



## **National Unit specification: general information**

**Unit title:** Stringed Instruments: Manufacture of an Instrument Neck (SCQF level 5)

**Unit code:** FX3C 11

**Superclass:** LJ

**Publication date:** October 2011

**Source:** Scottish Qualifications Authority

**Version:** 01

### **Summary**

The purpose of this Unit is to enable the candidate to manufacture an instrument neck according to a given plan, and ready for assembly to an instrument body. The Unit outlines the different types of neck and methods of neck construction commonly used in a range of stringed musical instrument making. The relationship between the neck and body is described and the essential elements that constitute a playable instrument are defined.

This is a mandatory Unit within the National Certificate in Stringed Musical Instrument Making and Repair (SCQF level 5), but can also be taken as a freestanding Unit.

This Unit is suitable for candidates with no previous experience of instrument making.

### **Outcomes**

- 1 Prepare an instrument neck blank for shaping.
- 2 Cut and form a headstock or peghead.
- 3 Cut and form an instrument heel.
- 4 Contour an instrument neck.

### **Recommended entry**

While entry is at the discretion of the centre, candidates would normally be expected to have basic woodworking skills. This may be evidenced by attainment of the following, or equivalent skills level:

- ◆ *Stringed Instruments: Woodworking Skills* (SCQF Level 5)

## General information (cont)

**Unit title:** Stringed Instruments: Manufacture of an Instrument Neck  
(SCQF level 5)

### Credit points and level

2 National Unit credits at SCQF level 5: (12 SCQF credit points at SCQF level 5\*)

*\*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.*

### Core Skills

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

- ◆ 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.

## **National Unit specification: statement of standards**

**Unit title:** Stringed Instruments: Manufacture of an Instrument Neck  
(SCQF level 5)

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**

Prepare an instrument neck blank for shaping.

#### **Performance Criteria**

- (a) A neck blank is accurately squared ready for shaping.
- (b) The neck blank is accurately marked out for shaping.
- (c) The preliminary form is correctly cut out and glued where necessary.
- (d) Processes are performed using appropriate tools.
- (e) The correct processes are accurately described.
- (f) Health and safety requirements are adhered to.

### **Outcome 2**

Cut and form a headstock or peghead.

#### **Performance Criteria**

- (a) The headstock or peghead shape is accurately marked out using a template.
- (b) The headstock or peghead shape is accurately cut out.
- (c) Holes for the tuning system are accurately bored.
- (d) Processes are performed using appropriate tools.
- (e) The correct processes are accurately described.
- (f) Health and safety requirements are adhered to.

### **Outcome 3**

Cut and form an instrument heel.

#### **Performance Criteria**

- (a) The heel is accurately marked out for cutting and shaping.
- (b) The heel is accurately cut and shaped.
- (c) Processes are performed using appropriate tools.
- (d) The correct processes are accurately described.
- (e) Health and safety requirements are adhered to.

## National Unit specification: statement of standards (cont)

**Unit title:** Stringed Instruments: Manufacture of an Instrument Neck (SCQF level 5)

### Outcome 4

Contour an instrument neck.

### Performance Criteria

- (a) The neck is accurately marked for contouring.
- (b) The neck is contoured correctly.
- (c) Processes are performed using appropriate tools.
- (d) The correct processes are accurately described.
- (e) Health and safety requirements are adhered to.

### Evidence Requirements for this Unit

Evidence is required to demonstrate that candidates have achieved all Outcomes and Performance Criteria.

A combination of product and performance evidence is required. Written and/or oral recorded evidence is also required to demonstrate the candidate's understanding of the process.

Product evidence:

- ◆ the completion of an instrument neck ready for assembling to an instrument body. The neck must be manufactured to a pre-determined scale length and neck width. The position of the holes on the headstock/peghead must correspond to the machine heads or pegs that will be fitted. The heel joint must be compatible with the method of attachment to the instrument body. The neck should conform to a minimum standard set in industry for instruments manufactured for the low end of the market, eg for beginners.

Performance evidence which demonstrates that:

- ◆ the candidate uses the appropriate tools and machinery in the correct manner to suit each task.
- ◆ the candidate adheres to the health and safety regulations and guidelines with regard to the workshop environment and use of hand-tools and machinery.

Product and performance evidence may be recorded on a checklist.

Written and/or oral evidence is required which provides an accurate description of the manufacturing process and demonstrates that the procedures used have been understood.

## National Unit specification: support notes

**Unit title:** Stringed Instruments: Manufacture of an Instrument Neck (SCQF level 5)

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 80 hours.

### Guidance on the content and context for this Unit

This is a mandatory Unit within the National Certificate in Stringed Musical Instrument Making (SCQF level 5), but can also be taken as a free-standing Unit.

This Unit is most effective when combined with the Unit *Stringed Instruments: Manufacture Instrument Body Components* (SCQF Level 5), as this will enable the candidate to manufacture all of the components required to construct an instrument.

Methods of neck reinforcement will be explained and examples provided. The association between scale length, neck relief, nut width, string height and string compensation should be outlined, enabling the candidate to understand how a neck functions in relation to the strings and body.

The range of tools used to construct the neck might include the following; plane, saw, coping saw, chisel, gauge, marking gauge, spoke shave, rasp, file, cabinet scraper and dividers. A woodworking bench with vice are also required.

Candidates should have some basic woodworking skills prior to beginning the Unit. The ability to plane a surface flat is necessary and should be further developed during the Unit.

Candidates completing this Unit will be working towards aspects of the following Creative and Cultural Skills National Occupational Standards.

Craft: CR13 Select and use techniques, materials, tools and equipment for craft

Craft: CR14 Prepare and maintain materials, tools and equipment for craft

Craft: CR15 Use safe working practices and spaces for craft

Craft: CR16 Complete the craft making process

Craft: CR17 Document and record craft work and work practice

Craft: CR51 Maintain and repair craft work

Craft: CR52 Restore, conserve and reconstruct work in craft

Craft: CR56 Make sure your own actions reduce risks to health and safety

## **Guidance on learning and teaching approaches for this Unit**

This is a workshop based Unit, however tutor input on the different types of instrument neck used in instrument making and the various methods of construction can be given prior to embarking on the practical work. A clear understanding of the mechanics of a neck and its relationship to the strings, fingerboard and body is required in order to build a neck that functions correctly. Methods of interpreting written and diagrammatic information should be explained and demonstrated.

It will be useful to identify software that can be used to calculate scale lengths and string tensions. The internet can also be used to show examples of professional instrument necks and different design elements. Information regarding specifications for machine heads and instrument pegs is readily available as is information and examples relating to truss-rods and other forms of neck reinforcement.

Candidates could keep a photographic or written logbook detailing the manufacturing process.

The skills developed in the Unit will include hand to eye coordination, problem solving, the interpretation of both written and oral information and woodworking.

## National Unit specification: support notes (cont)

**Unit title:** Stringed Instruments: Manufacture of an Instrument Neck (SCQF level 5)

### Opportunities for developing Core Skills

In this Unit candidates will manufacture one musical instrument neck.

Candidates will:

- ◆ read and interpret diagrams
- ◆ read instruction material relating to the construction process
- ◆ measure, mark, lay out and shape
- ◆ select and use tools
- ◆ identify health and safety issues
- ◆ record the manufacturing process

This means that as candidates are doing this Unit they will be developing aspects of the Core Skills of *Communication*, *Numeracy* and *Problem Solving*.

In addition, they may develop aspects of the Core Skill of *Information and Communication Technology (ICT)* where using the internet to research examples of instrument necks and design elements and/or use appropriate software to make calculations.

### Guidance on approaches to assessment for this Unit

Evidence of practical work may be recorded on an observation checklist supported by product evidence as detailed in the Performance Criteria. Written and/or oral evidence detailing the manufacturing process will be used to ensure candidates' understanding — this could be in the form of a logbook.

The logbook and checklist evidence could be accumulated holistically throughout the Unit for all Outcomes as can the product evidence which will be the manufacture of one instrument neck.

When taught as part of the National Certificate in Stringed Musical Instrument Making and Repair (SCQF level 5) there are opportunities for integration of delivery and assessment with the following Units:

- ◆ *Stringed Instruments: Manufacture Instrument Body Components* (SCQF Level 5)
- ◆ *Stringed Instruments: Assembly of Instrument Body and Neck* (SCQF level 5)
- ◆ *Stringed Instruments: Instrument Inlay and Soundhole Cutting Techniques* (SCQF Level 5)
- ◆ *Stringed Instruments: Manufacture of Jigs and Templates* (SCQF level 5)

## **National Unit specification: support notes (cont)**

**Unit title:** Stringed Instruments: Manufacture of an Instrument Neck (SCQF level 5)

### **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 Communication 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)*.

### **Disabled candidates and/or those with additional support needs**

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering whether any reasonable adjustments may be required. Further advice can be found on our website [www.sqa.org.uk/assessmentarrangements](http://www.sqa.org.uk/assessmentarrangements)



## History of changes to Unit

Version	Description of change	Date
02	Core Skills Component Critical Thinking at SCQF level 5 embedded.	30/09/2011

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