



National Unit specification: general information

Unit title: Furniture: Carcase Making

Unit code: H3MC 11

Superclass: JP

Publication date: April 2013

Source: Scottish Qualifications Authority

Version: 02

Summary

This Unit is designed to develop the candidate's ability to apply practical skills and adopt safe working practices in selecting materials, making a range of joints and manufacturing a three-dimensional carcase component.

The Unit is intended to be delivered through workshop activity supported by classroom sessions.

Outcomes

- 1 Select woodworking materials for specific purposes.
- 2 Make a range of woodworking joints.
- 3 Manufacture a carcase component from a working drawing.

Recommended entry

While entry is at the discretion of the centre, candidates would normally be expected to have had some previous experience in Craft Skills. This may be evidenced by:

- ◆ Craft and Design
- ◆ Woodworking Skills (Intermediate 1)

Credit points and level

1 National Unit credit at SCQF level 5: (6 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.*

General information (cont)

Unit title: Furniture: Carcase Making

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 4

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: Furniture: Carcase Making

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

Select woodworking materials for specific purposes.

Performance Criteria

- (a) Identify woodworking materials.
- (b) Select appropriate man-made and natural woodworking construction materials for a given purpose.
- (c) Describe the properties of woodworking materials.

Outcome 2

Make a range of woodworking joints.

Performance Criteria

- (a) Mark out woodworking joints within specified tolerances.
- (b) Manufacture woodworking joints to within specified tolerances.
- (c) Use correct terminology when referring to tools and processes being used.
- (d) Work in accordance with recognised procedures and safe working practices.

Outcome 3

Manufacture a carcase component from a working drawing.

Performance Criteria

- (a) Draw up a cutting list from the working drawing provided and check the materials supplied against it.
- (b) Mark out the product within specified tolerances.
- (c) Manufacture the product within specified tolerances.
- (d) Work in accordance with recognised procedures and safe working practices.

National Unit specification: statement of standards (cont)

Unit title: Furniture: Carcase Making

Evidence Requirements for this Unit

Outcome 1

Written and/or recorded oral evidence is required to demonstrate that candidates can identify manufactured and natural woodworking materials, suggest a suitable usage and give an indication of their properties in terms of structural strength, resistance to climatic conditions and working qualities. Materials should include, but are not limited to, a range of hard and soft woods, hardboard, interior and exterior plies, chipboard and block board.

Outcome 2

Practical evidence is required of the candidate's ability to produce a minimum of three woodworking joints, marked out and manufactured to within a tolerance of ± 1 mm. The joints produced should be chosen from the following:

- ◆ Butt joints
- ◆ Corner rebates
- ◆ Through and stopped housings
- ◆ Mitre joints
- ◆ Dovetail joints
- ◆ Mortice and tenon only with panel and frame or similar
- ◆ Dowel joints (flat and traditional)

The candidate must also be observed using the correct terminology when referring to tools and processes being used.

Outcome 3

Practical evidence is required of the candidates ability to safely manufacture a carcase component from a working drawing, to within tolerances of ± 1 mm for marking out and less than 2mm for joint gaps. This practical evidence should be supplemented by a completed cutting list in accordance with the working drawing.

National Unit specification: support notes

Unit title: Furniture: Carcase Making

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

Through a variety of practical work, the candidates should learn to interpret workshop drawings and draw up cutting lists from these drawings. Skills developed in other areas of the course should be developed further with assembly diagrams being used. Reading and interpretation of workshop drawings culminates in the more complex drawing required for the carcase artefact to be produced for Outcome 3.

Selecting appropriate materials

Candidates will learn the distinctive properties of a small range of hardwoods and softwoods and should also be able to select appropriate materials and sections, including man-made boards, to suit the manufacture of a range of products.

Use a range of marking-out and woodworking hand tools to manufacture a carcase-type artefact

Through a variety of practical work, candidates should use a range of marking-out and woodworking hand tools. They should acquire knowledge of tool names and their component parts. The candidates will make different woodworking joints, and it is recommended that this should be done as part of manufacturing artefacts which reflect the needs of the candidate. For the purposes of assessment, biscuit and comb (finger) joints are acceptable alternatives to dowels.

Guidance on learning and teaching approaches for this Unit

This Unit provides candidates with the opportunity to acquire knowledge and understanding of the properties and appropriate uses of materials. Candidates should be encouraged to be independent and to make choices in the use of natural and man-made board materials. They should also be expected to learn the importance of safety and conduct themselves in a manner suitable for an industrial area.

This Unit is practical in nature and requires the candidate to develop skills in:

- ◆ Reading and interpreting workshop drawings for carcase constructions.
- ◆ Drawing up cutting lists.
- ◆ Selecting appropriate materials.
- ◆ Using marking-out tools to mark out artefacts/joints.
- ◆ Using a range of woodworking tools to manufacture a carcase-type artefact.
- ◆ Adhering to safe working practices at all times.

National Unit specification: support notes (cont)

Unit title: Furniture: Carcase Making

Guidance on approaches to assessment for this Unit

Artefacts produced should require the identification and preparation of materials, setting out and making of a range of basic joints, and assembling procedures used in carcase joinery fabrications and structures. Typical products may be a box stool, bathroom shelving, a bookcase, or artefacts such as a garden cold frame, requiring larger sections of timber. In all cases, candidates should be encouraged to use varied sections of materials and varying types of man-made and natural materials. The value of this experience should not be underestimated. If Outcomes have to be reassessed, then it may be necessary to use 'test pieces' to develop the necessary skills. The Unit should culminate with the manufacture of a carcase product from a working drawing. This will include the teaching and learning of the use, application and possible modification of working drawings; the practical use of cutting lists; setting out, using rods and templates; drawing in; selection and use of appropriate joints; carcase assembly, including squaring and cramping. The carcase product produced for Outcome 3 could be part of a bigger artefact which would incorporate skills from the other Units in the course. An example of this carcase product may be the casing for a dartboard box or bathroom cabinet, with a door manufactured for the flat-frame construction Unit of the course, with handles turned on the woodwork lathe. This door would then be fixed to a carcase construction. This would incorporate skills and knowledge from other areas of the course. Alternative artefacts could be used that would provide the same experience but in a more vocational context, with setting-out skills being used over greater lengths and areas. An example of an artefact that would use larger sections of timber is a coldframe with a hinged and glazed top, fixed to a carcase construction base, made from appropriate exterior materials. This approach could serve any or all of the following three purposes:

- ◆ As a rehearsal for the course assignment, during which the candidate is expected to work with a degree of independence.
- ◆ As a means of reassessing certain performances from other areas of the course.
- ◆ As a means of employing a holistic approach to assessment, whereby much of the evidence for the other two Units of the course could be found in the artefact as it is described

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)*.

Opportunities for developing Core Skills

While there is no automatic certification of Core Skills or Core Skills components in this Unit, there may be opportunities to develop the Core Skills of *Problem Solving* and *Numeracy* at SCQF level 4 through the practical components of this Unit.

National Unit specification: support notes (cont)

Unit title: Furniture: Carcase Making

This Unit has the Critical Thinking component of Problem Solving embedded in it. This means that when candidates achieve the Unit, their Core Skills profile will also be updated to show they have achieved Critical Thinking at SCQF level 4.

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

History of changes to Unit

Version	Description of change	Date
02	Core Skills Component Critical Thinking at SCQF level 4 embedded.	22/04/2013

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