ENERGY & UTILITY SKILLS

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EUIAS Level 2 End-point Assessment Apprentice Guide for

Engineering Operative

Maintenance role
Mechanical manufacturing engineering role
Electrical and electronic engineering role
Fabrication role
QAN 610/1779/6

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EUIAS Level 2 End-point Assessment Apprentice Guide for

Engineering Operative

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Updates to this Guide

Since the first publication of the EUIAS Engineering Operative Apprentice Guide, the following updates have been made.

Version	Date first published	Section updated	Page(s)
V1.0	July 2023	First published	All

At A Glance Component 1: Practical Skills Observation

Date(s):	
Time:	
Location:	
Examination Conditions:	With an EUIAS assessor in your place of work or training environment
Additional Requirements:	
Assessed and marked by:	Independent assessor/EUIAS

At A Glance Component 2: Professional Discussion based on a portfolio of evidence

Date(s):	
Time:	
Location:	
Examination Conditions:	With an EUIAS assessor in your place of work or training environment
Additional Requirements:	A mapping document must be submitted with the evidence
Assessed and marked by:	Independent assessor/EUIAS

Introduction

EUIAS has been selected by your employer to carry out end-point assessment (EPA) and it is our job to ensure that you are assessed fairly.

How This Apprentice Guide Is Organised

- ✓ Section 1:

  What is in the Apprentice Guide?

- ✓ Section 2:

  An Apprentice's End-point Assessment Journey

- ✓ Section 3:

  End-point Assessment Components

How to Use This Guide

This guide has been split into 3 sections. You can dip into each section that you are working on where you will find useful information, practical advice, tips you need and useful dates to successfully complete your EPA.

Throughout we have used headings and cross referenced to our EPA Engineering Operative (EO) Specification which provides details of the EPA components.

Section 1: The Basics

What is an Apprenticeship Standard?

An apprenticeship standard is a description of your apprenticeship and it is based on the Engineering Operative standard, which was written by employers. It contains the engineering operatives job profile, and describes the knowledge, skills and behaviours (KSBs):

- Knowledge: (as part of KSBs) – specific information, technical detail, and 'know-how' identified as part of the apprenticeship standard that must be evidenced during your end-point assessment
- Skills: (as part of KSBs) – the practical application of knowledge identified as part of the apprenticeship standard that must be evidenced during end-point assessment
- Behaviours (as part of KSBs) – specific mindsets, attitudes or approaches identified as part of the apprenticeship standard that must be evidenced during end-point assessment

The standard can be accessed via the link below:
https://www.instituteforapprenticeships.org/apprenticeship-standards/engineering-operative-v1-2

What is an Assessment Plan?

An Assessment Plan is also written by employers and provides details of what is required for you to pass your end-point assessment. It includes details of what you will be assessed on, how each assessment will take place, what methods will be used and who will assess you.

EUIAS designed the end-point assessment (EPA) to meet the requirements of the Assessment Plan. The Assessment Plan can be accessed via the link below:
https://www.instituteforapprenticeships.org/media/200d0l5e/st0537_engineering-operative_l2_v11.pdf

What is an end-point assessment (EPA)?

The end-point assessment is the assessments you take at the end of your apprenticeship. Your apprenticeship will typically take 12 -18 months. You are required to spend a minimum of 12 months on-programme. After this you have a Gateway meeting with your employer or training provider to confirm you are ready for the end-point assessments. The words end-point means that you will be assessed at the end of your on-programme (training) to confirm you have met the standard. Your EPA period typically last 3 months. The end-point assessments consist of 2 components:

- Practical Skills Observation
- Professional Discussion based on your portfolio of evidence

Each component has a provisional grade and each grade is carried forward to award a final grade. You must pass both components to pass your apprenticeship.

The final grade can be a Fail, Pass or Distinction.

What are the Gateway Requirements?

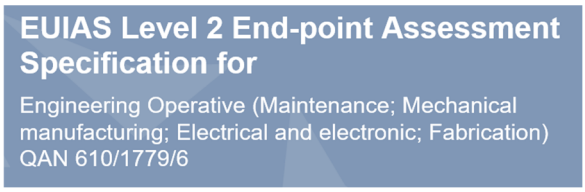
Gateway is a meeting where your employer, training provider and you ensure that you are confident that you can demonstrate all the KSBs defined in the apprenticeship standard and you are ready for EPA. After the meeting, your training provider will confirm the outcomes of the Gateway meeting by sending a signed document to EUIAS. The document confirms that you have met the following Gateway requirements:

- achieved English and maths at Level 1
- achieved Level 2 Diploma in Engineering Operations (competence)
- achieved Level 2 Certificate or Diploma in Engineering Operations (knowledge)
- satisfactory completion of the formal training plan agreed
- compiled a portfolio of evidence with a mapping document, which the professional discussion will be based on

Your training provider will send copies of these documents to EUIAS.

What is the EPA Specification?

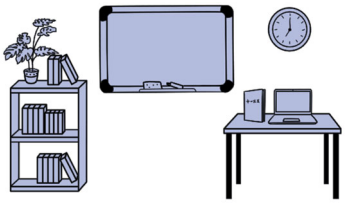
The end-point assessment specification provides details of the assessment methods used in your EPA, which:



- KSBs that are covered by each Assessment
- KSBs amplification and guidance

The Specification can be accessed via the link below:
https://www.euias.co.uk/wp-content/uploads/2023/02/Engineering-Operative-EPA-Specification-V1.0.pdf

Section 2: Apprentice EPA Journey



Let us Begin Your EPA Journey.

Find a quiet place and read on….

Engineering Operative is a core and options apprenticeship standard. You must be trained and assessed against the core and one of the following specialisms:

- Maintenance role
- Mechanical manufacturing engineering role
- Electrical and electronic engineering role
- Fabrication role

Your EPA journey consists of 3 elements:

- A training programme with on the job, off the job elements, typically 12 - 18 months
- Gateway meeting window
- End-point Assessment (EPA) typically 3 months

Your journey begins with the training program. Your employer and training provider are responsible for this part. This is where you will gain the required Knowledge, Skills and Behaviours (KSBs).

How will you be assessed in the end-point assessment?

You will be assessed on the following components, which **must** be taken in this order:

1. **Practical Skills Observation**
2. **Professional Discussion based on your portfolio of evidence**

It is important for you to keep a record of when your 2 components are scheduled. We suggest you use the ‘At a Glance’ tables on page 5.

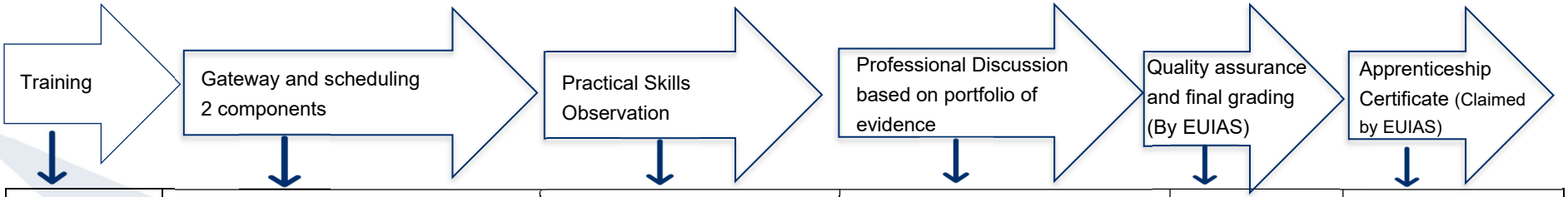
You must pass both components to achieve this qualification. For further guidance refer to Section 3 End-point Assessment Components.

Reasonable adjustments

A reasonable adjustment is any action that helps to reduce the effect of a disability or difficulty that places you at a substantial disadvantage during assessments. If this applies to you make sure you tell your training provider who can make an application for a reasonable adjustment to EUIAS on your behalf.

Your EPA Journey in a Diagram

The diagram below illustrates the order of your EPA **journey** from the day you register to your final certification:



Training	Gateway and scheduling 2 components	Practical Skills Observation	Professional Discussion based on portfolio of evidence	Quality assurance and final grading (By EUIAS)	Apprenticeship Certificate (Claimed by EUIAS)
Typically, 12 - 18 months	You have: • Attended a Gateway meeting with your employer/provider • Achieved Level 1 English and maths • Achieved Level 2 Diploma in Engineering Operations (competence) • Achieved Level 2 Certificate or Diploma in Engineering Operations (knowledge) • Compiled and submitted a portfolio of evidence, which your professional discussion will be based on. • Satisfactory completion of your formal training plan agreed	Total assessment time is 2 hours +/-10 minutes and this includes questioning. Under examination conditions. Face to face or remote as agreed. Assessed by: • Independent assessor See below for further details.*	40 minutes. The independent assessor has the discretion to increase the time of the professional discussion by up to 2 minutes, to allow you to complete your last answer. Under examination conditions. Face to face or remote as agreed and recorded using relevant technology. Assessed by: • Independent assessor See below for further details.*	Awarded Final Grading: Distinction, Pass or Fail.	ESFA will send your Certificate to your training provider or employer. Contact your training provider or employer if you do not receive your certificate.

*For further details refer to Section 3 in this Apprentice Guide or Section 2 of the Specification

Section 3: End-point Assessment Components

Now let us continue your journey through EPA. There are 2 components that you must pass to be awarded a certificate.

Component 1: Practical Skills Observation

Overview

A practical skills observation involves an independent assessor, appointed by EUIAS observing and questioning you in your workplace or in a suitable environment away from the workplace. You must be allowed to demonstrate the application of core and specific job role knowledge, skills and behaviours (KSBs) through naturally occurring evidence. Typically, this will be observed within one task but may be covered over two separate tasks if required. The independent assessor will ask you questions during or after the observation.

Step-by-Step Guide

The table below provides a step-by-step guide on how the practical skills observation will be carried out:

Structure of your practical observation	The total assessment time is 2 hours +/- 10 minutes and this includes questioning. • Breaks may be taken during the practical skills observation to allow you to move from one location to another and for meal/comfort breaks • The clock will be stopped. The assessment time is not reduced
Where will the assessment take place?	• In your normal place of work in a suitable area provided you can work unhindered OR • In a simulated environment that reflect the real working environment and realistic work situation
What knowledge, skills and	**Core Knowledge:**

behaviours (KSBs) do I have to demonstrate during the practical observation?	**K1** How to obtain the necessary job instructions, engineering drawings and specifications and how to interpret them **K3** Their individual roles and responsibilities within the organisation and the flexibility required to support the achievement of company targets **K4** Engineering operational practices, processes and procedures **K5** Potential problems that can occur within the engineering operations and how they can be avoided **Option 1: Maintenance Role Specialist Knowledge** **K6** Maintenance planning **K8** Specific safe working practices, maintenance procedures and environmental regulations that need to be observed **Option 2: Mechanical Manufacturing Role Specialist Knowledge** **K9** Specific equipment operating parameters **K11** Specific quality specifications for mechanical manufacturing operations **Option 3: Electrical and Electronic Engineering Role Specialist Knowledge** **K12** Cable types and where they should be used **K14** Specific safe working practices, isolation procedures and safe reinstating of equipment/system that need to be observed **Option 4: Fabrication Role Specialist Knowledge** **K15** Specific marking out and preparation techniques **K17** Specific safe working practices, isolation procedures and safe reinstating of equipment or system that need to be observed

Core Skills:

S1 Work safely at all times, complying with health and safety legislation, regulations, environmental compliance procedures and systems and other relevant guidelines

S5 Obtain and follow the correct documentation, specifications and work instructions in accordance with time constraints and the roles and responsibilities identified for the engineering activities, extracting the necessary data/information from specification and related documentation

S6 Select and use appropriate tools, equipment and materials to carry out the engineering operation

S8 Work efficiently and effectively at all times maintaining workplace organisation and minimising waste

Option 1: Maintenance Role Specialist Skills

S9 Carryout fault location on appropriate equipment using suitable maintenance diagnostic techniques

S10 Carry out maintenance activities in line with work instructions

Option 2: Mechanical Manufacturing Role Specialist Skills

S14 Mount and set the required work holding devices

S15 Produce individual components, sub-assemblies or completed assemblies using mechanical manufacturing techniques

Option 3: Electrical and Electronic Engineering Role Specialist Skills

S18 Assemble and test a range of electrical components e.g. component panels, isolator switches, fuses, circuit breakers, contactors, relays, rail mounted terminal blocks, etc.

S19 Assemble and test a range of electronic components e.g., resistors, capacitors, diodes, transistors, etc.

	Option 4: Fabrication Role Specialist Skills **S22** Join the materials using the appropriate methods and techniques **S23** Produce components which meet the specification requirements **Core Behaviours**: **B1 Personal responsibility and resilience** Comply with the health and safety guidance and procedures, be disciplined and have a responsible approach to risk, work diligently regardless of how much they are being supervised, accept responsibility for managing time and workload and stay motivated and committed when facing challenges **For amplification and guidance refer to the EO Specification link on page 9.**
What tasks will I have to cover?	• The practical task must allow you to undertake the activities required for a practical skills observation. For further details refer to 'Knowledge, Skills and Behaviours (KSBs) Coverage' in the specification, refer to link on page 9 .
What resources can I use?	Equipment and resources needed for the observation must be: • provided by your employer or training provider • a suitable premises • the plant, machinery, equipment and PPE required for the job • in good and safe working condition Relevant work instructions/manuals must be available for you to use in hard copy or electronically.
How many questions will I be asked?	The independent assessor: • will ask 3 - 6 open questions to assess the related underpinning knowledge • may ask questions to follow in order to seek clarification from you
Who will assess me?	An independent assessor, appointed by EUIAS.

Provisional Grading	The independent assessor will award a provisional grade. You must pass **ALL** the pass criteria in order to achieve a pass.
Overall grading for this component	Pass or Fail.

Practice Component 1: Practical Skills Observation

You should have an opportunity to have a practice practical skills observation which mirrors the real assessment. A practice practical would be set up for you using the structure in the table above by your employer or training provider.

Component 2: Professional Discussion based on Portfolio of Evidence

Overview

The professional discussion is based on your portfolio of evidence. It is to allow you to demonstrate how you have met the KSBs in order to carry out your occupational role as an Engineering Operative effectively and safely.

Step-by-Step Guide

The table below provides a step-by-step guide on how the professional discussion based on the portfolio of evidence will be carried out:

Who will assess me?	1 independent assessor, appointed by EUIAS. An employer representative may attend if requested to do so by EUIAS.
How will the technical interview be organised?	**Locations:** Your professional discussion will take place at your employer's premises or a suitable venue. **Time:** Your professional discussion will last 40 minutes. The independent assessor has the discretion to increase the time of the professional discussion by up to 2 minutes, to allow the apprentice to complete their last answer. **Your professional discussion will be:** • between you and the independent assessor • face to face or remote, as agreed • assessed and outcomes will be recorded by the assessor on official EUIAS professional discussion documents • recorded using the relevant technology such as Microsoft Teams or an audio recording device
What topics will I have to cover?	The professional discussion will focus on each knowledge, skills and behaviours listed in the grading criteria in Section 3 of the specification.

	For amplification and guidance refer to the EO Specification, link available on page 9.
How many questions will I be asked?	The independent assessor: • will ask 5 - 7 standardised open questions to assess your level of knowledge, skills and behaviours. • may ask follow-up questions in order to seek clarification from you • you may refer to your portfolio of evidence for examples during the professional discussion
Provisional Grading	The independent assessor will award a provisional grade. You must pass **ALL** the pass criteria in order to achieve a pass.
Overall grading for this component	Fail, Pass, or Distinction.

Portfolio of Evidence Requirements

The requirements are as follows:

Portfolio Mapping Document

You must map your portfolio of evidence to the KSBs covered by the professional discussion. You must include a mapping document at the front of your portfolio that clearly references the location of the evidence in your portfolio.

For further guidance on how to map refer to:

- Section below 'How do I organise my portfolio of evidence and map it to the mapping document?'
- EO Specification Section 5: Guidance on portfolio of evidence and apprentice mapping
- Apprentice Guide: Appendix B for the portfolio mapping document

How do I organise my portfolio of evidence and map it to the mapping document?

Step-by-Step Guide

You must include a portfolio mapping document and place it at the front of your portfolio, see table above for guidance and where to locate the portfolio mapping document.

Your portfolio is not assessed. It serves two purposes:

- The independent assessor reviews your portfolio before the professional discussion to help focus and contextualise their questions
- You should carefully prepare, index and map your portfolio as this will further support you during your professional discussion. Your organised portfolio will allow you with ease to refer to examples and discuss the evidence with the independent assessor

What should I include in my portfolio?

Quality vs quantity

You should be supported in selecting and mapping evidence for your portfolio by your employer or training provider.

We would advise you to choose the best pieces of evidence and map them to each KSB which will be covered during your professional discussion. To be confident of meeting the KSB, you should aim to have two/three pieces of evidence mapped to each KSB.

Examples of acceptable evidence:

- that is mapped against the relevant KSBs that will be assessed by the professional discussion. A template has been produced which you can use to collect and map your evidence. A copy of the template is included, see Appendix B ‘Portfolio Mapping Document’
- quality pieces selected that must be related to the time you are on your apprenticeship programme and demonstrate current practice
- demonstrations of work carried out over a period of time and include evidence of work carried out within the last three months of the on-programme period

- a minimum of 2 and no more than 3 activities accrued out by you that demonstrates the higher order knowledge, skills and behaviours
- where practicable this should include and clearly labelled:
    - photographs
    - images
    - diagrams
    - job descriptions and witness evidence/testimony
- situations that have been difficult and challenging, and how these have been overcome e.g. equipment breakdown which has results in a change in working practice while still adhering to company procedures
- any employer contributions must focus on direct observation of evidence (e.g. review/witness statements) of competence rather than opinions

The above is not a definitive list. You can include other relevant evidence sources.

You **must not** include in your portfolio any methods of self-assessment.

Evidence must be:

- produced by you (authentic)
- relevant to the standard (K, S or B) that it is mapped to
- produced during the time you were carrying out your on-programme training

What can I do to prepare for the professional discussion?

You should:

- be familiar with the structure of your portfolio
- know the KSBs covered by the professional discussion
- know where you have mapped your KSBs by referring to your portfolio mapping document
- ensure there is quality evidence to cover every KSB in the professional discussion
- practise mapping evidence and completing the evidence mapping grid
- know how you will be graded

The role of your employer or training provider

Employers or training providers are expected to support you in preparing your portfolio by:

- clarifying responsibility for supporting you in selecting and mapping evidence for your portfolio, including the role of employer coaches/mentors where applicable
- advising you on which pieces of evidence you should select to ensure that when it is looked at as a whole, your evidence provides coverage of all the required elements of the standard (KSBs) assessed in the professional discussion
- supporting the mapping of your evidence and production of your mapping document
- authenticating evidence you provide is valid
- signing off your portfolio
- submitting your portfolio to EUIAS as part of Gateway

Practice Component 2: Professional Discussion based on Portfolio of Evidence

You should have an opportunity to have a practice professional discussion which mirrors the real assessment. The practice professional discussion based on your portfolio of evidence would be set up using the structure in the table above by your employer or training provider.

Overall grading

Your apprenticeship will be graded distinction, pass or fail. The final grade will be determined by collective performance in the two assessment components.

Grades from individual assessment components will be combined in the following way to determine your overall EPA grade as a whole.

Practical Skills Observation	Professional Discussion	Grade Awarded
Fail	Fail	**Fail**
Pass	Fail	**Fail**
Fail	Pass	**Fail**
Pass	Pass	**Pass**
Pass	Distinction	**Distinction**

Section 4: Resits and retakes

If you fail one or more EPA components you can re-sit or a re-take the failed component at your employer's discretion. Your employer needs to agree that a re-sit or re-take is appropriate. A re-sit does not need further learning, but a re-take does. You should have a supportive action plan to prepare for your re-sit or re-take.

Your employer and EUIAS will agree the timescale for your re-sit or re-take. Failed EPA component(s) must be re-sat or re-taken within the 3 months end-point assessment period, otherwise the EPA will need to be re-sat or re-taken in full.

The maximum grade awarded for a re-sit or re-take for the practical skills observation will be graded pass or fail and a re-sit or re-take of the professional discussion will be graded pass, fail or distinction and combined to determine the EPA grade.

You will be observed doing different activities within the practical skills observation when taking a re-sit or re-take.

If you are unsuccessful, your employer will decide if you should re-apply for the EPA once additional training has taken place.

The EUIAS resit and re-take policy can be found at:
https://www.euias.co.uk/end-point-assessment/policies-and-fees/

Section 5: Appendices

Appendix A: Glossary

Appendix B: Portfolio Mapping Document

Appendix A: Glossary

Amplification – provides more detail on how individual knowledge, skills or behaviours statements should be interpreted. Where the KSB statements, themselves are deemed self-explanatory, no amplification is provided. Assessment may include questions on anything identified in the amplification

Behaviours –mindsets, attitudes or approaches needed for competence. Whilst these can be innate or instinctive, they can also be learnt. Behaviours tend to be very transferable. They may be more similar across occupations than knowledge and skills. For example, team worker, adaptable and professional#

Elements – are the knowledge, skills and behaviours and what is needed to competently undertake the duties required for an occupational standard

Guidance – is only provided where it is required to support interpretation of the KSB statements

Gateway – the stage of the apprenticeship where the apprentice, employer and trainer determine whether the apprentice is ready to undertake the End-Point Assessment

Independent Assessor – Will holistically assess the knowledge, skills and behaviours (KSBs) that you have been taught throughout the apprenticeship. Their role as an Independent Assessor would involve assessing 2 components (practical skills observation and professional discussion based on your portfolio of evidence)

Knowledge – the information, technical detail, and 'know-how' that someone needs to have and understand to successfully carry out the duties. Some knowledge will be occupation-specific, whereas some may be more generic

Options / Pathways – a specialist route within an occupational standard that builds on the occupational competence for a new entrant to the occupation

Skills – the practical application of knowledge needed to successfully undertake the duties. They are learnt through on and/or off-the-job training or experience

Standard – An occupational standard is a description of an occupation. It contains occupational profile, and describes KSBs needed for someone to be competent in the occupation's duties. The occupational standards are developed by employers for occupations that meet the Institute for Apprenticeships & Technical Education current criteria. For further details refer to: https://www.instituteforapprenticeships.org/apprenticeship-standards/engineering-operative-v1-2

Topic - is a collection of elements grouped into a theme e.g., Health and Safety

Appendix B: Portfolio Mapping Document

Introduction

Throughout the on-programme part of the apprenticeship, you will need to compile a portfolio of evidence to support the requirements of the technical interview. The evidence within the portfolio will need to be mapped by you to the KSB requirements using the mapping document below.

The independent assessor will use the mapping document to review the evidence in your portfolio in preparation for the professional discussion. The independent assessor will not assess your portfolio.

The portfolio mapping document below consists of the core requirements.

Your next steps

1. Complete all the details on the first page and include employer details of where relevant competencies from your experience at work was gained

2 Ensure each piece of evidence is signed off by your tutor/supervisor/mentor and lead provider (employer or training provider). You can use a number of different types of evidence to demonstrate your competence as described in Section 5 of the Specification – 'What to include in the portfolio?'. For further guidance, you must seek advice from your tutor/supervisor/mentor and lead provider

3 Map evidence to the criteria in the following pages using a referencing system indicating where the evidence for the criteria is located in your portfolio e.g., work based evidence Job 1 (J1) page 5 paragraph 2. This will allow the independent assessor to locate the section or specific piece of evidence being discussed with you during the technical interview

4 Place the portfolio mapping document at the front of the portfolio of evidence

5 Your lead provider must make arrangements for EUIAS to have access to your portfolio including the portfolio mapping document at Gateway

Portfolio Mapping Document

Mapping Sign off on Portfolio Completion:

Place this portfolio mapping document at the front of your portfolio of evidence.

Apprentice Full Name (Print)	Apprentice Signature	Training Provider (Company)	Training Provider Signatory	Date of Sign Off

Core Knowledge

Ref.	Apprenticeship Standard Criteria	PORTFOLIO EVIDENCE REFERENCE (Apprentice Input)		
		1	2	3
K2	Relevant statutory, quality, environmental compliance procedures/systems, organisational and health and safety regulations relating to engineering operations			
K4	Engineering operational practices, processes and procedures			
Assessor Comments:				

Option 1: Maintenance Role Specialist Knowledge

Ref.	Apprenticeship Standard Criteria	PORTFOLIO EVIDENCE REFERENCE (Apprentice Input)		
		1	**2**	**3**
K6	Maintenance planning			
K7	Diagnostic and fault finding techniques			
Assessor Comments:				

Option 2: Mechanical Manufacturing Role Specialist Knowledge

Ref.	Apprenticeship Standard Criteria	PORTFOLIO EVIDENCE REFERENCE (Apprentice Input)		
		1	2	3
K9	Specific equipment operating parameters			
K10	Mechanical manufacturing techniques			
Assessor Comments:				

Option 3: Electrical and Electronic Engineering Role Specialist Knowledge

Ref.	Apprenticeship Standard Criteria	PORTFOLIO EVIDENCE REFERENCE (Apprentice Input)		
		1	2	3
K12	Cable types and where they should be used			
K13	Electrical and electronic assembly and testing techniques			
Assessor Comments:				

Option 4: Fabrication Role Specialist Knowledge

Ref.	Apprenticeship Standard Criteria	PORTFOLIO EVIDENCE REFERENCE (Apprentice Input)		
		1	2	3
K15	Specific marking out and preparation techniques			
K16	Different fabrication and joining techniques			
Assessor Comments:				

Core Skills

Ref.	Apprenticeship Standard Criteria	PORTFOLIO EVIDENCE REFERENCE (Apprentice Input)		
		1	2	3
S1	Work safely at all times, complying with health and safety legislation, regulations, environmental compliance procedures and systems and other relevant guidelines			
S2	Identify and deal appropriately with any risks, hazards, hazardous situations and problems that may occur within the engineering environment within the limits of their responsibility			
S3	Demonstrate effective communication skills which include oral, written, electronic			
S4	Complete appropriate documentation accurately, efficiently and legibly using the correct terminology where required			
S6	Select and use appropriate tools, equipment and materials to carry out the engineering operation			
S7	Deal appropriately with any problems that may occur within the manufacturing environment within the limits of their responsibility			
Assessor Comments:				

Option 1: Maintenance Role Specialist Skills

Ref.	Apprenticeship Standard Criteria	PORTFOLIO EVIDENCE REFERENCE (Apprentice Input)		
		1	2	3
S9	Carry out fault location on appropriate equipment using suitable maintenance diagnostic techniques			
S10	Carry out maintenance activities in line with work instructions			
S11	Carry out tests on the maintained equipment in accordance with test schedule/defined test procedures			
S12	Follow appropriate completion activities and restore equipment to service by replacing or repairing components			
Assessor Comments:				

Option 2: Mechanical Manufacturing Engineering Role Specialist Skills

Ref.	Apprenticeship Standard Criteria	PORTFOLIO EVIDENCE REFERENCE (Apprentice Input)		
		1	2	3
S13	Plan the mechanical manufacturing operation before they start			
S14	Mount and set the required work holding devices			
S15	Produce individual components, sub-assemblies or completed assemblies using mechanical manufacturing techniques			
S16	Carry out quality checks during and after mechanical manufacturing operations			
Assessor Comments:				

Option 3: Electrical and Electronic Engineering Role Specialist Skills

Ref.	Apprenticeship Standard Criteria	PORTFOLIO EVIDENCE REFERENCE (Apprentice Input)		
		1	2	3
S17	Wire and terminate different types of cabling e.g. single core, multi core, screened, fire resistant, armoured, etc.			
S18	Assemble and test a range of electrical components e.g. component panels, isolator switches, fuses, circuit breakers, contactors, relays, rail mounted terminal blocks, etc.			
S19	Assemble and test a range of electronic components e.g. resistors, capacitors, diodes, transistors, etc.			
S20	Follow appropriate completion activities and restore equipment/system to service after the assembly and testing has been completed			
Assessor Comments:				

Option 4: Fabrication Role Specialist Skills

Ref.	Apprenticeship Standard Criteria	PORTFOLIO EVIDENCE REFERENCE (Apprentice Input)		
		1	2	3
S21	Shape the materials using the appropriate methods and techniques			
S22	Join the materials using the appropriate methods and techniques			
S23	Produce components which meet the specification requirements			
S24	Carryout quality checks during and after the fabrication activities			
Assessor Comments:				

Core Behaviours

Ref.	Apprenticeship Standard Criteria	PORTFOLIO EVIDENCE REFERENCE (Apprentice Input)		
		1	2	3
B1	**Personal responsibility and resilience –** Comply with the health and safety guidance and procedures, be disciplined and have a responsible approach to risk, work diligently regardless of how much they are being supervised, accept responsibility for managing time and workload and stay motivated and committed when facing challenges			
B2	**Working effectively in teams** - Integrate with the team, support other people, consider implications of their own actions on other people and the business whilst working effectively to get the task completed			
B3	**Effective communication and interpersonal skills** - An open and honest communicator; communicates clearly using appropriate methods, listen well to others and have a positive and respectful attitude			
B4	**Focus on quality and problem solving -** Follow instructions and guidance, demonstrate attention to detail, follow a logical approach to problem solving and seek opportunities to improve quality, speed and efficiency			
B5	**Continuous personal development** - Reflect on skills, knowledge and behaviours and seek opportunities to develop, adapt to different situations, environments or technologies and have a positive attitude to feedback and advice			
Assessor Comments:				