



Higher National Unit Specification

General information

Unit title: Sound Production: Recording and Mixing (SCQF level 7)

Unit code: J01A 34

Superclass: XL

Publication date: May 2018

Source: Scottish Qualifications Authority

Version: 01

Unit purpose

The purpose of this unit is to familiarise learners with the principles and practice of multi-track recording and mixing, and is designed to allow the learner to develop skills in recording and mixing within typical multi-track recording studio environments in response to client briefs. It will enable learners to develop an understanding of the processes involved in recording and mixing multi-track sessions whilst effectively working with clients. This unit is intended for learners who wish to develop the skills and knowledge required to work in a recording studio environment within the sound production field.

Outcomes

On successful completion of the unit the learner will be able to:

- 1 Plan and engineer a multi-track recording to an agreed client brief.
- 2 Mix-down a multi-track recording to an agreed client brief.

Credit points and level

2 Higher National unit credits at SCQF level 7: (16 SCQF credit points at SCQF level 7)

Recommended entry to the unit

Entry is at the discretion of the centre. However, learners should have some knowledge of sound engineering, recording and mixing techniques. This could be evidenced for example by undertaking the HN Units: *Sound Production: Audio Skills* (SCQF level 7) and *Sound Production: Digital Audio Workstations* (SCQF level 7). Learners should also have sufficient communication skills that will enable them to work with clients.

Higher National unit Specification: General information (cont)

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Core Skills

Achievement of this unit gives automatic certification of the following Core Skills component:

Complete Core Skill	None
Core Skill component	Planning and Organising at SCQF level 5 Critical Thinking at SCQF level 5

There are also opportunities to develop aspects of Core Skills which are highlighted in the support notes of this unit specification.

Context for delivery

If this unit is delivered as part of a group award, it is recommended that it should be taught and assessed within the subject area of the group award to which it contributes.

The Assessment Support Pack (ASP) for this unit provides assessment and marking guidelines that exemplify the national standard for achievement. It is a valid, reliable and practicable assessment. Centres wishing to develop their own assessments should refer to the ASP to ensure a comparable standard. A list of existing ASPs is available to download from SQA's website (<http://www.sqa.org.uk/sqa/46233.2769.html>).

Equality and inclusion

This unit specification has been designed to ensure that there are no unnecessary barriers to learning or assessment. The individual needs of learners should be taken into account when planning learning experiences, selecting assessment methods or considering alternative evidence.

Further advice can be found on our website www.sqa.org.uk/assessmentarrangements.

Higher National unit specification: Statement of standards

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Acceptable performance in this unit will be the satisfactory achievement of the standards set out in this part of the unit specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

Outcome 1

Plan and engineer a multi-track recording to an agreed client brief.

Knowledge and/or skills

- ◆ Session planning
- ◆ Studio preparation
- ◆ Selecting equipment
- ◆ Signal routing and levels
- ◆ Communication with client
- ◆ Monitoring for engineer and performers
- ◆ Appropriate documentation
- ◆ Appropriate health and safety precautions
- ◆ File naming, handling and session back-up

Outcome 2

Mix-down a multi-track recording to an agreed client brief.

Knowledge and/or skills

- ◆ Evaluating recording prior to mix
- ◆ Control room monitoring
- ◆ Signal routing and levels
- ◆ Imaging and placement within stereo field
- ◆ Application of equalisation, dynamic and time-based effects
- ◆ Acting on feedback
- ◆ Mix-down formats
- ◆ File naming, handling and session back-up

Higher National unit specification: Statement of standards (cont)

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Evidence requirements for this unit

Learners will need to provide evidence to demonstrate their knowledge and/or skills across all outcomes by showing that they can:

Outcome 1 — Plan and engineer a multi-track recording to an agreed client brief

Product evidence:

- ◆ plan a multi-track recording session with reference to the client brief, studio layout and intended approaches to recording.
- ◆ produce appropriate documentation of choice of mics/DIs, gain controls and processing of signals.
- ◆ produce a multi-track recording which is optimal in terms of the source material and audio signal quality.
- ◆ perform effective file naming, handling and session back-up using appropriate naming conventions.

Performance evidence:

- ◆ prepare a studio for a multi-track recording with reference to the plan.
- ◆ select appropriate equipment for the recording session including microphones, DI boxes, and audio processors/plugins.
- ◆ establish appropriate signal routing and levels throughout the signal chain using appropriate controls and metering.
- ◆ perform dynamic range control on audio sources to optimise signal levels being recorded.
- ◆ select and maintain control of appropriate monitoring for engineer and performers.
- ◆ use time domain effects to enhance performer monitoring.
- ◆ perform overdubbing correctly using appropriate methods of punch in and out.
- ◆ effectively communicate with client and/or performers both directly and via talkback.
- ◆ demonstrate the use of appropriate health and safety precautions.

Higher National unit specification: Statement of standards (cont)

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Outcome 2 — Mix-down a multi-track recording to an agreed client brief

Product evidence:

- ◆ evaluate a multi-track recording to produce a mix-down plan.
- ◆ utilise panning to ensure effective imaging and placement within the stereo field.
- ◆ apply appropriate corrective and creative equalisation and dynamic processing.
- ◆ apply appropriate time-based effects.
- ◆ produce a mix-down which is optimal in terms of the source material, audio processing used, and audio signal quality.
- ◆ act on client feedback to provide at least one mix revision.
- ◆ perform mix-down to an appropriate, industry standard format.
- ◆ perform effective file naming, handling and session back-up using appropriate naming conventions.

Performance evidence:

- ◆ effectively select and use monitoring, maintaining safe sound pressure levels.
- ◆ effectively route signals throughout the mix-down and control levels to avoid clipping.

Outcomes may be assessed individually however the learner would benefit from holistic assessment of both outcomes by working on a project that will enable all evidence requirements to be met.

For Outcomes 1 and 2, evidence should take the form of product and performance evidence. Performance evidence should be recorded on an observation checklist.

Assessment should be carried out in open-book, supervised conditions to ensure authenticity of learner evidence and to enable assessment of performance evidence.

The learner should negotiate and agree realistic deadlines for completion of evidence for each outcome.



Higher National Unit Support Notes

Unit title: Sound Production: Recording and Mixing (SCQF level 7)

Unit support notes are offered as guidance and are not mandatory.

While the exact time allocated to this unit is at the discretion of the centre, the notional design length is 80 hours.

Guidance on the content and context for this unit

This unit is designed to familiarise the learner with the processes of multi-track recording and mixing in a studio environment. Through undertaking this unit learners will develop the technical and interpersonal skills required to plan, engineer and mix a multi-track recording to a client brief.

In Outcome 1, the learner will learn how to interpret a written or oral client brief to plan for a multi-track recording session. The learner will learn how to select and connect appropriate equipment and prepare the studio in advance of the session. The learner will gain the knowledge and skills to work with a client and/or performers to engineer a multi-track recording session, utilising technical skills while maintaining appropriate communication with the client and/or performers.

In Outcome 2, the learner will acquire the necessary knowledge and skills to mix-down a multi-track recording to an industry standard format. The learner will evaluate the multi-track recording in order to plan their approach to mix-down. The plan should consider all recorded elements and outline corrective or creative processes to be undertaken during the mix-down. The learner will then produce a mix-down of the multi-track recording using the plan as a guide. The learner will then seek and act upon client feedback by providing at least one mix revision with appropriate changes made to the mix in response to client feedback.

This unit offers the potential for aspects of the following National Occupational Standards to be demonstrated:

CCSMT1	Follow Health and Safety practices in music and sound industries
CCSMT8	Use essential analogue and digital sound recording skills
CCSMT37	Set up and use microphones and direct inject (DI) boxes
CCSMT16	Operate analogue and digital equalisation for music and audio industries
CCSMT18	Operate analogue and digital dynamics and effects for music and audio industries
CCSMT20	Carry out advanced studio routing and wiring for music and audio industries — patchbays and tie lines

Higher National Unit Support Notes (cont)

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Guidance on approaches to delivery of this unit

It is envisaged that this unit will be delivered in a recording studio setting using a learner centred, participative and practical approach. Sufficient time should be allowed for learners to become competent in the set-up and use of the studio, and to gain practical experience in recording and mixing before assessment is undertaken. Where sufficient studio time presents challenges for centres, preparatory mix-down for Outcome 2 could be undertaken in a lab setting. Although the mix-down could be completed in a lab setting, it is recommended that learners are made aware of the importance of monitoring a mix-down on loudspeakers and are afforded the opportunity to monitor their work on loudspeakers in a studio environment towards the end of the process.

Learners would benefit from demonstrations and practice in recording various sources and combinations of sources to allow them to develop the necessary knowledge and skills in studio set-up, signal routing and recording processes. While learners are undertaking practice sessions, they should be encouraged to develop the appropriate critical listening and communication skills which are essential to effectively engineer a recording session. Learners should be encouraged to reflect and build on these skills at every opportunity.

Prior to the assessment of mix-down, learners would benefit from formative exercises, practicing their mixing skills on a variety of existing multi-track recordings and again, being encouraged to reflect and improve their skills through appropriate feedback from teaching staff and by comparing their work to commercial recordings.

There is a wealth of written and online material available that explains and demonstrates recording and mixing techniques and learners and centres should make extensive use of such resources to support delivery of this unit. Centres could also exemplify commercial recorded examples which are effective in demonstrating particular recording and mixing skills and techniques.

Learners would also benefit from talks given by industry professionals particularly on the importance of interaction and effective communication with the client.

The learner should be encouraged to continually reflect on their technical, listening and communication skills throughout delivery of Outcomes 1 and 2.

Guidance on approaches to assessment of this unit

Evidence can be generated using different types of assessment. The following are suggestions only. There may be other methods that would be more suitable to learners.

Centres are reminded that prior verification of centre-devised assessments would help to ensure that the national standard is being met. Where learners experience a range of assessment methods, this helps them to develop different skills that should be transferable to work or further and higher education.

Higher National Unit Support Notes (cont)

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Assessment of this unit should be carried out holistically, with the learner working on a single recording and mixing project. The client could be an external client as this would aid in providing appropriate evidence for communication aspects of this unit. Where this is not viable, centre teaching staff should assume the role of the client.

Learners should be given a written brief which outlines key facts and information from the client in order to successfully plan the recording session.

For Outcome 1, it is suggested that learners submit a studio floor plan and the multi-track recording session project files as product evidence for Outcome 1. The floor plan should indicate performer positions, mic/DI types and placement information. The multi-track recording session project files should contain notes regarding mic/di type used, placement, gain settings and any processor settings. Performance evidence should be observed and recorded on an assessor checklist.

For Outcome 2, it is suggested that learners submit the mix-down plan, the mix-down session project files, a final mix and a revised final mix. The use of processing and techniques should be evident from the session files. If the learner has used external hardware processing, details and settings of this should be documented in the mix-down session project files. Performance evidence should be observed and recorded on an assessor checklist.

Track counts should not be used as assessment criteria for this unit. The emphasis should be on the successful and appropriate use of techniques and processes by the learner. However, centres should ensure that assessment briefs are sufficiently demanding to offer scope for the learner to demonstrate achievement of all evidence requirements.

Opportunities for e-assessment

E-assessment may be appropriate for some assessments in this unit. By e-assessment we mean assessment which is supported by Information and Communication Technology (ICT), such as e-testing or the use of e-portfolios or social software. Centres which wish to use e-assessment must ensure that the national standard is applied to all learner evidence and that conditions of assessment as specified in the evidence requirements are met, regardless of the mode of gathering evidence. The most up-to-date guidance on the use of e-assessment to support SQA's qualifications is available at www.sqa.org.uk/e-assessment.

Opportunities for developing Core and other essential skills

This unit provides the opportunity to develop the following aspects of Core and other essential skills:

Problem Solving: the learner will employ critical thinking when planning for and undertaking the recording session in Outcome 1. In Outcome 2, the learner will employ critical thinking throughout the mix-down process

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Communication: the learner will have the opportunity to develop oral communication skills during Outcomes 1 and 2 whilst working with a client.

Information and Communication Technology (ICT): the learner could have the opportunity to develop skills in accessing information through use of online tutorial resources during delivery of this unit.

Working with Others: through working with clients and/or performers, the learner will have the opportunity to develop their skills in working co-operatively with others.

Employability skills: the learner will have the opportunity to develop self-management, problem solving, communication and literacy, team working and IT elements of employability skills.

Entrepreneurial skills: The learner will have the opportunity to enhance their career development skills by working on live briefs and being encouraged to work to deadlines. Learners will also develop skills in industry standard techniques and processes.

Critical Listening skills: Throughout delivery of this unit, the learner will have the opportunity to develop and refine their critical listening skills.

This unit has the Planning and Organising and Critical Thinking components of *Problem Solving* embedded in it. This means that when learners achieve the unit, their Core Skills profile will also be updated to show they have achieved Planning and Organising at SCQF level 5 and Critical Thinking at SCQF level 5.

History of changes to unit

Version	Description of change	Date

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General information for learners

Unit title: Sound Production: Recording and Mixing (SCQF level 7)

This section will help you decide whether this is the unit for you by explaining what the unit is about, what you should know or be able to do before you start, what you will need to do during the unit and opportunities for further learning and employment.

In this unit, you will develop the knowledge and skills to undertake a multi-track recording and mix-down in a studio environment. You will develop the technical and interpersonal skills required to plan, engineer and mix a multi-track recording to a client brief. This unit will also help you develop your critical listening skills.

You will gain knowledge and skills in planning for a recording session and selecting and operating equipment to undertake the recording session.

You will gain knowledge and skills in mixing multi-track recording sessions and learn how to use common audio processing techniques that are used in mixing.

You will be assessed by undertaking a multi-track recording session followed by a mix-down of the session. You will be assessed on your technical skills and your ability to communicate with a client and/or performers.

You will have the opportunity to develop elements of the following Core Skills: *Problem Solving, Communication, Information and Communication Technology (ICT) and Working with Others.*

You will have the opportunity to develop elements of the following other skills: critical listening skills, employability skills and entrepreneurial skills

This unit has the Planning and Organising and Critical Thinking components of *Problem Solving* embedded in it. This means that when you achieve the unit, your Core Skills profile will also be updated to show you have achieved Planning and Organising at SCQF level 5 and Critical Thinking at SCQF level 5.