**XSQA**

# Higher National Unit Specification

## General information

**Unit title:** Music: Recording Techniques for Musicians (SCQF level 7)

**Unit code:** J0MM 34

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| **Superclass:** | LK |
| **Publication date:** | August 2018 |
| **Source:** | Scottish Qualifications Authority |
| **Version:** | 02 |

## Unit purpose

This unit is designed to give learners an insight into the multi-track recording process, related terminology, and key factors concerning the recording of music. It will give learners knowledge of the technical elements of a multi-track session and the opportunity to gain practical experience in recording and mixing music. Learners will use knowledge gained in capturing sound, the signal path and multi-track systems to plan a multi-track session. Learners will then contribute to the recording of a piece of music and create a stereo mix-down of the work. The unit is intended for HN Music learners wishing to increase their understanding and practical experience of the recording process.

## Outcomes

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

1   Plan a multi-track recording session.
2   Record a musical performance to a multi-track system.
3   Create an edited stereo mix of a musical performance.

## 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

While entry is at the discretion of the centre, learners would be recommended to have good communication skills. These may be demonstrated by the achievement of Core Skill *Communication* at SCQF level 6 or by possession of Higher English or relevant NQ Units. It would be beneficial if learners have completed NQ Unit, F58H 12 *Sound Engineering and Production*.

# Higher National Unit Specification: General information (cont)

**Unit title:** Music: Recording Techniques for Musicians (SCQF level 7)

## Core Skills

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

Complete Core Skill        None

Core Skill component        Critical Thinking at SCQF level 5
                              Planning and Organising at SCQF level 5
                              Working Co-operatively with Others 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

This is an optional unit in the frameworks for HN Music and HN Music Business. 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**

**Unit title:**     Music: Recording Techniques for Musicians (SCQF level 7)

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 a multi-track recording session.

## Knowledge and/or skills

- Session planning
- Microphone types and techniques
- Equipment selection
- Connections and routing
- Connecting artist monitoring
- Multi-track recording systems

# Outcome 2

Record a musical performance to a multi-track system.

## Knowledge and/or skills

- Microphone selection and placement
- Multi-track recording
- Gain structure and input monitoring
- Artist monitoring
- Overdubbing
- Storage of recorded tracks
- Studio etiquette and protocol

# Outcome 3

Create an edited stereo mix of a musical performance.

## Knowledge and/or skills

- Audio waveform editing
- Audio channel level balancing
- Audio channel panning placement
- Equalisation (EQ)
- Dynamic processing
- Time-domain processing
- Critical listening
- Output formats

# Higher National Unit Specification: Statement of standards (cont)

**Unit title:**   Music: Recording Techniques for Musicians (SCQF level 7)

## Evidence requirements for this unit

### Outcome 1

Learners will need to provide product evidence supported by an assessor observation checklist to demonstrate their knowledge and/or skills by showing that they can:

♦   plan a multi-track recording session.
♦   identify microphone types and techniques.
♦   identify equipment for a multi-track recording session.
♦   plan studio connections and routing to multi-track system.

Learners can work in a small team of no more than three to manage a multi-track recording of a musical performance. Learners will be individually responsible for the recording of at least four tracks, at least one of which will be an overdub. Each learner will create an annotated floorplan for a multi-track recording of a musical performance. Although each learner will be responsible for the recording of a minimum of four tracks they must individually create a floorplan for the entire session. The floorplan must include the following:

♦   All instrument positions
♦   Microphone/DI selection (as appropriate) clearly indicating the instrument being recorded
♦   Direction of signal flow
♦   Channel numbers for each signal
♦   Artist monitoring
♦   List of all equipment used

The completed plan will be submitted to the assessor for approval before undertaking Outcome 2. The evidence for this outcome will be generated under open-book conditions at appropriate points in the unit.

### Outcome 2

Learners will need to provide evidence supported by an assessor observation checklist to demonstrate their knowledge and/or skills by showing that they can:

♦   select and place microphones.
♦   record multi-track audio.
♦   demonstrate effective gain structure and input monitoring.
♦   provide artist monitoring.
♦   record overdubbed audio.
♦   demonstrate effective management of recorded tracks.
♦   demonstrate studio etiquette and protocol.

# Higher National Unit Specification: Statement of standards (cont)

**Unit title:** Music: Recording Techniques for Musicians (SCQF level 7)

Learners can work in small teams of no more than three to manage a multi-track recording of a musical performance. Each learner will be individually responsible for the recording of at least four discrete tracks, at least one of which will be an overdub. Learners must demonstrate professional conduct while communicating with performers and engineers during the session and managing time.

The recording must optimise gain structure and be free from unwanted distortion. At least one monitor mix must be provided for the artist(s). All recorded tracks must be appropriately named and stored for retrieval. If using a digital system, files must be named using uniform naming criteria.

Evidence for this outcome will take the form of an assessor observation checklist, and product evidence in the form of the completed multi-track session. The assessor will note the tracks that each learner has been responsible for. Evidence for this outcome will be generated under open-book, supervised conditions.

**Outcome 3**

Learners will need to provide performance and product evidence supported by an assessor observation checklist to demonstrate their knowledge and/or skills by showing that they can, in response to a brief:

♦ perform audio waveform editing.
♦ perform audio channel level balancing.
♦ perform audio channel panning placement.
♦ perform dynamic and time-domain processing.
♦ utilise critical listening skills to ensure the stereo mix is balanced, has a signal level within acceptable parameters and is free from unwanted distortion.

Each learner will need evidence to show that they can perform a stereo mix-down of a multi-track session with audio processing. They will be provided with a brief detailing acceptable output level and the output format.

The mix-down project must contain:

♦ audio waveforms that have been edited to remove unwanted noise. At least two audio waveforms must have been edited. Edits can include applicable top and tailing, fade in/out, or inserting silence.
♦ channels that have been panned to produce a stereo mix.
♦ two examples of the application of dynamic effects.
♦ two examples of the application of time-domain effects.
♦ a master output level within parameters specified in the brief.

The mix-down will be output to a format specified in the brief.

Evidence for this outcome will take the form of an assessor observation checklist together with the submission of the learner's stereo mix and the multi-track session. Evidence for this outcome will be generated under open-book, supervised conditions.

All outcomes should be undertaken separately and sequentially.
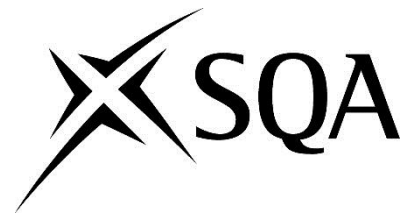
## Higher National Unit Support Notes

**Unit title:** Music: Recording Techniques for Musicians (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 an optional unit in the HN Music and Music Business frameworks and is designed to give learners knowledge of the multi-track recording process and practical experience in applying this knowledge. It is primarily intended for musicians who want to use the studio to record music but may also be suitable for those in music business wishing to gain an understanding of the process.

Learners can work in small teams of no more than three to manage a multi-track recording of a musical performance. Each learner will submit an individual plan for the entire recording session. Learners will be individually responsible for the recording of at least four tracks during the session, at least one of which will be an overdub. Therefore, a team of three will require a minimum of twelve tracks to satisfy the evidence requirements. Each learner will individually create a mix-down of a multi-track recording session. It is encouraged that this mix-down is of the session that they have recorded, however it is permissible to issue all learners with the same multi-track session to mix.

There are three stages to this unit: planning, recording and mixing. Learners must undertake a recording project of suitable scope to generate the evidence required for the unit. To ensure this, they may be given a recording brief by the assessor or agree with the assessor a suitable project to record. As a guide, a recording of a band with multiple microphones on the drum kit, bass guitar, electric guitar, acoustic guitar and vocals would be a project of suitable scope. It is not necessary to record any particular instrument; the example has been given so that assessors can agree/issue projects of suitable scope to generate the necessary evidence.

Access to a system capable of multi-track recording and an environment for making this recording is necessary for this unit. Access to a system for mixing multi-track recordings and time for each learner to create a multi-track mix-down is also necessary for the unit.

This is intended to be a practical unit, with assessment focussing on the practical activities of recording music and mixing music.

Outcome 1 considers input sources of microphones and DI boxes, common microphone types and their placement. Learners then look at the signal path and capturing the signal on a multi-track recording system. After gaining an understanding of how to create artist monitor mixes, each learner will submit an individual plan for a multi-track recording session in the form of an annotated floorplan.

## Higher National Unit Support Notes (cont)

**Unit title:**     Music: Recording Techniques for Musicians (SCQF level 7)

For Outcome 2, learners can work as part of a small team, of no more than 3, to manage a multi-track recording session. Each learner will be individually responsible for capturing at least four discrete channels, one of which must be an overdub. The assessor will observe the session as learners place microphones, connect the system, optimise gain structure, provide artist monitoring and record and store the multi-track recording.

For Outcome 3 learners will create an individual mix-down of a multi-track session: editing the audio waveforms (where necessary), setting levels, panning, applying dynamic effects, applying time-domain effects and producing a stereo master in a specified format with specified output levels.

This unit may provide opportunities for performers to create materials that could be used in a portfolio, such as the one required by *Music: Graded Unit 1* (SCQF level 7). There are also possibilities to integrate delivery and assessment with the optional unit, *Sound Production: Digital Audio Workstations* (SCQF level 7).

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
CCSMT9   Use essential analogue and digital sound editing techniques
SKSS16   Make sound recordings

## Guidance on approaches to delivery of this unit

It is envisaged that this unit will be delivered in both a classroom/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 of a basic multi-track recording system and the effective use of microphones. A suitable approach may be to introduce learners to microphones, microphone types and placement and the signal path with practical demonstration before making some small-scale multi-track recordings. Learners could then be encouraged to set up and make multi-track recordings to gain experience recording music.

While learners are undertaking practice sessions, they could be encouraged to develop the appropriate critical listening skills which are essential when working in a recording studio environment. Learners should be encouraged to reflect and build on these skills.

Learning experiences should be facilitated with consideration to the musicians' and engineers' perspectives. After being given the opportunity to run practice sessions, learners could then be scheduled for assessment, with discussion on suitable musical source/artist(s) to record. Learners will then be able to plan their multi-track session.

It may also be beneficial to create classroom activities where learners identify and become familiar with the audio equipment that they will have access to. They could also be directed to reference sources and online tutorials relating to the audio equipment. It is recommended that learners are encouraged to become familiar with operation manuals.

# Higher National Unit Support Notes (cont)

**Unit title:** Music: Recording Techniques for Musicians (SCQF level 7)

In preparation for Outcome 3, learners would benefit from formative exercises practicing mixing and editing skills. It may be useful to provide the learners with recordings and sessions to standardise the experience. The assessor could provide feedback at early stage to enable learners to improve and develop. Analysis of commercial recordings and comparison to commercial recordings could be of benefit when studying the mixing process. There are many tutorials available online to demonstrate most aspects of the mixing process.

There is a wealth of texts and online material available that explains and demonstrates recording and mixing techniques within a multi-track recording system environment and learners and centres should make extensive use of such resources to support the delivery of this unit.

## 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.

It is possible to assess the outcome knowledge and/or skills separately. However, it is recommended that a holistic approach is used to create a completed project.

### Outcome 1

For Outcome 1, annotated floorplans are to be created and submitted by each learner. The floorplan should be of a standard that is acceptable to give to an audio professional to enable setup of the session. The recommendation for the standard is that the plans are created in a computer drawing programme or if created by hand, neatly drawn using a ruler or fashioned clearly and skilfully by hand. Most computer programmes for word processing or creating presentations contain sufficient drawing tools to create these diagrams.

### Outcome 2

Outcome 2 should take place in a multi-track recording studio environment, where learners are observed to:

♦   correctly select microphones for given instruments.
♦   demonstrate microphone placement techniques.
♦   perform multi-track recording demonstrating effective gain structure and input monitoring. At least four discrete tracks including one overdub must be recorded.
♦   demonstrate effective file management.
♦   demonstrate studio etiquette and protocol.

## Higher National Unit Support Notes (cont)

**Unit title:** Music: Recording Techniques for Musicians (SCQF level 7)

Learners may work in small teams (up to three) on larger recording sessions so long as they are individually responsible for recording four discrete tracks and each learner has recorded at least one overdub. Assessors should note the tracks that each learner has been responsible for. The assessor is responsible for ensuring that each recording project will give sufficient scope to meet evidence requirements.

**Outcome 3**

Outcome 3 should be assessed by creation of a stereo mix-down in a format that has been specified in advance. Appropriate use of panning, level, equalisation, two time-domain effects and two examples of dynamic-domain processing should be evident as well as the use of waveform editing such as topping and tailing or stripping extraneous noise from the start and end of the recording. Examples of time-domain processing may include reverb, delay and echo. Examples of dynamic processing may include gating, compression and limiting.

Learners should submit all mix-down session files and the stereo mix in a format that has been specified in advance.

It is recognised that centres will use different technologies, assessors should ensure that the learners are able to meet the standards set out in the 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 a multi-track recording session, selecting the correct resources and managing timescales to a given brief.

*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.

*Employability skills*: The learner will have the opportunity to develop self-management, problem solving and application of IT elements of employability skills.

The learner will also have the ability to deliver critical listening skills through listening to and guiding the musicians during performance and while evaluating mix-down decisions.

# Higher National Unit Support Notes (cont)

**Unit title:** Music: Recording Techniques for Musicians (SCQF level 7)

This Unit has the Critical Thinking and Planning and Organising components of Problem Solving, and the Working Co-operatively with Others component of Working with Others embedded in it. This means that when learners achieve the Unit, their Core Skills profile will also be updated to show they have achieved Critical Thinking at SCQF level 5, Planning and Organising at SCQF level 5, and working Co-operatively with Others at SCQF level 5.

## History of changes to unit

| Version | Description of change | Date |
|---|---|---|
| 02 | Core Skills Components Critical Thinking, Planning and Organising, and working Co-operatively with Others at SCQF level 5 embedded. | 31/08/18 |
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## General information for learners

**Unit title:** Music: Recording Techniques for Musicians (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.

This unit is designed to give you an insight into the multi-track recording process, related terminology, and key factors concerning the recording of music. It will give you the opportunity to gain practical experience in recording and mixing music. The unit is designed to give you practical experience of recording and mixing a multi-track session.

You will be assessed by planning then undertaking a multi-track recording session of a musical performance. In addition to this, you will also be assessed on your ability to create an edited stereo mix of a musical performance.

In addition to the development of practical skills and knowledge, this unit will help to develop theoretical knowledge and understanding of sound production through the practical application of skills.

On completion of this unit you should be able to:

1    Plan a multi-track recording session.
2    Record a musical performance to a multi-track system.
3    Create an edited stereo mix of a musical performance.

For Outcome 1 you will plan a multi-track session, creating an annotated floorplan that captures performer positions and relevant microphone selections, direction of signal flow, equipment to be used, artist monitoring and channels numbers in the system to be used.

For Outcome 2 you will manage a multi-track recording session to capture a musical performance. You may work in a small team with two other learners to achieve this. You will take responsibility for the recording of at least four tracks, at least one of which must be an overdub. You will ensure suitable positioning of microphones and that the signal on each channel is captured, optimising the gain structure of the signal chain. You must observe professional conduct in communication with performers and other engineers. You will submit your multi-track session and your assessor will complete an observation checklist.

For Outcome 3 you will be supplied with details of an output format and create a stereo mix-down of a multi-track session in this format. For a successful mix-down, you will edit the audio, balance, pan and equalise the mix and apply (two of each) dynamic effects and time domain effects.

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 and employability skills.

This Unit has the Critical Thinking and Planning and Organising components of Problem Solving, and the Working Co-operatively with Others component of Working with Others embedded in it. This means that when you achieve the Unit, your Core Skills profile will also be updated to show you have achieved Critical Thinking at SCQF level 5, Planning and Organising at SCQF level 5, and Working Co-operatively with Others at SCQF level 5.