

Higher National Unit Specification

General information for centres

Unit title: Furniture: Experimental Techniques

Unit code: FOXW 35

Unit purpose: This Unit is designed to offer candidates an alternative approach to design through experimentation with practical aspects of their course work. It is intended to develop an awareness of structural aspects of construction and the potential for development into new product forms.

On completion of the Unit the candidate should be able to:

- 1 Research and develop production techniques used in furniture making.
- 2 Produce proposals through 3D modelling and experimentation.
- 3 Produce technical information for proposals.

Credit points and level: 1 HN Credit at SCQF level 8: (8 SCQF credit points at SCQF level 8*)

**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.*

Recommended prior knowledge and skills: Access to this Unit is at the discretion of the centre. It would be beneficial if candidates had prior experience of furniture manufacture, materials and tools.

Core Skills: There are opportunities to develop the Core Skills of Communication, Problem Solving and Numeracy at SCQF level 5 in this Unit, although there is no automatic certification of Core Skills or Core Skills components.

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.

Assessment: Candidates will be asked to demonstrate practical application of selected production techniques, and through further research and development, produce proposals for an item of furniture which utilises these techniques.

Designs should be explored through hands-on practical activity in the production of furniture components.

All exploration should be recorded through sketch development or 3D work and presented as a technical drawing for Outcome 3.

Higher National Unit specification: statement of standards

Unit title: Furniture: Experimental Techniques

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The sections of the Unit stating the Outcomes, knowledge and/or skills, and Evidence Requirements are mandatory.

Where evidence for Outcomes is assessed on a sample basis, the whole of the content listed in the knowledge and/or skills section must be taught and available for assessment. Candidates should not know in advance the items on which they will be assessed and different items should be sampled on each assessment occasion.

Outcome 1

Research and develop production techniques used in furniture making

Knowledge and/or skills

- ◆ Production processes
- ◆ Materials and construction
- ◆ Tools and equipment

Evidence Requirements

Candidates will need to provide evidence to demonstrate their knowledge and/or skills by showing that they can:

- ◆ carry out selected tasks with appropriate use of tools and equipment
- ◆ develop and form a personal line of enquiry, based on research

Evidence should include:

- ◆ a log of research activities
- ◆ a log of practical activities
- ◆ production techniques
- ◆ observation of practical skills

Assessment guidelines

The centre could make reference material available on the technical aspects of processes selected. Technical information on materials and construction and appropriate tools and equipment should underpin practical techniques used in the production of a series of furniture components. Practical exercises in the production of set components may be observed for assessment.

Higher National Unit specification: statement of standards (cont)

Unit title: Furniture: Experimental Techniques

Outcome 2

Produce proposals through 3D modelling and experimentation

Knowledge and/or skills

- ◆ Source materials
- ◆ Production techniques
- ◆ Design proposals
- ◆ Modelling techniques
- ◆ Experimentation techniques

Evidence Requirements

Candidates will need to provide evidence to demonstrate their knowledge and skills by showing that they can:

- ◆ produce a portfolio of work to show the development of design ideas leading to a proposal

Evidence should include:

- ◆ identification of appropriate materials
- ◆ evaluation of production techniques
- ◆ technical notes of production techniques to be used and work in progress
- ◆ visual evidence of the development of the solution including graphic presentation or appropriate modelling techniques

Assessment guidelines

Candidates could produce a design proposal and detail the experimental production techniques they intend to use.

They should include technical notes used to evaluate work in progress and make judgements on possible design solutions and approaches. The portfolio of evidence produced should include an evaluation of work in progress and show the evolution of the design and production techniques used.

Evaluation and assessment of this Outcome could be achieved by having the candidate present design ideas to peer group.

Higher National Unit specification: statement of standards (cont)

Unit title: Furniture: Experimental Techniques

Outcome 3

Produce technical information for proposals

Knowledge and/or skills

- ◆ Processes
- ◆ Dimensions
- ◆ Materials
- ◆ Health and safety

Evidence Requirements

Candidates will need to provide evidence to demonstrate their knowledge and skills by showing that they can produce detailed technical information, for their proposal, which includes:

- ◆ identification of processes involved
- ◆ evaluation of suitability of materials used
- ◆ awareness of health and safety
- ◆ evaluation of proposals
- ◆ a technical specification

Assessment guidelines

Proposals could be developed and refined through the production of full technical information for the design solution. Analytical work developed in Outcomes 1 and 2 could be evaluated and refined to form the basis of this information.

Administrative Information

Unit code: F0XW 35
Unit title: Furniture: Experimental Techniques
Superclass category: JP
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History of Changes:

Version	Description of change	Date

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Higher National Unit specification: support notes

Unit title: Furniture: Experimental Techniques

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

This Unit is optional within the HNC/D Furniture Group Award framework.

The purpose of this Unit is to offer candidates an alternative approach to design through experimentation with practical aspects of their course work. This Unit is intended to develop the candidates' awareness of structural aspects of construction.

Outcome 1

The candidate could be introduced to a variety of production techniques, tools and equipment for a chosen process and through practical application, encouraged to experiment with the components produced. Candidates could be directed to further research and investigation of processes and to produce relevant information from which they can develop and form a personal line of enquiry.

Outcome 2

Development of design ideas through experimentation with selected techniques should be encouraged. Candidates should evaluate work in progress and make judgements regarding possible design solutions and approach.

Outcome 3

Design proposals should be developed and refined through the production of orthographic drawings and resolved construction detail.

Guidance on the delivery and assessment of this Unit

Centres are encouraged, where appropriate, to integrate delivery and assessment of this Unit with other Units in the Group Award to which it contributes. It is envisaged that this Unit would be taught in the same semester as, or after, Units that deal with materials, upholstery or restoration projects to further develop candidate skills.

This Unit could be assessed alongside another process-based Unit such as Shaped Work, Timber Techniques or other appropriate Unit.

Outcome 1

This Outcome should allow candidates the opportunity to explore furniture production techniques. Reference material should be available on the technical aspects of processes selected by the centre. Technical information on materials and construction and appropriate tools and equipment should underpin practical exercises. Candidates should be encouraged to explore selected processes further and to generate a research file.

Higher National Unit specification: support notes (cont)

Unit title: Furniture: Experimental Techniques

Outcome 2

Candidates could research, develop and experiment with the production of three dimensional elements which may be duplicated and explored for structural qualities and for many and various configurations. Through these activities the candidate should produce design proposals for an item of furniture. Designs should be recorded through sketch development or 3D work aided with research material generated in Outcome 1. Candidates could be asked to present design proposals to peer group for evaluation.

Outcome 3

Candidates will need to produce a full technical specification for a design proposal, this could include orthographic drawings and construction details for an item of furniture.

Opportunities for developing Core Skills

Communication skills are not formally assessed although candidates are expected to research and evaluate production processes, as well as record design development, through note taking with a view to presenting design proposals to peer group. The availability of suitable software packages to support accuracy and professional presentation could also assist the development of skills in the use of IT. Outcome 3 could be produced using CAD software.

All elements of the Core Skill of Problem Solving, namely Planning and Organising, Critical Thinking, and Reviewing and Evaluating could be developed and enhanced as candidates undertake this Unit. Candidates need to identify and consider all available resources in the analysis of specified production techniques.

The Core Skill of Numeracy, could be developed through the application of chosen techniques to a design proposal. This activity requires the dimensioning and interpretation of dimensions/geometry through production processes.



Open learning

This Unit is not suitable for delivery by distance learning because of the special equipment used to complete the assessment. Also the practice needed for the application of production processes and techniques would need to be conducted in a workshop situation under supervised conditions.

For further information and advice, please refer to the SQA guide *Assessment and Quality Assurance for Open and Distance Learning* www.sqa.org.uk.

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. For information on these, please refer to the SQA document *Guidance on Alternative Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs*, which is available on SQA's website: www.sqa.org.uk.

General information for candidates

Unit title: Furniture: Experimental Techniques

This Unit will offer an alternative approach to design through experimentation with practical aspects of your course work. You will develop an awareness of structural aspects of construction through application and the potential for development.

You will be introduced to a variety of production techniques, tools and equipment for a chosen process and through practical application you will be encouraged to experiment with the components produced. You will further research and investigate these processes and produce relevant information which informs a personal line of enquiry.

You will research, develop and experiment with the production of three dimensional elements which may be duplicated and explored for structural qualities and for various configurations. Through these activities you will produce design proposals for an item of furniture.

You should record design proposals through sketch development or 3D work, and develop a portfolio of work including all research and development.

Your design should then be refined through the production of a full technical specification.