



National Unit Specification: general information

UNIT Music: Technical Support (SCQF level 6)

CODE F5E2 12

SUMMARY

This Unit is designed to provide candidates with the practical skills necessary to provide technical support to musicians or sound engineers, either in a performance environment or in a recording studio. Candidates will have the opportunity to develop skills in assembling, tuning and maintaining a drum kit and guitar, and soldering and testing leads. They will also have the opportunity to develop knowledge of Portable Appliance Testing (PAT) of electrical equipment.

This Unit is an optional Unit within the National Certificate in Music (SCQF level 6) and the National Certificate in Sound Production (SCQF level 6), but can also be taken as a free-standing Unit.

This Unit is suitable for candidates interested in working as a music technician in the music industry.

OUTCOMES

- 1 Assemble, tune, maintain and pack a drum kit.
- 2 Re-string, tune, maintain and store a guitar.
- 3 Identify and rectify faults in musical equipment leads.
- 4 Describe the application of PAT testing.

RECOMMENDED ENTRY

Entry is at the discretion of the centre.

CREDIT VALUE

1 credit at Higher (6 SCQF credit points at SCQF level 6*).

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

Administrative Information

Superclass: LJ

Publication date: February 2009

Source: Scottish Qualifications Authority

Version: 01

© Scottish Qualifications Authority 2009

This publication may be reproduced in whole or in part for educational purposes provided that no profit is derived from reproduction and that, if reproduced in part, the source is acknowledged.

Additional copies of this Unit Specification can be purchased from the Scottish Qualifications Authority. Please contact the Customer Contact Centre, telephone 0845 279 1000.

National Unit Specification: general information (cont)

UNIT Music: Technical Support (SCQF level 6)

CORE SKILLS

There is no automatic certification of Core Skills in this Unit.

The Unit provides opportunities for candidates to develop aspects of the following Core Skills:

- ◆ Communication
- ◆ Problem Solving

These opportunities are highlighted in the Support Notes of this Unit Specification.

National Unit Specification: statement of standards

UNIT Music: Technical Support (SCQF level 6)

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

Assemble, tune, maintain and pack a drum kit.

Performance Criteria

- (a) Correctly assemble a drum kit to meet the needs of a specified drummer.
- (b) Accurately tune, dampen and adjust the drum heads.
- (c) Correctly replace a drum head.
- (d) Correctly replace a cymbal.
- (e) Pack a drum kit to ensure safe transportation.

OUTCOME 2

Re-string, tune, maintain and store a guitar.

Performance Criteria

- (a) Correctly string a guitar.
- (b) Accurately tune a guitar.
- (c) Identify basic faults in a guitar and suggest remedial action.
- (d) Store a guitar to ensure safe transportation.

OUTCOME 3

Identify and rectify faults in musical equipment leads.

Performance Criteria

- (a) Identify a range of faults and potential hazards in musical equipment leads.
- (b) Rectify a specified power lead fault.
- (c) Solder a range of terminations for musical equipment leads.
- (d) Perform a continuity test on a range of terminations to ensure that leads function correctly.
- (e) Coil leads neatly.
- (f) Comply fully with health and safety requirements.

National Unit Specification: statement of standards (cont)

UNIT Music: Technical Support (SCQF level 6)

OUTCOME 4

Describe the application of PAT testing.

Performance Criteria

- (a) Describe the procedures involved in PAT testing.
- (b) Identify current Electricity at Work regulations which affect PAT testing.
- (c) Explain the impact of current Electricity at Work regulations on PAT testing.
- (d) Identify examples of equipment that could be PAT tested.

EVIDENCE REQUIREMENTS FOR THIS UNIT

OUTCOME 1

Candidates are required to produce performance evidence which demonstrates that they are able to assemble, tune, maintain and pack a drum kit.

The drum kit to be assembled and packed should contain a minimum specification of: a bass drum with pedal, snare drum, hi hat, crash, ride, hi tom, mid tom, floor tom, and drum throne. The drum kit should be correctly assembled to meet the needs of a specified drummer.

The candidate is then required to:

- ◆ replace a drum head.
- ◆ tune, and adjust the five drum heads stated above using a drum key, adopting a ‘cross-head’ approach. The tuning should be done by ear to a specified standard free from unwanted noises.
- ◆ dampen area(s) of the drum kit to prevent ringing.
- ◆ replace a cymbal.
- ◆ pack a drum kit to ensure safe transportation.

An Assessor Observation Checklist should be maintained by the tutor to ensure that all Performance Criteria are met. This Outcome should be assessed under supervised conditions on one assessment occasion.

OUTCOME 2

Candidates are required to produce performance evidence, in the form of a checklist, which demonstrates that they are able to:

- ◆ re-string a guitar. Tension must be maintained.
- ◆ accurately tune a guitar.
- ◆ inspect the guitar to identify possible faults: including undue ringing noises, and unexpected electrical noises.
- ◆ suggest possible remedial action for the following faults: undue ringing noises and unexpected electrical noises. Note — the candidate is not expected to rectify any faults, however they must give an indication as to the steps involved in rectifying these faults.
- ◆ store the guitar correctly, either in a case or on a purpose built guitar stand.

National Unit Specification: statement of standards (cont)

UNIT Music: Technical Support (SCQF level 6)

Outcome 2 should be assessed under supervised conditions on one assessment occasion.

OUTCOME 3

In Outcome 3 the candidate will be presented with a range of musical equipment leads which should include a minimum of the following terminations:

- ◆ an IEC plug
- ◆ a Mains Plug
- ◆ a ¼” unbalanced Phone Jack
- ◆ a ¼” balanced Phone Jack (‘Tip Ring Sleeve’ connector)
- ◆ XLR connector or ‘Cannon’

The candidate will be expected to identify the following faults:

- ◆ worn insulation
- ◆ knots in leads
- ◆ unterminated leads
- ◆ broken or cracked plugs
- ◆ incorrect fuse in plug
- ◆ blown fuse
- ◆ hazardous termination of leads

Candidates will be required to show they have identified these faults by producing written and/or oral evidence which records:

- ◆ the fault in the musical equipment lead
- ◆ the potential hazard
- ◆ action required

This evidence will be produced under supervised conditions.

Performance evidence, supported by an Assessor Observation Checklist, is required which demonstrates that candidates can:

- ◆ rectify one specified power lead fault
- ◆ solder the following three musical equipment lead terminations:
 - an XLR termination to a cable
 - a TRS termination to a cable (balanced input)
 - an unbalanced ¼” Jack termination to a cableand carry out a continuity test of the terminations using a multimeter
- ◆ coil the leads neatly
- ◆ adhere to health and safety requirements

This evidence will be gathered at appropriate points in the Unit.

National Unit Specification: statement of standards (cont)

UNIT Music: Technical Support (SCQF level 6)

OUTCOME 4

Candidates are required to produce written and/or oral evidence. This must include examples of five pieces of equipment that would be routinely tested in a recording studio or live music environment

This should be gathered in open-book conditions at appropriate points during the Unit.

National Unit Specification: support notes

UNIT Music: Technical Support (SCQF level 6)

This part of the Unit Specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

GUIDANCE ON THE CONTENT AND CONTEXT FOR THIS UNIT

The primary focus of this Unit is to provide candidates with the skills necessary to work in a technical support capacity for musicians or sound engineers, either in a live performance situation or in a recording studio. Candidates may progress to more specialised training in one of the areas covered in the Outcomes, for example as a qualified guitar technician or PAT tester. No prior knowledge or skills are required.

This Unit is an optional Unit within the National Certificate in Music (SCQF level 6) and the National Certificate in Sound Production (SCQF level 6), but can also be taken as a free-standing Unit.

This Unit is suitable for those who wish to progress to more advanced courses such as HND Sound Production and HND Music, or for anyone with an interest in working as a Music Technician.

Relevant health and safety information should be introduced early in the Unit and candidates should be made aware of the importance of following all relevant health and safety procedures at all times.

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

This Unit may be delivered in a variety of different settings to reflect the diverse skill set which is required for technical support. Instrument practice areas may provide a suitable context for delivering Outcomes 1 and 2, whereas Outcome 3 would require an open space with benches and power points, with good ventilation for soldering purposes.

Outcomes 1 and 2 are intended to provide technical support to musicians. It is therefore desirable that a musician who is not the candidate is able to give verbal feedback regarding the level of maintenance that the candidate is providing. It would also be desirable to allow candidates access to real life situations such as gigs where the candidate could be on hand to practise the skills learnt in the centre.

Candidates should be given on-going advice on the importance of good communication skills in providing successful technical support, especially in live situations.

Health and safety should be integral to teaching and learning, and centres should view this holistically in any practical exercises. Candidates should be made aware that health and safety is the concern of all professionals and should adhere to current legislation. In relation to Outcome 3, it is anticipated that visual examples would be given to candidates, and equipment would not be connected to the mains. The presentation of lead faults could be provided by actual leads or visual representations.

Opportunities should be given for candidates to observe a range of faulty equipment, not limited to the examples stated in the evidence requirements. For example, candidates may be shown how to test and replace a guitar speaker cabinet.

National Unit Specification: support notes (cont)

UNIT Music: Technical Support (SCQF level 6)

In Outcome 3 candidates must solder three specified musical equipment terminations. Some examples of these terminations could include: an XLR termination to a cable for connection of a microphone to a mixing desk; a TRS termination to a cable to connect a mixing desk output to a loudspeaker (balanced input); and an unbalanced ¼” Jack termination to a cable for connection of an electric guitar to an amplifier.

Outcome 4 provides candidates with an opportunity to investigate PAT testing. Centres may choose to allow candidates to use professional PAT testing equipment under supervision, if this is available, as part of the learning and teaching process, however this not a mandatory part of the Outcome. There are many online publications to which candidates can refer.

OPPORTUNITIES FOR CORE SKILL DEVELOPMENT

Candidates will be producing written and oral communication evidence as part of the assessment for Outcomes 3 and 4. This offers ideal opportunities to develop aspects of the Core Skill of *Communication*.

Outcomes 1 and 2 provide opportunities for candidates to develop aspects of the Core Skill of *Problem Solving*, in carrying out the tasks of assembling, tuning and maintaining a guitar and drumkit.

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

Suitable instruments of assessment are as follows:

- Outcome 1: Practical exercise
- Outcome 2: Practical exercise
- Outcome 3: Fault log and practical exercise
- Outcome 4: Written report

Centres will know from their on-going preparation of candidates, and from formative assessment of work in progress, when candidates are confident and ready for formal Unit assessment of the practical tasks assessed in Outcomes 1, 2 and 3.

In Outcomes 1 and 2 it is expected that on-going adjustments to the kit or guitar will ensue, depending on feedback from the musician. In tuning the instruments, candidates may use their ear, electronic tuners, pitch pipes, keyboards or other chosen device to assist with the task.

In Outcome 3 an integrated approach to assessment of PCs (a) and (b) is recommended, followed by a later assessment event integrating PCs (c), (d) and (e).

Outcome 4 — alternative methods of assessment such as oral presentations may also be appropriate for this Outcome.

Time should be allowed for any necessary re-assessment.

National Unit Specification: support notes (cont)

UNIT Music: Technical Support (SCQF level 6)

Opportunities for the use of 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 communications technology (ICT), such as e-testing or the use of e-portfolios or e-checklists. Centres which wish to use e-assessment must ensure that the national standard is applied to all candidate evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. Further advice is available in *SQA Guidelines on Online Assessment for Further Education (AA1641, March 2003)*, *SQA Guidelines on e-assessment for Schools (BD2625, June 2005)*.

CANDIDATES WITH DISABILITIES AND/OR ADDITIONAL SUPPORT NEEDS

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for Units. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* (www.sqa.org.uk).