Institute for Apprenticeships
& Technical Education

End-point assessment plan for asset manager apprenticeship standard

Apprenticeship standard number	Apprenticeship standard level	Integrated end-point assessment
ST0861	4	No

Contents

Introduction and overview

This document sets out the requirements for end-point assessment (EPA) for the asset manager apprenticeship standard. It explains how EPA for this apprenticeship must operate.

It provides the EPA design requirements for end-point assessment organisations (EPAOs) for this apprenticeship standard. It will also be useful for apprentices undertaking this apprenticeship, their employers and training providers.

EPA must be conducted by an EPAO approved to deliver EPA for this apprenticeship standard. Each employer should select an approved EPAO from the Education & Skills Funding Agency's Register of end-point assessment organisations (RoEPAO).

Full-time apprentices will typically spend 18 months on-programme (before the gateway) working towards this occupational standard. All apprentices must spend a minimum of 12 months on-programme. All apprentices must spend a minimum of 20% of on-programme time undertaking off-the-job training.

Before starting EPA, an apprentice must meet the gateway requirements. For this apprenticeship they are:

- the employer must be content that the apprentice is working at or above the occupational standard
- apprentices must have achieved English and mathematics at Level 2[1]
- apprentices must have agreed the subject, title and scope for their EPA project with their EPAO
- apprentices must have compiled and submitted a portfolio of evidence to underpin the EPA interview

The EPAO must confirm that all required gateway evidence has been provided and accepted as meeting the gateway requirements. The EPAO is responsible for confirming gateway eligibility. Once this has been confirmed, the EPA period starts. This EPA should then be completed within an EPA period lasting typically for six months.

This EPA consists of two discrete assessment methods.

It will be possible to achieve the following grades in each end-point assessment method:

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[1] For those with an education, health and care plan or a legacy statement, the apprenticeship's English and Mathematics minimum requirement is Entry Level 3. British Sign Language (BSL) qualifications are an alternative to English qualifications for those who have BSL as their primary language.

Assessment method **1:** Project: business case and evidence, presentation with questions

- fail

- pass

- distinction

Assessment method **2:** Interview, underpinned by a portfolio of evidence

- fail

- pass

- distinction

Performance in these assessment methods will determine the overall apprenticeship standard grade of:

- fail

- pass

- merit

- distinction

EPA summary table

On-programme (typically 18 months)	Training to develop the knowledge, skills and behaviours (KSBs) of the occupational standard. Training towards English and mathematics Level 2[1], if required. Compiling a portfolio of evidence to underpin the interview.
End-point assessment gateway	The employer must be content that the apprentice is working at or above the level of the occupational standard. Achieved English and mathematics at Level 2[1], as a minimum. For the project: business case and evidence, presentation with questions, the project subject, title and scope must be agreed with the EPAO. For the interview, apprentices must have compiled and submitted a portfolio of evidence.
End-point assessment (typically 6 months)	Grades available for each assessment method End-point assessment method **1:** Project: business case and evidence, presentation with questions: • fail • pass • distinction End-point assessment method **2:** Interview, underpinned by a portfolio of evidence: • fail • pass • distinction Overall EPA and apprenticeship can be graded: • fail • pass • merit • distinction
Professional recognition	This apprenticeships standard has professional recognition. The Institute of Asset Management (IAM): • Associate level

Length of end-point assessment period

The EPA will be completed within an EPA period lasting typically for six months, starting when the EPAO has confirmed that all gateway requirements have been met.

Order of end-point assessment methods

The assessment methods can be delivered in any order.

The result of one assessment method does not need to be known before starting the next.

EPA gateway

The apprentice should only enter the gateway once the employer is content that the apprentice is working at or above the level of the occupational standard. In making this decision, the employer may take advice from the apprentice's training provider(s), but the decision must ultimately be made solely by the employer.

The EPAO determines when all other gateway requirements have been met, and the EPA period will only start once the EPAO has confirmed this.

In addition to the employer's confirmation that the apprentice is working at or above the level of the occupational standard, the apprentice must have completed the following gateway requirements prior to starting EPA:

- achieved English and Mathematics at Level 2
  For those with an education, health and care plan or a legacy statement, the apprenticeship's English and Mathematics minimum requirement is Entry Level 3. British Sign Language (BSL) qualifications are an alternative to English qualifications for those who have BSL as their primary language.

- for the project: business case and evidence, presentation with questions, the apprentice must have the subject, title and scope agreed by their EPAO. Apprentices must provide:
  - o a detailed milestone delivery plan, no longer than 16 weeks
  - o 500-word synopsis of their planned project

- for the interview, the apprentice must have compiled and submitted a portfolio of evidence – see requirements below

Portfolio of evidence requirements:
- apprentices must compile a portfolio of evidence during the on-programme period of the apprenticeship
- it must contain evidence related to the KSBs that will be assessed by the interview
- the portfolio of evidence will typically contain 10 discrete pieces of evidence
- evidence must be mapped against the KSBs assessed by the interview
- evidence may be used to demonstrate more than one KSB; a qualitative as opposed to quantitative approach is suggested
- evidence sources may include:
  - workplace documentation/records, for example workplace policies/procedures, records
  - witness statements
  - annotated photographs
  - video clips (maximum total duration 10 minutes); the apprentice must be in view and identifiable

  This is not a definitive list; other evidence sources are possible.
- it should not include reflective accounts or any methods of self-assessment
- any employer contributions should focus on direct observation of performance (for example witness statements) rather than opinions
- the evidence provided must be valid and attributable to the apprentice; the portfolio of evidence must contain a statement from the employer and apprentice confirming this
- the portfolio of evidence must be submitted to the EPAO at the gateway

The portfolio of evidence is not directly assessed. It underpins the interview and therefore should not be marked by the EPAO. EPAOs should review the portfolio of evidence in preparation for the interview but are not required to provide feedback after this review of the portfolio.

End-point assessment methods

The apprentice will be assessed against the KSBs assigned to the assessment methods outlined below, as shown in the mapping section of this EPA plan.

End-point assessment method 1: Project: business case and evidence, presentation with questions

Overview

This assessment method has two components:

1. business case and evidence
2. presentation with questions

A project involves the apprentice completing a significant and defined piece of work that has a real business benefit. The project must be undertaken after the apprentice has gone through the gateway.

The project should be designed to ensure that the apprentice's work meets the needs of the business, is relevant to their role and allows the relevant KSBs to be assessed for the EPA. Therefore, the project's subject, title and scope will be agreed between the employer and the EPAO. The employer will ensure it has a real business application and the EPAO will ensure it meets the requirements of the EPA (including suitable coverage of the KSBs assigned to this assessment method), as shown in the mapping of assessment methods. The EPAO must refer to the grading descriptors to ensure that projects are pitched appropriately.

The independent assessor will assess the components of this assessment method holistically.

The independent assessor will make all grading decisions.

The rationale for this assessment method is:

- it assesses the apprentice undertaking key activities of an asset manager, in normal working conditions, which will allow them to perform at their best
- it allows for a wide range of asset manager work to be demonstrated
- it provides a cost-effective assessment, as it minimises independent assessor time and makes use of the apprentice's employer's workplace, equipment, and resources, and should contribute to workplace production
- it is holistic

Project

The project must be based on addressing a 'real-life' asset management risk, problem or an issue that needs resolution. The project shall be capable of implementation and should aim to add value to the organisation.

The EPAO must sign off the project's subject, title and scope to confirm its suitability at gateway.

The project starts after the apprentice has gone through the gateway. The typical duration of the project should be equivalent to 120 hours work; the work does not have to be completed consecutively. The project must be submitted 16 weeks after the gateway.

The employer should ensure the apprentice has sufficient time and the necessary resources, within this period, to plan and undertake the project.

Whilst completing the project, the apprentice should be subject to the workplace's normal supervision arrangements.

The following activities should be undertaken as part of the project:

- ensures stakeholder requirements are taken into account
- consideration of assets within the system
- cost and benefit analysis, and options appraisal
- historical and future asset performance
- risk analysis, quantification, and management
- multi-criteria decision making
- detailed data collection and analysis

The project may relate to an asset class across a portfolio or a segment of assets by functional system.

Component 1. Business case and evidence

Delivery

The project outcome should be in the form of a business case and evidence.

The business case should include:

- an executive summary
- the outcomes of the project – recommendations and conclusions
- the benefits
- the barriers overcome
- the actions undertaken including the project timeline
- the stakeholder support and other resources required
- the long-term measures of success
- an appendix containing supporting evidence - see requirements below

Evidence should include:

- literature searches
- other evidence relating directly to the project, such as drawings, spreadsheets, financial reports, data reports, quality/compliance records, pictures, or links to video clips. This is not a definitive list, other evidence sources are possible

Evidence requirements:

- only evidence directly related to the project can be included
- video clips must be combined maximum total duration of 10 minutes
- the evidence provided must be valid and attributable to the apprentice

The business case has a maximum word limit of 5,000 words. A tolerance of plus or minus 10% is allowed at the apprentice's discretion. Evidence, references, and diagrams will not be included in this total. The business case must map, in an appendix, how the business case and evidence demonstrate the KSBs mapped to this assessment method. It is expected that some evidence may cover multiple KSBs.

The apprentice will conduct their project and submit the business case and supporting evidence to the EPAO after a maximum of 16 weeks from the gateway. The business case and evidence can be submitted in paper form or electronically. The presentation materials should also be submitted at the same time as the business case and evidence.

When the business case and evidence is submitted, the employer and the apprentice should provide a statement to verify the submitted work is that of the apprentice.

Project location

The business case production should take place in the apprentice's workplace or suitable location for example training provider's premises.

Component 2. Presentation with questions

Delivery

A presentation with questions involves an apprentice presenting to an independent assessor, followed by questioning from the independent assessor. It may be conducted either face-to-face or via online video conferencing. The presentation with questions must last for 45 minutes (15 minutes for the presentation and 30 minutes for the questioning) +10% at the independent assessor's discretion.

The presentation content must be completed after the gateway and submitted by the apprentice with their business case and evidence.

The presentation must focus on their project and cover the apprentice's recommendations for their business for the management of the asset group or system.

The purpose of the questioning is:

- to verify that the project is the apprentice's own work
- to seek clarification on the business case and evidence
- to assess the depth and breadth of knowledge, skills and behaviours
- to assess those KSBs that the apprentice did not have the opportunity to demonstrate during the project, although these should be kept to a minimum

The presentation will last for 15 minutes.

Apprentices must be given at least two-weeks' notice of the date and time of the presentation. The independent assessor will have a minimum of two weeks to review the business case, evidence and presentation prior to the presentation date.

To deliver the presentation, the apprentice must have access to audio-visual equipment (if required) that facilitates presentations. The apprentice needs to notify the EPAO at the submission of the presentation of any technical requirements for the presentation component.

The apprentice must be given the opportunity to prepare themselves prior to the start of the presentation (uploading presentation, etc), before the assessment starts.

Questions must be asked. The purpose of questioning is to assess the apprentice's level of competence against the grading descriptors. Those KSBs that the apprentice did not have the opportunity to demonstrate during the business case and supporting evidence can instead be covered by questioning, although these should be kept to a minimum.

The duration should be fixed at 30 minutes for the questioning +10% at the independent assessor's discretion. The independent assessor must use the full time available for questioning to allow the apprentice the opportunity to evidence occupational competence at the highest level available, unless the apprentice has already achieved the highest grade available.

The independent assessor must ask a minimum of four questions at the end of the presentation. They may ask follow-up questions where clarification is required.

Independent assessors must use their EPAO's question bank as a source for questioning and are expected to use their professional judgment to tailor those questions appropriately. Independent assessors are responsible for generating suitable follow-up questions in line with the EPAOs training and standardisation process.

KSBs met and answers to questions, must be recorded by the independent assessor.

The independent assessor will make all grading decisions.

The project must be subject to the EPAO's moderation processes; therefore, a moderator may be present during the presentation with questions.

Assessment location

EPAOs must ensure that the presentation and questioning elements are conducted in a suitable, controlled environment. The venue should be a quiet room, free from distraction and external influence.

The presentation with questions may take place in:

- employer's premises
- a suitable venue selected by the EPAO, such as the training provider's premises
- through a secure on-line video conference facility

Specific venue requirements that must be in place: audio-visual equipment (if required) that facilitates presentations.

Video conferencing can also be used to conduct the presentation but the EPAO must have processes in place to verify the identity of the apprentice and ensure the apprentice is not being aided.

Question and resource development

EPAOs will create and set open questions to assess KSBs mapped to this assessment method. Each EPAO must develop 'question banks' of sufficient size to prevent predictability and review them regularly (and at least once a year) to ensure the questions they contain are fit for purpose. Independent assessors must use the question bank as a source for questioning and are expected to use their professional judgment to tailor those questions appropriately. Independent assessors are responsible for generating suitable follow-up questions in line with the EPAO's training and standardisation process. The questions relating to underpinning KSBs must be varied, yet allow assessment of the relevant KSBs.

EPAOs must ensure that apprentices have a different set of questions in the case of re-sits/re-takes.

EPAOs will produce the following material to support this assessment method:

- Independent assessor assessment materials which include:
  - o Training materials
  - o Administration materials
  - o Moderation and standardisation materials
  - o Guidance materials
  - o Grading guidance
- Question bank
- Guidance documentation for the apprentice and employer

End-point assessment method 2: Interview, underpinned by a portfolio of evidence

Overview

This assessment method has one component.

An interview consists of an independent assessor asking an apprentice a series of questions to assess their competence against the KSBs. The independent assessor leads this process to obtain information from the apprentice to enable structured assessment decision-making to occur.

The rationale for this assessment method is:

- allows for assessment of KSBs that do not occur on predicable or regular basis and may not naturally be assessed as part of the project
- it allows for testing of responses where there are a range of potential answers depending on the context of the apprentice's workplace
- it is a cost effective, as apart from a venue it does not require additional resources

Delivery

The independent assessors will conduct and assess the interview.

The interview must last for 60 minutes. The independent assessor has the discretion to increase the time of the interview by up to 10% to allow the apprentice to complete their last answer.

The interview will have a minimum of 10 questions. During this method, the independent assessor must combine questions from the EPAO's question bank and those generated by themselves.

The purpose of the questions will be to assess the following topics:

- asset management concepts and systems
- asset management decision making
- asset management life cycle activities
- risk management
- resource management and collaboration

The interview will be conducted as follows.

EPAOs must make arrangements for the interview with the apprentice's employer.

Apprentices must be given at least two-weeks' notice of the date and time of the interview.

Questions should be open. Additional follow up questions are allowed, to seek clarification and to make a judgement against the grading descriptors.

Questions may be designed to seek evidence in relation to one or more topics.

The independent assessor should adapt their questions to the apprentice's individual circumstances following a review of their portfolio of evidence. The independent assessor should have a minimum of five working days to review the portfolio of evidence.

Apprentices must have access to their portfolio of evidence during the interview.

Apprentices can refer to and illustrate their answers with evidence from their portfolio of evidence, however the portfolio of evidence is not directly assessed.

Apprentices are expected to understand and use relevant occupational language that would be typical of a competent person in this occupation.

Evidence from the interview, underpinned by a portfolio of evidence, must be assessed using the grading criteria for this assessment method.

The interview must be subject to the EPAO's moderation processes; therefore, a moderator may be present during the interview.

KSBs met and answers to questions, must be recorded by the independent assessor.

The independent assessor will make all grading decisions.

Assessment location

The interview should take place in a quiet room, free from distractions and influence. Video conferencing can also be used to conduct the interview but the EPAO must have processes in place to verify the identity of the apprentice and ensure the apprentice is not being aided.

The interview can take place in any of the following:

- employer's premises
- a suitable venue selected by the EPAO, such as the training providers premises

Question and resource development

A question bank must be developed by EPAOs. The question bank must be of sufficient size to prevent predictability and the EPAO must review it regularly (at least once a year) to ensure that it, and its content, are fit for purpose. The questions relating to the underpinning KSBs, must be varied yet allow assessment of the relevant KSBs. Independent assessors must use the question bank as a source for questions and are expected to use their professional judgment to tailor those questions appropriately. Independent assessors are responsible for asking suitable questions in line with the EPAO's training and standardisation process.

EPAOs must ensure that apprentices have a different set of questions in the case of re-sits/re-takes.

EPAOs will produce the following material to support this assessment method:

- assessment specifications
- grading guidance
- question bank (for independent assessors only, not for wider distribution)
- assessment recording documentation
- guidance document for employers and apprentices on the process / timescales for the assessment as well as a description of the purpose
- guidance document for independent assessors on how to carry out the assessment

Overall EPA grading

All assessment methods are weighted equally in their contribution to the overall EPA grade.

Performance in the EPA will determine the apprenticeship grade of fail, pass, merit or distinction.

Independent assessors must individually grade each assessment method, according to the requirements set out in this plan.

EPAOs must combine the individual assessment method grades to determine the overall EPA grade.

Apprentices who fail one or more assessment method will be awarded an overall EPA 'fail'.

In order to gain an overall EPA 'pass', apprentices must achieve a pass in both assessment methods.

In order to achieve an overall EPA 'merit', apprentices must achieve a distinction in one of the assessment methods and a pass in the other assessment method.

In order to achieve an overall EPA 'distinction', apprentices must achieve a distinction in both assessment methods.

Grades from individual assessment methods should be combined in the following way to determine the grade of the EPA as a whole:

Assessment method 1 – Project: business case and evidence, presentation with questions	Assessment method 2 – Interview, underpinned by a portfolio of evidence	Overall grading
Fail	Any grade	Fail
Any grade	Fail	Fail
Pass	Pass	Pass
Pass	Distinction	Merit
Distinction	Pass	Merit
Distinction	Distinction	Distinction

Any grade = fail, pass, or distinction

Re-sits and re-takes

Apprentices who fail one or more assessment method will be offered the opportunity to take a re-sit or a re-take at the employer's discretion. The apprentice's employer will need to agree that either a re-sit or re-take is an appropriate course of action.

A re-sit does not require further learning, whereas a re-take does.

Apprentices should have a supportive action plan to prepare for a re-sit or a re-take.

An apprentice who fails one or more assessment method, and therefore the EPA in the first instance, will be required to re-sit or re-take.

If the apprentice fails the project assessment method, they may amend the business case and presentation in line with the independent assessor's feedback, rather than complete a new project.

The timescale for a re-sit/re-take is agreed between the employer and EPAO. A re-sit is typically taken within two months of the EPA outcome notification. The timescale for a re-take is dependent on how much re-training is required and is typically taken within four months of the EPA outcome notification.

All assessment methods must be taken within a six-month period, otherwise the entire EPA will need to be re-sat/re-taken.

Re-sits and re-takes are not offered to apprentices wishing to move from pass to a higher grade.

Where any assessment method has to be re-sat or re-taken, the apprentice will be awarded a maximum EPA grade of pass unless the EPAO determines there are exceptional circumstances requiring a re-sit or re-take.

Roles and responsibilities

Role	Responsibility
Apprentice	As a minimum, apprentices should: • participate in and complete on-programme training to meet the KSBs as outlined in the occupational standard for a minimum of 12 months • undertake 20% off-the-job training as arranged by the employer and training provider • understand the purpose and importance of EPA • undertake the EPA including meeting all gateway requirements
Employer	As a minimum, employers should: • work with the training provider (where applicable) to support the apprentice in the workplace to provide the opportunities to develop the KSBs • arrange and support a minimum of 20% off-the-job training to be undertaken by the apprentice • decide when the apprentice is working at or above the occupational standard and so is ready for EPA • select the EPAO • ensure that all supporting evidence required at the gateway is submitted in accordance with this EPA plan • remain independent from the delivery of the EPA • confirm arrangements with the EPAO for the EPA (who, when, where) in a timely manner (including providing access to any employer specific documentations as required, for example company policies) • ensure that the EPA is scheduled with the EPAO for a date and time which allow appropriate opportunity for the KSBs to be met • ensure the apprentice is well prepared for the EPA • ensure the apprentice is given sufficient time away from regular duties to prepare for and complete any post-gateway elements of the EPA, and that any required supervision during this time (as stated within this EPA plan) is in place • where the apprentice is assessed in the workplace, ensure that the apprentice has access to the resources used on a daily basis

EPAO	As a minimum, EPAOs should:
	- agree the EPA price - understand the occupational standard - appoint administrators (and invigilators where required) to administer the EPA as appropriate - provide training for independent assessors in terms of good assessment practice, operating the assessment tools and grading - provide adequate information, advice and guidance documentation to enable apprentices, employers and training providers to prepare for the EPA - arrange for the EPA to take place, in consultation with the employer - deliver the EPA as outlined in this EPA plan in a timely manner - where the apprentice is not assessed in the workplace, ensure that the apprentice has access to required resources and liaise with the employer to agree this if necessary - use appropriate assessment recording documentation to ensure a clear and auditable process is in place for providing assessment decisions and feedback to all relevant stakeholders - have no direct connection with the apprentice, their employer or training provider. In all instances including when the EPAO is the training provider (i.e. HEI) there must be no conflict of interest - have policies and procedures for internal quality assurance (IQA), and maintain records of regular and robust IQA activity and moderation for external quality assurance (EQA) purposes - conform to the requirements of the nominated external quality assurance provider (EQAP) - conform to the requirements of the Register of End-Point Assessment Organisations (RoEPAO) - deliver induction training for independent assessors, and for invigilators and markers where used - undertake standardisation activity on this apprenticeship standard for all independent assessors before they conduct an EPA for the first time, if the EPA is updated and periodically as appropriate (a minimum of annually) - manage invigilation of apprentices in order to maintain security of the assessment in line with their malpractice policy - verify the identity of the apprentice being assessed - use language in the development and delivery of the EPA that is appropriate to the level of the occupational standard

	• request certification via the Apprenticeship Service upon successful achievement of the EPA
Independent assessor	As a minimum, an independent assessor should: • have the competence to assess the apprentice at this level and hold any required qualifications and experience in line with the requirements of the independent assessor as detailed in the IQA section of this EPA plan • understand the occupational standard and the requirements of this EPA • have, maintain and be able to evidence up to date knowledge and expertise of the subject matter • deliver the end-point assessment in-line with the EPA plan • comply with the IQA requirements of the EPAO • have no direct connection or conflict of interest with the apprentice, their employer or training provider; in all instances including when the EPAO is the training provider (i.e. HEI) • attend induction training • attend standardisation events when they begin working for the EPAO, before they conduct an EPA for the first time and a minimum of annually on this apprenticeship standard • assess each assessment method, as determined by the EPA plan, and without extending the EPA unnecessarily • assess against the KSBs assigned to each assessment method, as shown in the mapping of assessment methods and as determined by the EPAO, and without extending the EPA unnecessarily • make all grading decisions • record and report all assessment outcome decisions, for each apprentice, following instructions and assessment recording documentation provided by the EPAO in a timely manner • use language in the development and delivery of the EPA that is appropriate to the level of the occupational standard
Training provider	As a minimum, the training provider should: • work with the employer and support the apprentice during the off-the-job training to provide the opportunities to develop the knowledge, skills and behaviours as listed in the occupational standard • conduct training covering any knowledge, skill or behaviour requirement agreed as part of the Commitment Statement (often known as the Individual Learning Plan).

	- monitor apprentices progress during any training provider led on-programme learning - advise the employer, upon request, on the apprentice's readiness for EPA - remain independent from delivery of the EPA. Where the training provider is the EPA (i.e. HEI) there must be procedures in place to mitigate against any conflict of interest

Reasonable adjustments

The EPAO must have in place clear and fair arrangements for making reasonable adjustments to the assessment methods for the EPA for this apprenticeship standard. This should include how an apprentice qualifies for reasonable adjustments and what reasonable adjustments will be made. The adjustments must maintain the validity, reliability and integrity of the assessment methods outlined in this EPA plan.

Internal Quality Assurance (IQA)

Internal quality assurance refers to the strategies, policies and procedures that EPA organisations must have in place to ensure valid, consistent and reliable end-point assessment decisions. EPAOs for this EPA must adhere to all requirements within the Roles and Responsibilities section and:

- have effective and rigorous quality assurance systems and procedures that ensure fair, reliable and consistent assessment across employers, places, times and independent assessors
- appoint independent assessors who are competent to deliver the end-point assessment and who:
  - have recent relevant experience of the occupation/sector to at least the same occupational level of the apprenticeship standard gained in the last three years or significant experience of the occupation/sector
  - relevant professional recognition at a minimum of level 6. For example, Chartered engineer
- operate induction training for independent assessors and any other personnel involved in the delivery and or/assessment of the EPA (e.g. markers and invigilators)
- provide training for independent assessors in terms of good assessment practice, operating the assessment tools and grading
- where appropriate, provide ongoing training for markers and invigilators
- provide standardisation activity for this apprenticeship standard for all independent assessors:
  - before they conduct an EPA for the first time
  - if the EPA is updated
  - periodically as appropriate (a minimum of annually)
- conduct effective moderation of assessment decisions and grades
- conduct appeals where required, according to the EPAO's appeals procedure, reviewing and making final decisions on assessment decisions and grades

Value for money

Affordability of the EPA will be aided by using at least some of the following practices:

- completing applicable assessment methods online (i.e. computer-based assessment)
- utilising digital remote platforms to conduct applicable assessment methods
- using the employer's premises
- conducting assessment methods on the same day

It is anticipated that the project presentation with questions and interview will be conducted on the same day to reduce costs however, this is not a requirement.

Professional recognition

This apprenticeships standard has professional recognition.

The Institute of Asset Management (IAM):

- Associate level

Mapping of knowledge, skills and behaviours (KSBs)

Assessment method 1. Project: business case and evidence, presentation with questions

Knowledge
K3. Impact of organisational context on asset management: regulatory frameworks, stakeholders, governance and asset management policy, objectives strategy and plan.
K5. Asset systems; effect of each asset on the system and impact of external factors.
K9. Optioneering, cost benefit analysis; asset management multicriteria decision making (cost, risk, performance, sustainability, compliance and intangibles).
K10. Creative thinking and problem-solving techniques.
K12. Performance monitoring of asset life cycle activities.
K13. Asset and asset systems; health, condition, and performance assessment methods.
K14. Project management, resource and time management techniques.
K16. Risk management and its application to asset management: risk assessment, quantification, mitigation and impact.
K17. Techniques to assess asset risk; causes and effects: Failure Mode Event/Effects Critically Analysis (FMEA/FMECA), Root cause analysis and Bow Tie analysis.
K18. Legislation: Health and Safety at Work, Environmental Protection.
K22. Communication techniques including plain English – verbal, written and presentation.
K24. Data analysis and interpretation techniques. Data presentation techniques (charts, diagrams and tables).
K25. Information technology (IT) systems and processes asset registers, work management systems, word processing, spreadsheets, email, presentation.
K26. Information and data security/management requirements; cyber security, General Data Protection Regulations (GDPR), data protection and integrity.

Skills
S1. Identify the organisation's context and constraints that affect asset management.
S3. Estimate and calculate Life Cycle Cost (LCC) or Total Cost of Ownership (TCO) for assets/asset systems.
S4. Use techniques to identify interventions for assets/asset system and estimate benefits.
S5. Apply multi criteria decision making methods to proposed intervention options.
S6. Select and use decision support tools to make asset management recommendations.
S7. Develop asset life-cycle plans including performance monitoring and business case.
S9. Plan and manage projects.
S10. Assess asset health, condition, and performance.
S13. Assess and quantify asset, asset system and asset management activity-related risks; identify mitigation options.
S14. Comply with legislation, asset management standards and company policies.
S15. Use information technology systems and processes: for example, asset registers, work management systems, word processing, spreadsheets, email, presentation.
S16. Collate and analyse asset/asset system data and information.
S17. Interpret and present data - qualitative and/or quantitative.
S18. Communicate with colleagues and stakeholders – verbal, written and presentation.

Behaviours
B1. Committed to compliance with legislation, asset management standards and company policies.
B2. Focusses on value and outcomes in alignment with organisational objectives and stakeholders' expectations.
B6. Reliable and self-motivated, takes responsibility for work and seeks to deliver against personal objectives.

Assessment method 2. Interview, underpinned by a portfolio of evidence

Knowledge
K1. Asset management standards: ISO55000, British Standard Institute (BSI) Publicly Available Specification (PAS) 55.
K2. Management systems for asset management: policy, strategy, objectives, plans and continual improvement.
K4. Different types of assets and classification approaches; hierarchy, function and value.
K6. Asset/system service and performance requirements; service level.
K7. Continuous improvement techniques.
K8. Asset costing and valuation techniques; cost estimation (maintenance, operation, renewal), depreciation, whole life costing, and social, environmental, safety and reputational cost.
K11. Asset life cycle activities: demand analysis and future requirements, creation and acquisition or rationalisation, operation, resilience, redundancy, shutdown, obsolescence, outage management, future asset capability.
K15. Types of asset maintenance: preventive, predictive, corrective.
K19. Sustainable development; impact on environment of asset management and asset management activities.
K20. Supply chain; types of suppliers, their role, and contractual relationships.
K21. Collaborative working techniques: personality types, influencing, negotiating, networking, and equality, diversity and inclusion.
K23. Business ethics including corporate governance, bribery, discrimination, socially responsible organisations.

Skills
S2. Identify asset service and performance requirements.
S8. Classify assets, asset systems, life cycle stages and activities.
S11. Select and apply fault finding technique(s) to identify causes and effects of assets/asset system failures.
S12. Apply continuous improvement techniques.

Behaviours
B3. Collaborates, within teams and across disciplines.
B4. Shares knowledge and good practice, gives and receives feedback, provides help and support.
B5. Adaptable for example, seeks new ways of doing things.
B7. Committed to continued professional development.

Grading descriptors

End-point assessment method 1: Project: business case and supporting evidence and presentation with questions

Theme KSBs	Pass, apprentices must demonstrate all the pass descriptors to pass	Distinction, in addition to the pass criteria, apprentices must demonstrate six out of nine of the following distinction descriptors to get a distinction
Asset management concepts and systems **K3 K5 K18** **S1 S14** **B1 B2**	Identifies and describes the impact of organisational context/constraints on asset management: regulatory frameworks, stakeholders, governance and asset management policy, objectives strategy and plan. (K3, S1) Explains the effect of each asset in the system and describes the impact of external factors. (K5) Shows compliance with asset management standards, relevant organisational policies and current legislation. (K18, S14, B1) Establishes a focus on value and outcome within the project and reflects organisational objectives and stakeholder expectations. (B2)	Explains why it is necessary to comply with legislation, policies and asset management standards and justifies the approaches taken. (K18, S14, B1)
Asset management decision making **K9 K10** **S4 S5 S6**	Explains optioneering, cost benefit analysis and asset management multicriteria decision making. (K9)	Evaluates and justifies the selected decision support tools used to make asset management recommendations (K9, K10, S6)

	Demonstrates the use of creative thinking and problem-solving techniques to identify interventions for assets/asset system and estimate benefits. (K10, S4)	
	Demonstrates the application of multi-criteria decision-making methods to proposed intervention options. (S5)	
	Selects and applies decision support tools to make asset management recommendations. (S6)	
Asset life cycle **K12 K13** **S3 S7 S10**	Develops an asset life-cycle plan including health, performance, condition, performance monitoring and business case, estimating and calculating LCC or TCO for assets/asset systems. (K12, K13, S3, S7, S10)	Reviews the life cycle plan and justifies the/any recommendations made. (K12, S7)
Risk management **K16 K17** **S13**	Identifies and applies techniques to assess and quantify asset, asset system and asset management activity related risks, identifying mitigation options. (K16, K17, S13)	Compares and contrasts mitigation options and justifies recommendations made. (S13)
Project management **K14** **S9** **B6**	Applies project management, resource and time management to plan and manage the project, taking responsibility for work and seeking to deliver against objectives demonstrating reliability and self-motivation. (K14, S9, B6)	Evaluates their choice of project management techniques and justifies resource and time management. (K14, S9)

Communication **K22** **S18**	Identifies and applies selected communication techniques for the audience. (K22, S18)	Justifies selected techniques and methods of communication. (K22, S18)
Data analysis and presentation **K24** **S16 S17**	Collates qualitative and quantitative asset/asset system data and information, identifies and applies data analysis, presentation and interpretation techniques. (K24, S16, S17)	Evaluates and justifies their choice of data analysis, presentation and interpretation techniques. (K24, S16, S17)
Information management **K25 K26** **S15**	Identifies and uses IT systems and processes to complete their asset management project, working within the security/management requirements set out nationally and/or by their organisation. (K25, K26, S15)	Justifies choices made for IT systems and demonstrates use of advanced features of software for the projects benefit, such as improved organisation performance, ease of use. (K25, S15)

Fail – Apprentices will fail where they do not demonstrate all the pass descriptors

End-point assessment method 2: Interview, underpinned by a portfolio of evidence

Theme KSBs	Pass **Apprentices must demonstrate all the pass descriptors**	Distinction **Apprentices must demonstrate all the pass descriptors, plus a minimum of four out of six of the following distinction descriptors**
Asset management concepts and systems **K1 K2 K6 K7** **S12** **B5**	Outlines their approach to working that demonstrates adaptability in seeking new ways of working and how they apply continuous improvement techniques. (K7, S12, B5) Explains the management systems for asset management including standards, policy, strategy, objectives and plans, and details the service levels for asset/ system service and performance. (K1, K2, K6)	Evaluates how standards and management systems impact on the development of asset/system service and performance. (K1, K2, K6) Justifies continuous improvement techniques used, identifying strengths and limitations. (K7, S12)
Asset management decision making **K8 K19**	Defines asset costing and valuation techniques including cost estimation, depreciation, whole life costing and social, environmental, safety and reputational cost. Explains the impact to the environment of asset management in relation to sustainable development (K8, K19)	Evaluates the need to consider societal benefits in decision making (K8)
Asset management life cycle activities **K4 K11 K15** **S2 S8**	Identifies and applies different types of asset and classification approaches to classify assets, asset systems, lift cycle stages and activities. (K4, S8)	Critically analyses the classification of assets for asset management life cycle activities' (K4, S8)

	Describes asset lifestyle activities and types of asset maintenance. (K11, K15) Demonstrates the identification of asset service and performance requirements. (S2)	
Risk management **S11**	Identifies causes and effects of assets/asset system failures by selecting and applying fault finding techniques. (S11)	Justifies chosen fault-finding technique over others. (S11)
Resource management and collaboration **K20 K21 K23** **B3 B4**	Explains their organisations asset management supply chain: types of suppliers, their role and contractual relationships. (K20) Explains how business ethics play a role in asset management (K23) Applies selected collaborative working techniques within teams and across disciplines. (K21, B3) Describes how they share knowledge and good practice, give and receive feedback and provides help and support. (B4)	Evaluates the role business ethics plays in asset management. (K23)
Continued professional development **(B7)**	Establishes an approach to CPD where commitment is demonstrated/reflected in their personal log of activities. (B7)	

Fail – Apprentices will fail where they do not demonstrate all the pass descriptors