplaces.	2.1 Identify factors to consider when communicating verbally.
	2.2 Describe the importance of using the correct grammar and punctuation in written communications.
	2.3 Describe the factors to consider when communicating with people external to a manufacturing organisation.
	2.4 Describe the importance of having company values.

3. Understand how to communicate technical information in a manufacturing workplace.	3.1 Explain how to communicate technical information in a manufacturing workplace.
	3.2 Explain the importance of using correct terminology to communicate technical information in a manufacturing workplace.
4. Understand how effective communication affects team development.	4.1. Describe how effective communication can contribute to team development.
	4.2 Explain the benefits of contributing to team development.
	4.3 Describe how to identify improvements and how to communicate them effectively.
	4.4 Give examples of the benefits of identifying improvements to: <ul style="list-style-type: none"> • team • own organisation.

Component 2: Preparing, performing and concluding manufacturing operations

Component Reference Number: T/617/2474

Level: 2

Credit: 4

GL: 30

Component Summary

The purpose of the component is to help prepare the learner for working within the manufacturing industry, and to provide them with knowledge and understanding of preparing, performing and concluding manufacturing operations including; starting and stopping procedures, identifying hazards and procedures.

Assessment Guidance

This component must be assessed in line with the FutureQuals assessment principles.

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
1. Understand how to prepare for manufacturing operations.	1.1 Describe what checks need to be carried out on tools and equipment.
	1.2 Explain how to prepare materials required for each operation.
	1.3 Explain how the work area needs to be laid out.
	1.4 Explain the process to follow if the work area, tools and/or equipment are not suitable for the required operation.
2. Understand how to perform manufacturing operations.	2.1 Explain assembly operations to be performed.
	2.2 Describe what faults could occur and how to identify them.
	2.3 identify why it is important to follow assembly sequences and procedures at all times.
	2.4 identify the potential hazards associated within each stage of the manufacturing process.
	2.5 Explain how to check and record the quality of the product and identify differences from the specification or standard.

3. Understand how to conclude manufacturing operations.	3.1 Identify when in the manufacturing operation it is safe to shut down or stop the activity.
	3.2 Explain what completion checks need to be made.
	3.3 Explain what problems could occur within completion or shutdown activities and how they could be avoided.
	3.4 Explain the procedure for cleaning equipment and tools.
	3.5 Explain methods to take to reduce waste in the manufacturing process.
4. Be able to prepare, perform, and conclude manufacturing operations.	4.1 Demonstrate how to prepare manufacturing operations.
	4.2 Demonstrate how to perform manufacturing operations.
	4.3 Demonstrate how to conclude manufacturing operations.

Component 3: Solving work-related problems

Component Reference Number: A/617/2475

Level: 2

Credit: 3

GL: 25

Component Summary

To provide learners with knowledge, understanding and skills to problem-solve within a manufacturing environment including, dealing with problems that arise in the workplace and presenting solutions.

Assessment Guidance

This component must be assessed in line with the FutureQuals assessment principles.

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
1. Understand problems that arise in the workplace.	1.1 Explain the main reasons that individuals encounter problems in the workplace.
	1.2 Describe common types of problems that an organisation or company might need to solve.
	1.3 Explain the importance of personal behaviour when solving problems.
2. Know how to use sources of help for workplace problems.	2.1 Describe sources of help available to both individuals and to organisations to solve work-related problems.
	2.2 Present information or advice from several different sources to help solve workplace problems encountered by individuals.
3. Understand how to solve workplace problems.	3.1 Describe own responsibilities in reporting unsolvable problems.
	3.2 Describe possible solutions to different workplace problems.
	3.3 Outline the solutions to problems according to their likely effectiveness.
	3.4 Explain the reasons for prioritising workplace problems.

4. Know how to apply techniques to solve workplace problems.	4.1 Describe techniques for solving problems.
	4.2 Present plans for carrying out solutions to solve workplace problems.

Component 4: Using hand tools and equipment in a manufacturing environment

Component Reference Number: F/617/2476

Level: 2
Credit: 5
GL: 40

Component Summary

To provide learners with the knowledge, understanding and skills to use equipment appropriately and safely and the ability to follow standard operating procedures in a manufacturing environment.

Assessment Guidance

This component must be assessed in line with the FutureQuals assessment principles.

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
1. Be able to use equipment safely.	1.1 List essential and additional Personal Protective Equipment (PPE).
	1.2 Plan PPE requirements for a task.
	1.3 Select and use appropriate PPE.
	1.4 Safely use equipment in accordance with Standard Operating Procedures.
	1.5 Conduct Pre-and Post-Shift Safety Checks to include work area and tools.
2. Know the appropriate techniques required for engineering manufacturing activities.	2.1 Describe techniques employed within manufacturing activities.
3. Be able to follow standard operating procedures within the engineering manufacturing industry.	3.1 Apply Standard Operating Procedures to the manufacturing activity.
	3.2 Follow Instructions and process flows according to agreed ways of working.
	3.3 Complete tasks within agreed timeframes.
4. Be able to select and use appropriate tools to carry out engineering manufacturing activities.	4.1 Identify manufacturing hand tools according to their role.
	4.2 Describe the purpose of manufacturing hand tools .
	4.3 Demonstrate techniques for manufacturing hand tools to create a basic finish or product.

5. Be able to use appropriate equipment to carry out engineering manufacturing activities.	5.1 Identify manufacturing equipment according to its role.
	5.2 Describe the purpose of manufacturing equipment .
	5.3 Demonstrate techniques for using manufacturing equipment .

Additional information:

Techniques can include: fusion joining, non-fusion joining, assembly, mechanical fastening.

Equipment can include hand tools such as:* drills, drill bits and countersinking bits, Reamers, Thread cutting taps and dies, Files, Hacksaws, Hammers, Mallets, Punches, Drifts, Spanners (open-ended and ring), Sockets, Torque wrench, Screwdrivers, Hex keys, Pliers/side cutters, Wrenches, Vices and clamps, Pistol drills, Powered screwdrivers, Jigsaws, Powered Saws, Riveting pliers, Welding Machines.

*These examples are illustrative only and do not form an exhaustive list.

Component 5: Working in the manufacturing environment

Component Reference Number: J/617/2477

Level: 2

Credit: 5

GL: 40

Component Summary

To provide learners with knowledge and understanding of the main requirements for working in the manufacturing environment, including health and safety and quality assurance procedures.

Assessment Guidance

This component must be assessed in line with the FutureQuals assessment principles.

Learning Outcome - The learner will:	Assessment Criterion - The learner can:
1. Understand the role of Health and Safety requirements in the workplace.	1.1 Describe the principles of The Health and Safety at Work Act.
	1.2 Describe own responsibilities under The Health and Safety at Work Act.
	1.3 Describe the principles of the Provision and Use of Work Equipment Regulations.
	1.4 Explain the need for pre-and post-shift safety checks.
	1.5 Explain the actions to take in the event of an emergency.
2. Understand the reasons for safe manual handling.	2.1 Outline the potential injuries and ill health associated with incorrect manual handling.
	2.2 Outline employers and employees duties relating to manual handling at work.
	2.3 Outline the consequences for noncompliance with health and safety requirements at work.
3. Be able to apply health and safety principles.	3.1 Demonstrate efficient and safe manual handling principles when: A. applying effort to, or moving a load or object manually on their own B. when using manual handling aids and equipment

	C. when undertaking a manual handling task as part of a team.
	3.2 Demonstrate safe health and safety procedures for the work place/environment.
4. Understand the importance of Quality Assurance in the manufacturing environment.	4.1. Describe how products are quality assured in the manufacturing environment.
	4.2 Explain why quality assuring in the manufacturing environment is important.
	4.3 Describe the potential impacts of substantial quality to a company.
5. Know the importance of continuous tools in a manufacturing environment.	5.1 Recognise a range of continuous improvement tools .
	5.2 Describe the main principles of continuous improvement.
	5.3 Identify the main principles of continuous improvements tools manufacturing.

Section Four

Centre Information

4.1 Centre Operations Manual

Information regarding centre support, learner registration, certification, reasonable adjustments and special consideration, complaints and appeals can be found in the [Centre Operations Manual](#).

4.2 Initial Assessment and Centre Learner Support

It is important that centres carry out an initial assessment to identify what knowledge and degree of skills the learner already has, and to identify if any support or reasonable adjustments will be required to enable them to be assessed fairly. This may include an assessment of minimum core personal skills in English, Mathematics and ICT.

This can be recorded so that centres can identify any associated needs and record this in appropriate plans. This will help in planning the learning programme. It is important at the initial assessment stage to ensure that learners commence a programme at the appropriate level.

Centres should assess each learner's potential and make a professional judgement about his/her ability to successfully complete the programme of study and achieve the qualification.

This assessment will need to take account of:

- the support available to the learner within the centre during his/her programme of study
- any specific support that might be necessary to allow the learner to access the assessment for the qualification
- Diagnoses of the requirements of the learner, making use of specialist advice from external sources, as appropriate.

Centres should identify any learner requirements and how they may affect successful completion of the particular programme. Programme teams should refer closely to the qualification specifications when discussing possible options for learners. They should advise learners on the appropriateness of the qualification to the learner and identify more suitable qualifications if necessary.

It is our intention that there should be no discrimination on the grounds of a protected characteristic. FutureQuals and approved centres have a responsibility to ensure that the process of assessment is robust and fair and allows a learner to show what they know and can do without compromising the assessment criteria.

Details on how to make adjustments for learners to ensure fair access to assessment is set out in the FutureQuals *Reasonable Adjustment and Special Considerations* policy.

4.3 Identification Requirements and Learner Authenticity

Identification Requirements

It is a centre's responsibility to confirm the identity of a learner as part of its registration process. A centre may do this by requesting sufficient personal data and a unique learner number (ULN) to ensure the learner can be clearly and uniquely identified.

The use of a ULN is now a mandatory requirement for publicly funded education and when submitting Individualised Learner Record (ILR) returns.

Centres must have systems in place to ensure that an individual completing an assessment is the person he/she is claiming to be.

Therefore, centres are required to ensure that each learner's identification is checked and that the type of identification provided by each learner is recorded before assessments are undertaken. FutureQuals External Quality Assurers will check this record during quality assurance monitoring activities.

The following would be permitted proof of a learner's Identity:

- a valid passport (any nationality)
- a signed UK photo card driving licence
- valid warrant card issued by HM Forces or the Police
- other photographic ID card, e.g. employee ID card (must be current employer), student ID card, travel card
- UK biometric residence permit.

If an assessment is taking place in a learner's place of work and a learner is unable to supply any of the above, authentication of a learner's identity by a third-party representative, for example, his/her line manager or a member of his/her workplace Human Resources Team can be accepted.

Learner Authenticity

It is a regulatory requirement that every assessment submission is authenticated as the work of the named learner whether submitted to a centre or to FutureQuals. Therefore, the FutureQuals Evidence Logbook requires that a declaration of authenticity is signed by a learner for each assessment submitted.

By signing the declaration, a learner is acknowledging that if the statement is untrue, an assessment breach has been committed.

If a centre uses electronic systems or e-portfolios, an alternate form of formal declaration of authenticity must be completed with each assessment that is submitted.

If a centre uses its own version of the FutureQuals Evidence Logbook it must ensure that the version used captures the same information i.e. the assessment method, evidence reference, the assessor's decision (including the signature and date to evidence completion assessment) and the learner's declaration of authenticity.

Any submission that does not carry a formal declaration of authenticity will not be externally quality assured. If an alternate formal declaration of authenticity is completed by a learner it must, as a minimum, include the statement:

Statement of confirmation of authenticity

I declare that the work presented for this component is entirely my own work.

The learner must sign and date the declaration.

4.4 Legal Considerations

Learners and centres should be aware of regulations affecting those who deal with children, young people and vulnerable adults in the country the qualification is delivered in.

The Prevent Duty Guidance available from the Home Office makes clear the important role of further education leaders in stopping extremists seeking to radicalise learners on campuses and in supporting learners at risk of extremist influences.

Ofsted has responsibility for monitoring the Prevent Duty in publicly funded further education and skills providers.

FutureQuals[™]

INSPIRING LEARNING AND SKILLS

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