Draft end-point assessment plan for the Broadcast and media systems technical operator apprenticeship

Apprenticeship reference number	Level of this end-point assessment (EPA)	Integrati
ST0424	3	None

Contents

Key Fields

Introduction and overview

This document explains the requirements for end-point assessment (EPA) for the broadcast and media systems technical operator apprenticeship. End-point assessment organisations (EPAOs) must follow this when designing and delivering the EPA.

Broadcast and media systems technical operator apprentices, their employers and training providers should read this document.

A full-time broadcast and media systems technical operator apprentice typically spends 22 months on-programme. The apprentice must spend at least 12 months on-programme and complete the required amount of off-the-job training in line with the apprenticeship funding rules.

The EPA should be completed within an EPA period lasting typically 2 months.

The apprentice must complete their training and meet the gateway requirements before starting their EPA. The EPA will assess occupational competence.

An approved EPAO must conduct the EPA for this apprenticeship. Employers must work with the training provider to select an approved EPAO from the apprenticeship providers and assessment register (APAR).

This EPA has 2 assessment methods.

The grades available for each assessment method are below.

Assessment method 1 - professional discussion underpinned by a portfolio of evidence:

fail

pass

distinction

Assessment method 2 - presentation and questions:

fail

pass

distinction

The result from each assessment method is combined to decide the overall apprenticeship grade. The following grades are available for the apprenticeship:

fail

pass

merit

distinction

Change

EPA summary table

On-programme - typically 22 months	The apprentice must: complete training to develop the knowledge, skills and behaviours (KSBs) outlined in this apprenticeship's standard complete training towards English and mathematics qualifications in line with the apprenticeship funding rules compile a portfolio of evidence
End-point assessment gateway	The apprentice's employer must be content that the apprentice is occupationally competent. The apprentice must: confirm they are ready to take the EPA have achieved English and mathematics qualifications in line with the apprenticeship funding rules For the professional discussion underpinned by a portfolio of evidence, the apprentice must submit a portfolio of evidence. Gateway evidence must be submitted to the EPAO, along with any organisation specific policies and procedures requested by the EPAO.
End-point assessment - typically 2 months	**The grades available for each assessment method are below** Professional discussion underpinned by a portfolio of evidence: fail pass distinction Presentation and questions: fail pass distinction **Overall EPA and apprenticeship can be graded:** fail pass

	merit
	distinction
Re-sits and re-takes	The details for re-sits and re-takes are below:
	re-take and re-sit grade cap: pass
	re-sit timeframe: typically 2 months
	re-take timeframe: typically 3 months

Show summary change sections

Duration of end-point assessment period

[Edit duration of end-point assessment period form](#)

The EPA is taken in the EPA period. The EPA period starts when the EPAO confirms the gateway requirements have been met and is typically 2 months.

The EPAO should confirm the gateway requirements have been met and start the EPA as quickly as possible.

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EPA gateway

[Edit epa gateway form](#)

The apprentice's employer must be content that the apprentice is occupationally competent. That is, they are deemed to be working at or above the level set out in the apprenticeship standard and ready to undertake the EPA. The employer may take advice from the apprentice's training provider, but the employer must make the decision. The apprentice will then enter the gateway.

The apprentice must meet the gateway requirements before starting their EPA.

They must:

confirm they are ready to take the EPA

have achieved English and mathematics qualifications in line with the apprenticeship funding rules

submit a portfolio of evidence for the professional discussion underpinned by a portfolio of evidence

Portfolio of evidence requirements:

The apprentice must compile a portfolio of evidence during the on-programme period of the apprenticeship. It should only contain evidence related to the KSBs that will be assessed by the professional discussion . It will typically contain 15 discrete pieces of evidence. Evidence must be mapped against the KSBs. 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 and records, for example:

workplace policies and procedures - annotated and or utilised

workflow diagrams

site maps and or plans

stakeholder maps

witness statements

annotated photographs

video clips with a maximum total duration 10 minutes; the apprentice must be in view and identifiable

This is not a definitive list; other evidence sources can be included.

The portfolio of evidence 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 should be valid and attributable to the apprentice; the portfolio of evidence should contain a statement from the employer and apprentice confirming this.

The EPAO should not assess the portfolio of evidence directly as it underpins the discussion . The independent assessor should review the portfolio of evidence to prepare questions for the discussion. They are not required to provide feedback after this review.

Gateway evidence must be submitted to the EPAO, along with any organisation specific policies and procedures requested by the EPAO.

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Order of assessment methods

[Edit order of assessment methods form](#)

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.

Change

Professional discussion underpinned by a portfolio of evidence

[Edit professional discussion underpinned by a portfolio of evidence form](#)

Overview

In the professional discussion, an independent assessor and apprentice have a formal two-way conversation. It gives the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method.

Rationale

This assessment method is being used because:

it assesses KSBs holistically and objectively

it allows for the assessment of KSBs that do not occur on a predictable or regular basis

it allows for assessment of responses where there are a range of potential answers

it can be conducted remotely, potentially reducing cost

Delivery

The professional discussion must be structured to give the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method to the highest available grade.

An independent assessor must conduct and assess the professional discussion.

The purpose of the independent assessor's questions will be to assess the apprentice's competence against the following themes:

Problem solving

Broadcast communication systems and networks

Industry awareness

The EPAO must give an apprentice 14 days' notice of the professional discussion.

The independent assessor must have at least 2 weeks to review the supporting documentation.

The apprentice must have access to their portfolio of evidence during the professional discussion.

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

The professional discussion must last for 60 minutes. The independent assessor can increase the time of the professional discussion by up to 10%. This time is to allow the apprentice to respond to a question if necessary.

The independent assessor must ask at least 6 questions. The independent assessor must use the questions from the EPAO's question bank or create their own questions in line with the EPAO's training. Follow-up questions are allowed where clarification is required.

The apprentice may choose to end the assessment method early. The apprentice must be confident they have demonstrated competence against the assessment requirements for the assessment method. The independent assessor or EPAO must ensure the apprentice is fully aware of all assessment requirements. The independent assessor or EPAO cannot suggest or choose to end the assessment methods early, unless in an emergency. The EPAO is responsible for ensuring the apprentice understands the implications of ending an assessment early if they choose to do so. The independent assessor may suggest the assessment continues. The independent assessor must document the apprentice's request to end the assessment early.

The independent assessor must make the grading decision.

The independent assessor must keep accurate records of the assessment. They must record:

the apprentice's answers to questions

the KSBs demonstrated in answers to questions

the grade achieved

Assessment location

The professional discussion must take place in a suitable venue selected by the EPAO for example, the EPAO's or employer's premises.

The professional discussion should take place in a quiet room, free from distractions and influence.

Question and resource development

The EPAO must develop a purpose-built assessment specification and question bank. It is recommended this is done in consultation with employers of this occupation. The EPAO must maintain the security and confidentiality of EPA materials when consulting with employers. The assessment specification and question bank must be reviewed at least once a year to ensure they remain fit-for-purpose.

The assessment specification must be relevant to the occupation and demonstrate how to assess the KSBs mapped to this assessment method. The EPAO must ensure that questions are refined and developed to a high standard. The questions must be unpredictable. A question bank of sufficient size will support this.

The EPAO must ensure that the apprentice has a different set of questions in the case of re-sits or re-takes.

The EPAO must produce the following materials to support the professional discussion underpinned by a portfolio of evidence:

independent assessor assessment materials which include:

      training materials

      administration materials

      moderation and standardisation materials

      guidance materials

      grading guidance

      question bank

EPA guidance for the apprentice and the employer

The EPAO must ensure that the EPA materials are subject to quality assurance procedures including standardisation and moderation.

Change

Presentation and questions

[Edit presentation and questions form](#)

Overview

In the presentation with questions, the apprentice delivers a presentation to an independent assessor on a set subject. The employer, apprentice and EPAO should review and agree the production or productions selected by the apprentice to ensure that the KSBs assigned to this assessment method can be demonstrated. The independent assessor must ask questions after

the presentation. It gives the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method.

Rationale

This assessment method is being used because:

it assesses KSBs that cannot be directly observed in practice

it allows the apprentice to present information in a style and format that showcases their occupational competence against the mapped KSBs

it allows for the presentation of evidence and testing of responses where there are a range of potential answers

it can be conducted remotely, potentially reducing cost.

Delivery

The presentation and questions must be structured to give the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method to the highest available grade.

An independent assessor must conduct and assess the presentation with questions.

The presentation must cover:

the workflow for the selected broadcast or broadcasts.

operational requirements and protocols for the selected broadcast or broadcasts

the equipment used including the purpose, benefits limitations and risks

the impact of sustainability targets on the broadcast or broadcasts

a walkthrough of technical operations

health and safety and compliance requirements and implementation for the selected broadcast or broadcasts

stakeholder engagement and monitoring processes.

conclusions.

The presentation may include examples of how the above was achieved through the use of workflow diagrams and recording information, illustrative images, stakeholder engagement plans and logs.

The purpose of the presentation is to allow the apprentice to demonstrate their competence against the grading descriptors.

The apprentice must submit any presentation materials to the EPAO by the end of week 4 of the EPA period. The apprentice must notify the EPAO, at that point, of any technical requirements for the presentation.

During the presentation, the apprentice must have access to:

audio-visual presentation equipment

computer

The independent assessor must have at least 2 weeks to review any presentation materials, before the presentation is delivered by the apprentice, to allow them to prepare questions. The EPAO must give the apprentice at least 14 days' notice of the presentation assessment.

The independent assessor must ask questions after the presentation.

The purpose of the questions is:

to seek clarification where required

to assess the level of competence against the grading descriptors

The presentation and questions must last 90 minutes. This will typically include a presentation of 30 minutes and questioning lasting 60 minutes. The independent assessor must use the full time available for questioning. The independent assessor can increase the total time of the presentation and questioning by up to 10%. This time is to allow the apprentice to complete their last point or respond to a question if necessary.

The independent assessor must ask at least 4 questions. They must use the questions from the EPAO's question bank or create their own questions in line with the EPAO's training. Follow up questions are allowed where clarification is required.

The apprentice may choose to end the assessment method early. The apprentice must be confident they have demonstrated competence against the assessment requirements for the assessment method. The independent assessor or EPAO must ensure the apprentice is fully aware of all assessment requirements. The independent assessor or EPAO cannot suggest or choose to end the assessment methods early, unless in an emergency. The EPAO is responsible for ensuring the apprentice understands the implications of ending an assessment early if they choose to do so. The independent assessor may suggest the assessment continues. The independent assessor must document the apprentice's request to end the assessment early.

The independent assessor must make the grading decision. The independent assessor must assess the presentation and answers to questions holistically when deciding the grade.

The independent assessor must keep accurate records of the assessment. They must record:

the KSBs demonstrated

the apprentice's answers to questions

the KSBs demonstrated in answers to questions

the grade achieved

Assessment location

The presentation with questions must take place in a suitable venue selected by the EPAO for example, the EPAO's or employer's premises. The presentation with questions should take place in a quiet room, free from distractions and influence.

Question and resource development

The EPAO must develop a purpose-built assessment specification and question bank. It is recommended this is done in consultation with employers of this occupation. The EPAO must maintain the security and confidentiality of EPA materials when consulting with employers. The

assessment specification and question bank must be reviewed at least once a year to ensure they remain fit-for-purpose.

The assessment specification must be relevant to the occupation and demonstrate how to assess the KSBs mapped to this assessment method. The EPAO must ensure that questions are refined and developed to a high standard. The questions must be unpredictable. A question bank of sufficient size will support this.

The EPAO must ensure that the apprentice has a different set of questions in the case of re-sits or re-takes.

The EPAO must produce the following materials to support the presentation and questions:

independent assessor EPA materials which include:

> training materials
>
> administration materials
>
> moderation and standardisation materials
>
> guidance materials
>
> grading guidance
>
> question bank

EPA guidance for the apprentice and the employer

The EPAO must ensure that the EPA materials are subject to quality assurance procedures including standardisation and moderation.

Change

Grading

[Edit add grade descriptor formEdit mapping of ksbs to grade themes formEdit available grades form](#)

Professional discussion underpinned by a portfolio of evidence

Fail - does not meet pass criteria

Theme KSBs	Pass Apprentices must demonstrate all of the pass descriptors	Distinction Apprentices must demonstrate all of the pass descriptors and all of the distinction descriptors
Industry awareness K1 K5 K12 K24 S5 S12 S21 B3		
Broadcast communications and systems networks K3 K4 K6 K9 K10 S9 S10 S11 B1		

| Theme

KSBs | Pass

Apprentices must demonstrate all of the pass descriptors | Distinction

Apprentices must demonstrate all of the pass descriptors and all of the distinction descriptors |
|---|---|---|
| Problem solving K17 K19 K20 K22 S8 S13 S17 S18 B5 | | |

Presentation and questions

Fail - does not meet pass criteria

| Theme

KSBs | Pass

Apprentices must demonstrate all of the pass descriptors | Distinction

Apprentices must demonstrate all of the pass descriptors and all of the distinction descriptors |
|---|---|---|
| Broadcast communications and networks K2 K7 K8 K11 K21 K23 S1 S2 S3 S6 S7 B2 | | |
| Service delivery K15 K16 K18 S15 S16 B4 | | |
| Sustainability K14 S14 | | |
| Health and safety K13 S4 S19 S20 | | |

Overall EPA grading

[Edit overall epa grading form](#)

Performance in the EPA determines the overall grade of:

fail

pass

merit

distinction

An independent assessor must individually grade the professional discussion underpinned by a portfolio of evidence and presentation and questions in line with this EPA plan.

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

If the apprentice fails one assessment method or more, they will be awarded an overall fail.

To achieve an overall pass, the apprentice must achieve at least a pass in all the assessment methods. To achieve a merit the apprentice must secure a distinction in one assessment method. To achieve a distinction the apprentice must secure a distinction in both assessment methods.

Grades from individual assessment methods must be combined in the following way to determine the grade of the EPA overall.

Change

Professional discussion underpinned by a portfolio of evidence	Presentation and questions	Overall Grading
Fail	Fail	Fail
Any grade	Fail	Fail
Fail	Any grade	Fail
Pass	Pass	Pass
Pass	Distinction	Merit
Distinction	Pass	Merit
Distinction	Distinction	Distinction

Re-sits and re-takes

[Edit re-sits and re-takes form](#)

If the apprentice fails one assessment method or more, they can take a re-sit or a re-take at their employer's discretion. The apprentice's employer needs to agree that a re-sit or re-take is appropriate. A re-sit does not need further learning, whereas a re-take does. The apprentice should have a supportive action plan to prepare for a re-sit or a re-take.

The employer and the EPAO should agree the timescale for a re-sit or re-take. A re-sit is typically taken within 2 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 3 months of the EPA outcome notification.

Failed assessment methods must be re-sat or re-taken within a 6-month period from the EPA outcome notification, otherwise the entire EPA will need to be re-sat or re-taken in full.

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

The apprentice will get a maximum EPA grade of pass if they need to re-sit or re-take one or more assessment methods, unless the EPAO determines there are exceptional circumstances.

Change

Roles and responsibilities

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Change

Roles	Responsibilities
Apprentice	As a minimum, the apprentice should: complete on-programme training to meet the KSBs as outlined in the apprenticeship standard for a minimum of 12 months complete the required amount of off-the-job training specified by the apprenticeship funding rules and as arranged by the employer and training provider understand the purpose and importance of EPA prepare for and undertake the EPA including meeting all gateway requirements
Employer	As a minimum, the apprentice's employer must: select the training provider work with the training provider to select the EPAO work with the training provider, where applicable, to support the apprentice in the workplace and to provide the opportunities for the apprentice to develop the KSBs arrange and support off-the-job training to be undertaken by the apprentice decide when the apprentice is working at or above the apprenticeship standard and is ready for EPA ensure the apprentice is prepared for the EPA ensure that all supporting evidence required at the gateway is submitted in line with this EPA plan confirm arrangements with the EPAO for the EPA in a timely manner, including who, when, where provide the EPAO with access to any employer-specific documentation as required for example, company policies ensure that the EPA is scheduled with the EPAO for a date and time which allows appropriate opportunity for the apprentice to meet the KSBs ensure the apprentice is given sufficient time away from regular duties to prepare for, and complete the EPA ensure that any required supervision during the EPA period, as stated within this EPA plan, is in place ensure the apprentice has access to the resources used to fulfil their role

Roles	Responsibilities
EPAO	and carry out the EPA for workplace based assessments
	remain independent from the delivery of the EPA
	pass the certificate to the apprentice upon receipt
EPAO	As a minimum, the EPAO must:
	conform to the requirements of this EPA plan and deliver its requirements in a timely manner
	conform to the requirements of the apprenticeship provider and assessment register
	conform to the requirements of the external quality assurance provider (EQAP)
	understand the apprenticeship including the occupational standard and EPA plan
	make all necessary contractual arrangements including agreeing the price of the EPA
	develop and produce assessment materials including specifications and marking materials, for example mark schemes, practice materials, training material
	maintain and apply a policy for the declaration and management of conflict of interests and independence. This must ensure, as a minimum, there is no personal benefit or detriment for those delivering the EPA or from the result of an assessment. It must cover:
	apprentices
	employers
	independent assessors
	any other roles involved in delivery or grading of the EPA
	have quality assurance systems and procedures that ensure fair, reliable and consistent assessment and maintain records of internal quality assurance (IQA) activity for external quality assurance (EQA) purposes
	appoint independent, competent, and suitably qualified assessors in line with the requirements of this EPA plan
	appoint administrators, invigilators and any other roles where required to facilitate the EPA
	deliver induction, initial and on-going training for all their independent assessors and any other roles involved in the delivery grading of the EPA as specified within this EPA plan. This should include how to record the rationale and evidence for grading decisions

Roles	Responsibilities
	where required
	conduct standardisation with all their independent assessors before allowing them to deliver an EPA, when the EPA is updated, and at least once a year
	conduct moderation across all of their independent assessors' decisions once EPAs have started according to a sampling plan, with associated ris rating of independent assessors
	monitor the performance of all their independent assessors and provide additional training where necessary
	develop and provide assessment recording documentation to ensure a clear and auditable process is in place for providing assessment decision and feedback to all relevant stakeholders
	use language in the development and delivery of the EPA that is appropriate to the level of the apprenticeship
	arrange for the EPA to take place in a timely manner, in consultation with the employer
	provide information, advice, and guidance documentation to enable apprentices, employers and training providers to prepare for the EPA
	confirm the gateway requirements have been met before they start the EPA for an apprentice
	arrange a suitable venue for the EPA
	maintain the security of the EPA including, but not limited to, verifying the identity of the apprentice, invigilation and security of materials
	where the EPA plan permits assessment away from the workplace, ensur that the apprentice has access to the required resources and liaise with the employer to agree this if necessary
	confirm the overall grade awarded
	maintain and apply a policy for conducting appeals
Independent assessor	As a minimum, an independent assessor must:
	be independent, with no conflict of interest with the apprentice, their employer or training provider, specifically, they must not receive a person benefit or detriment from the result of the assessment
	have, maintain and be able to evidence up-to-date knowledge and expertise of the occupation
	have the competence to assess the EPA and meet the requirements of th IQA section of this EPA plan

Roles	Responsibilities
	understand the apprenticeship's occupational standard and EPA plan
	attend induction and standardisation events before they conduct an EPA for the first time, when the EPA is updated, and at least once a year
	use language in the delivery of the EPA that is appropriate to the level of the apprenticeship
	work with other personnel, where used, in the preparation and delivery of assessment methods
	conduct the EPA to assess the apprentice against the KSBs and in line with the EPA plan
	make final grading decisions in line with this EPA plan
	record and report assessment outcome decisions
	comply with the IQA requirements of the EPAO
	comply with external quality assurance (EQA) requirements
	As a minimum, the training provider must:
	conform to the requirements of the apprenticeship provider and assessment register
	ensure procedures are in place to mitigate against any conflict of interest
	work with the employer and support the apprentice during the off-the-job training to provide the opportunities to develop the KSBs as outlined in the occupational standard
	deliver training to the apprentice as outlined in their apprenticeship agreement
	monitor the apprentice's progress during any training provider led on-programme learning
	ensure the apprentice is prepared for the EPA
	work with the employer to select the EPAO
	advise the employer, upon request, on the apprentice's readiness for EPA
	ensure that all supporting evidence required at the gateway is submitted in line with this EPA plan
Training provider	remain independent from the delivery of the EPA

Reasonable adjustments

[Edit reasonable adjustments form](#)

Reasonable adjustments

The EPAO must have reasonable adjustments arrangements for the EPA.

This should include:

how an apprentice qualifies for a reasonable adjustment

what reasonable adjustments may be made

Adjustments must maintain the validity, reliability and integrity of the EPA as outlined in this EPA plan.

Special considerations

The EPAO must have special consideration arrangements for the EPA.

This should include:

how an apprentice qualifies for a special consideration

what special considerations will be given

Special considerations must maintain the validity, reliability and integrity of the EPA as outlined in this EPA plan.

Change

Internal quality assurance

[Edit internal quality assurance form](#)

Internal quality assurance refers to the strategies, policies and procedures that an EPAO must have in place to ensure valid, consistent and reliable EPA decisions.

EPAOs for this EPA must adhere to the requirements within the roles and responsibilities table.

They must also appoint independent assessors who:

have recent relevant experience of the occupation or sector to at least occupational level 5 gained in the last 3 years or significant experience of the occupation or sector

Change

Value for money

[Edit value for money form](#)

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

completing applicable assessment methods online, for example computer-based assessment

utilising digital remote platforms to conduct applicable assessment methods

conducting assessment methods on the same day

Change

Professional recognition

[Edit professional recognition form](#)

This apprenticeship is not aligned to professional recognition.

Change

Mapping of KSBs to assessment methods

[Edit mapping of ksbs to assessment methods form](#)

Change

Knowledge	Assessment method
K1 Industry standards, such as delivery protocols and recommendations for example Digital Production Partnership - DPP, European Broadcasting Union - EBU and Society of Motion Picture Television Engineers - SMPTE.	Professional discussion underpinned by a portfolio of evidence
K2 The purpose, benefits, limitations and risks of specific equipment and software required for example microphones, cameras.	Presentation and questions
K3 Differences between cloud based and on premises systems.	Professional discussion underpinned by a portfolio of evidence
K4 Principles of design, architecture and maintenance of networks, such as streaming protocols, systems and connectivity.	Professional discussion underpinned by a portfolio of evidence
K5 The regulatory environment of own organisation. How the broadcast media and streaming services operate within this.	Professional discussion underpinned by a portfolio of evidence
K6 Potential variations from plans and schedules that might occur during system operation for example environmental changes, systems changes, locations, in the event of breaking news.	Professional discussion underpinned by a portfolio of evidence
K7 The effects that the working environment can have on colour balance and lighting and sound how to rectify.	Presentation and questions
K8 End-to-end broadcast workflow from production - studio- to distribution -	Presentation and questions

Knowledge	Assessment method
home - and own role within this.	
K9 Formats required for different transmission methods such as encoders, decoders, bit rates.	Professional discussion underpinned by a portfolio of evidence
K10 Industry protocols for metadata in relation to file transfer such as timecode, schemas, DPP standards.	Professional discussion underpinned by a portfolio of evidence
K11 How equipment and media systems are used as part of workflow within the organisation.	Presentation and questions
K12 Principles, protocols and processes for network maintenance, and the different types of maintenance, such as preventative, corrective and emergency repair.	Professional discussion underpinned by a portfolio of evidence
K13 Safe systems including precautions of work and isolation for working on broadcast and network system areas such as antennas, high voltage, power boards, switchboards and uninterruptable power supplies.	Presentation and questions
K14 The impact of environmental sustainability and organisational processes relating to broadcasting and systems resources.	Presentation and questions
K15 The importance of the level of service agreed in relation to role, technical quality and delivery.	Presentation and questions
K16 Organisational systems for recording information including stakeholder requirements, process requirements, technical details, unique features and agreed changes.	Presentation and questions
K17 Techniques to identify and prioritise operational problems such as equipment failure	Professional discussion underpinned by a

Knowledge	Assessment method
	portfolio of evidence
K18 The procedures for contacting the stakeholder's department or organisation.	Presentation and questions
K19 The business continuity procedures for the organisation and the steps to follow to recover the service.	Professional discussion underpinned by a portfolio of evidence
K20 Techniques to gather and analyse data regarding service operations to aid problem solving and incident management.	Professional discussion underpinned by a portfolio of evidence
K21 Electrical engineering principles such as the use of an uninterruptable power supply (UPS) and systems earthing.	Presentation and questions
K22 Tools and techniques to use to identify and rectify the causes of faults in broadcast and media systems and equipment.	Professional discussion underpinned by a portfolio of evidence
K23 Techniques to assess new and existing sites, event spaces- venues- for safety, operational and creative suitability.	Presentation and questions
K24 Organisational processes for ensuring physical and network security of data and systems.	Professional discussion underpinned by a portfolio of evidence
Skill	**Assessment method**
S1 Agree the operational requirements and protocols relating to broadcast and media systems, software and equipment including who can use them.	Presentation and questions
S2 Connect broadcast and media systems and equipment to network systems.	Presentation and questions

Knowledge	Assessment method
S3 Use industry software, hardware and follow processes to deliver workflow outputs.	Presentation and questions
S4 Work within required safety, security and confidentiality parameters.	Presentation and questions
S5 Check and confirm that broadcast operation complies with relevant regulations, standards, guidelines and procedures such as flashing images, loudness consistency.	Professional discussion underpinned by a portfolio of evidence
S6 Check the quality of outputs of broadcast systems using subjective and objective assessments such as output picture and sound quality, comparison with industry standards and system specifications, data stream and signal path analysis.	Presentation and questions
S7 Monitor the operation of broadcast and media systems at required times.	Presentation and questions
S8 Inform relevant personnel of monitoring activities and outcomes.	Professional discussion underpinned by a portfolio of evidence
S9 Apply techniques to ingest content, process, play out or export broadcast data or media.	Professional discussion underpinned by a portfolio of evidence
S10 Check and confirm the content or data to be broadcast is in the required format for the broadcast method, job, and region.	Professional discussion underpinned by a portfolio of evidence
S11 Play out or export media in line with technical requirements.	Professional discussion underpinned by a portfolio of evidence
S12 Work in line with organisational procedures to maintain the integrity and	Professional discussion underpinned by a

Knowledge	Assessment method
security of file-based media content to avoid hacking or theft of assets, reporting if there are any breaches.	portfolio of evidence
S13 Record maintenance requirements in organisational systems for future use or corrective action.	Professional discussion underpinned by a portfolio of evidence
S14 Follow sustainable practices in line with industry standard recommendations.	Presentation and questions
S15 Establish and agree clear terms of reference with stakeholders to assess if objectives have been met.	Presentation and questions
S16 Provide updates to technical and non-technical stakeholders adapting language to suit the audience.	Presentation and questions
S17 Apply incident management procedures, and report in line with organisational procedures.	Professional discussion underpinned by a portfolio of evidence
S18 Recognise faults, and follow procedures to rectify these or escalate within own level of responsibility.	Professional discussion underpinned by a portfolio of evidence
S19 Comply with health and safety legislation and policies, including electrical safety procedures, reporting any health and incidents or hazards.	Presentation and questions
S20 Operate within specific safety precautions when working with broadcast equipment, software and systems .	Presentation and questions
S21 Maintain a secure working environment, in line with organisational policies, protect individuals, information and organisational assets.	Professional discussion underpinned by a portfolio of evidence

Behaviour	Assessment method
B1 Works on own initiative, is proactive and inquisitive working to timelines; if mistakes are made take personal responsibility to address them.	Professional discussion underpinned by a portfolio of evidence
B2 Takes the initiative and responsibility for own learning and development, working with and learning from peers. Keeps abreast of developments in emerging, contemporary and advanced broadcast technologies	Presentation and questions
B3 Maintain commercial confidentiality and professional practice at all times, and in all settings.	Professional discussion underpinned by a portfolio of evidence
B4 Works collaboratively with stakeholders and colleagues, developing strong working relationships to achieve common goals. Support an inclusive culture and treat colleagues and stakeholders with respect.	Presentation and questions
B5 Use initiative and innovation to respond to technical failures, problem solve and trouble shoot, providing solutions in time critical environments.	Professional discussion underpinned by a portfolio of evidence

Mapping of KSBs to grade themes

[Edit add grade themes formEdit mapping of ksbs to grade themes form](#)

Change

Professional discussion underpinned by a portfolio of evidence

KSBS GROUPED BY THEME	Knowledge	Skills	Behaviour
Industry awareness K1 K5 K12 K24 S5 S12 S21 B3	Industry standards, such as delivery protocols and recommendations for example Digital Production Partnership - DPP, European Broadcasting Union - EBU and Society of Motion Picture Television Engineers - SMPTE. (K1) The regulatory	Check and confirm that broadcast operation complies with relevant regulations, standards, guidelines and procedures such as flashing images, loudness consistency. (S5)	Maintain commercial confidentiality and professional practice at all times, and in all settings. (B3)

KSBS GROUPED BY THEME	Knowledge	Skills	Behaviour
	environment of own organisation. How the broadcast media and streaming services operate within this. (K5) Principles, protocols and processes for network maintenance, and the different types of maintenance, such as preventative, corrective and emergency repair. (K12) Organisational processes for ensuring physical and network security of data and systems. (K24)	Work in line with organisational procedures to maintain the integrity and security of file-based media content to avoid hacking or theft of assets, reporting if there are any breaches. (S12) Maintain a secure working environment, in line with organisational policies, protect individuals, information and organisational assets. (S21)	
Broadcast communications and systems networks K3 K4 K6 K9 K10 S9 S10 S11 B1	Differences between cloud based and on premises systems. (K3) Principles of design, architecture and maintenance of networks, such as streaming protocols, systems and connectivity. (K4) Potential variations from plans and schedules that might occur during system operation for example environmental changes, systems changes, locations, in the event of breaking news. (K6) Formats required for different transmission methods such as encoders, decoders, bit rates. (K9) Industry protocols for metadata in relation to file	Apply techniques to ingest content, process, play out or export broadcast data or media. (S9) Check and confirm the content or data to be broadcast is in the required format for the broadcast method, job, and region. (S10) Play out or export media in line with technical requirements. (S11)	Works on own initiative, is proactive and inquisitive working to timelines; if mistakes are made take personal responsibility to address them. (B1

KSBS GROUPED BY THEME	Knowledge	Skills	Behaviour
	transfer such as timecode, schemas, DPP standards. (K10)		
Problem solving K17 K19 K20 K22 S8 S13 S17 S18 B5	Techniques to identify and prioritise operational problems such as equipment failure (K17) The business continuity procedures for the organisation and the steps to follow to recover the service. (K19) Techniques to gather and analyse data regarding service operations to aid problem solving and incident management. (K20) Tools and techniques to use to identify and rectify the causes of faults in broadcast and media systems and equipment. (K22)	Inform relevant personnel of monitoring activities and outcomes. (S8) Record maintenance requirements in organisational systems for future use or corrective action. (S13) Apply incident management procedures, and report in line with organisational procedures. (S17) Recognise faults, and follow procedures to rectify these or escalate within own level of responsibility. (S18)	Use initiative and innovation to respond to technical failures, problem solve and trouble shoot, providing solutions in time critical environments. (B5)

Presentation and questions

KSBS GROUPED BY THEME	Knowledge	Skills	Behaviour
Broadcast communications and networks K2 K7 K8 K11 K21 K23 S1 S2 S3 S6 S7 B2	The purpose, benefits, limitations and risks of specific equipment and software required for example microphones, cameras. (K2) The effects that the working environment can have on colour balance and lighting and sound how to	Agree the operational requirements and protocols relating to broadcast and media systems, software and equipment including who can use them. (S1) Connect broadcast and media systems and equipment to network systems. (S2) Use industry software, hardware and follow	Takes the initiative and responsibility for own learning and development, working with and learning from peers Keeps abreast of developments in emerging, contemporary and advanced broadcast technologies (B2)

KSBS GROUPED BY THEME	Knowledge	Skills	Behaviour
	rectify. (K7) End-to-end broadcast workflow from production - studio- to distribution - home - and own role within this. (K8) How equipment and media systems are used as part of workflow within the organisation. (K11) Electrical engineering principles such as the use of an uninterruptable power supply (UPS) and systems earthing. (K21) Techniques to assess new and existing sites, event spaces- venues- for safety, operational and creative suitability. (K23)	processes to deliver workflow outputs. (S3) Check the quality of outputs of broadcast systems using subjective and objective assessments such as output picture and sound quality, comparison with industry standards and system specifications, data stream and signal path analysis. (S6) Monitor the operation of broadcast and media systems at required times. (S7)	
Service delivery K15 K16 K18 S15 S16 B4	The importance of the level of service agreed in relation to role, technical quality and delivery. (K15) Organisational systems for recording information including stakeholder requirements, process requirements, technical details, unique features and agreed changes. (K16)	Establish and agree clear terms of reference with stakeholders to assess if objectives have been met. (S15) Provide updates to technical and non-technical stakeholders adapting language to suit the audience. (S16)	Works collaboratively with stakeholders and colleagues, developing strong working relationships to achieve common goals. Support an inclusive culture and treat colleagues and stakeholders with respect. (B4)

KSBS GROUPED BY THEME	Knowledge	Skills	Behaviour
	The procedures for contacting the stakeholder's department or organisation. (K18)		
Sustainability K14 S14	The impact of environmental sustainability and organisational processes relating to broadcasting and systems resources. (K14)	Follow sustainable practices in line with industry standard recommendations. (S14)	None
Health and safety K13 S4 S19 S20	Safe systems including precautions of work and isolation for working on broadcast and network system areas such as antennas, high voltage, power boards, switchboards and uninterruptable power supplies. (K13)	Work within required safety, security and confidentiality parameters. (S4) Comply with health and safety legislation and policies, including electrical safety procedures, reporting any health and incidents or hazards. (S19) Operate within specific safety precautions when working with broadcast equipment, software and systems . (S20)	None

Supporting information

External quality assurance

[Edit external quality assurance - eqa form](#)

Option selected: Ofqual

Involved employers

Arqiva, BBC Academy, Creative Skillset, IABM, Birmingham City University, Hattrick, BT Group, Bauer Media, Suitcase TV, Panasonic, dB Broadcast, The IET, Ravensbourne, International Moving Image Society, University of Salford, High Definition & Digital Cinema Ltd, Ericsson, Babcock International, ITV, Sky, Birmingham City University, Digital UK