

Higher National Unit Specification

General information for centres

Unit title: Model Making: Architectural

Unit code: DX0A 34

Unit purpose: This Unit is designed to enable candidates to understand the process, planning and implementation in the construction of a presentational architectural model. The knowledge and skills acquired in this Unit will prepare candidates for more technical based Units and for employment in industry.

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

- 1 Interpret a given brief for an architectural model.
- 2 Collate and process information relevant to the brief.
- 3 Produce a production plan for model construction.
- 4 Present an outline for a proposed specification for a model.
- 5 Produce an architectural model in accordance with the given brief.
- 6 Evaluate the process and finished model in accordance with the given brief.

Credit points and level: 2 HN Credits at SCQF level 7: (16 SCQF credit points at SCQF level 7*)

**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: Candidates should have an understanding of the model making/construction process and good communication skills. These may be demonstrated by the possession of Higher Art, Graphic Communication and/or Product Design, Higher English or Core Skill of Communication at Higher level or equivalent.

Core Skills: There are opportunities to develop the Core Skills of Problem Solving, Communication, Numeracy and Information Technology at SCQF level 6 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: All Outcomes can be assessed individually in response to given briefs. However, it is recommended that Outcomes 1-5 could be integrated into a single holistic assessment.

Higher National Unit specification: statement of standards

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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

Interpret a given brief for an architectural model

Knowledge and/or skills

- ◆ Interpretation of brief
- ◆ Use of appropriate scale
- ◆ Style and form
- ◆ Time management

Evidence Requirements

Candidates will need to provide evidence to demonstrate their knowledge and/or skills by showing that they can, with reference to a given brief:

- ◆ clearly define the subject and content of the given brief
- ◆ select a suitable scale within the context of the brief
- ◆ select an appropriate style and form within the context of the brief
- ◆ plan for design task

Work produced outwith controlled conditions must be subject to authentication by the tutor.

Assessment guidelines

If holistic assessment of the whole Unit is being used, the given design brief should indicate the scope of the design activity, realistic timescales for completion and provide candidates with flexibility of choice.

Higher National Unit specification: statement of standards (cont)

Unit title: Model Making: Architectural

Outcome 2

Collate and process information relevant to the brief

Knowledge and/or skills

- ◆ Sources of information
- ◆ Visual development of ideas and concepts

Evidence Requirements

Candidates will need to provide visual evidence in either 2D or 3D form or multimedia format to demonstrate their knowledge and/or skills by showing that they can, with reference to a given brief:

- ◆ collate a variety of source information relevant to the given brief
- ◆ visually develop ideas and concepts

Work produced outwith controlled conditions must be subject to authentication by the tutor.

Assessment guidelines

If holistic assessment of the whole Unit is being used, the given design brief should indicate the presentation of assessment evidence for Outcome 2.

Outcome 3

Produce a production plan for model construction

Knowledge and/or skills

- ◆ Working drawings
- ◆ Methodology
- ◆ Construction Materials
- ◆ Surface finishes
- ◆ Support materials
- ◆ Time management

Evidence Requirements

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

- ◆ produce a production plan for model construction including a minimum of six annotated sketches (or equivalent)
- ◆ produce a 3D mock-up showing consideration of construction techniques and applied surface finishes

Work produced outwith controlled conditions must be subject to authentication by the tutor.

Higher National Unit specification: statement of standards (cont)

Unit title: Model Making: Architectural

Assessment guidelines

If holistic assessment of the whole Unit is being used, the given design brief should indicate the presentation of assessment evidence for Outcome 3.

Outcome 4

Present an outline for a proposed specification for a model

Knowledge and/or skills

- ◆ Communication/presentation skills
- ◆ Design constraints

Evidence Requirements

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

- ◆ clearly communicate the content and purpose of the presented work within the context of the design brief.

The presentation should be a minimum of 1,000 words or of approximately 15 minutes duration including supporting illustrated information.

Work produced outwith controlled conditions must be subject to authentication by the tutor.

Assessment guidelines

Candidates' presentation could include interactive question and answer sessions with tutor and peer group replicating industry sector design practice, and carried out as a group activity.

Outcome 5

Produce an architectural model in accordance with the given brief

Knowledge and/or skills

- ◆ Construction
- ◆ Rendering
- ◆ Assembly
- ◆ Detailing
- ◆ Health and Safety

Higher National Unit specification: statement of standards (cont)

Unit title: Model Making: Architectural

Evidence Requirements

Candidates will need to provide evidence to demonstrate their knowledge and/or skills by, producing an architectural model in accordance with the given brief and production plan, showing that they can:

- ◆ carry out the construction
- ◆ apply colour, tone and texture
- ◆ co-ordinate assembly of components
- ◆ implement detailing
- ◆ demonstrate safe and appropriate use of materials and equipment

The evidence will be presented, as part of a studio/workshop-based project where the candidate will produce and present an architectural model.

Work produced outwith controlled conditions must be subject to authentication by the tutor.

Assessment guidelines

The assessment for this Outcome is product based and will be underpinned by previous assessment evidence. Candidates should observe all Health and Safety requirements when producing the finished model.

Outcome 6

Evaluate and process and finished model in accordance with the given brief

Knowledge and/or skills

- ◆ Design process
- ◆ Design constraints
- ◆ Evaluation skills

Evidence Requirements

Candidates will need to provide evidence to demonstrate their knowledge and/or skills by producing an evaluation of the process and finished model by showing that they can:

- ◆ consider the effectiveness of the finished model in relation to the given design brief
- ◆ evaluate the effectiveness of time management and planning processes

Evidence will be presented in any suitable format to the peer group.

Work produced outwith controlled conditions must be subject to authentication by the tutor.

Higher National Unit specification: statement of standards (cont)

Unit title: Model Making: Architectural

Assessment guidelines

The assessment for this Outcome will be underpinned by previous assessment evidence from the earlier Outcomes. An evaluation of the process and finished product should allow the candidate to reflect on industry/sector working practice, determining the effectiveness of the finished solution.

Administrative Information

Unit code: DX0A 34
Unit title: Model Making: Architectural
Superclass category: TD
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Version	Description of change	Date

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Higher National Unit specification: support notes

Unit title: Model Making: Architectural

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 Unit has been developed to explore the process involved in the production of an architectural model. The context for this Unit is to enable candidates to work to an industry standard in the field of architectural model making. Architectural models form the main portion of the activity within the industry.

This Unit will give candidates an insight into the importance of collating, processing, planning and implementing the production of an architectural model. Candidates will develop an understanding of the importance of communicating in a professional manner. The model maker must be able to negotiate with all relevant parties in addition to demonstrating their practical problem solving skills.

This Unit has been developed as an optional Unit within the HN 3D Design: Model Making framework; this will allow candidates the opportunity to select more technical based specialist Units towards the end of their course. Candidates exiting at HNC level will also have had the opportunity to achieve a Unit that reflects industry/sector practice where practitioners often are often self-employed.

Guidance on the delivery and assessment of this Unit

This Unit should not be delivered until candidates have had the opportunity to develop an understanding of the range of tools, equipment, materials and techniques available to them within their own specialist area. This should be a project based Unit with candidates working independently when researching ideas and developing solutions.

Lectures with exemplars and class discussion, along with appropriate industrial visits, could be used to provide a stimulating visual launch to this project based Unit. Ongoing discussion and tutorials should be used to give candidates the chance to verbally justify and explain the development of their work in preparation for summative assessment.

A large portion of the contact time in this 2-credit Unit must be allocated to the production of the finished model, reflecting the industry standard of work that is required.

It may be possible to integrate this with another unit on the HND 3D Design: Model Making.

Holistic delivery and assessment is recommended. An existing, preferably industry-led, architectural project could be used as a case study, supported by professional references. Through open questions and group discussion the project could be de-constructed exploring all the processes involved from the delivery of the model to the initial contact by the client. There may be an opportunity to collaborate with a real or simulated client in this project providing that the evidence requirements can be met.

Higher National Unit specification: support notes (cont)

Unit title: Model Making: Architectural

Key deadlines for stages of the process should be set by the tutor allowing candidates to develop time management skills within set deadlines.

The presentation could contain the following:

- ◆ understanding of the different purposes of models such as sketch, concept, presentation
- ◆ the factors in selection of scale such as cost, time, level of detail etc
- ◆ understanding styles and form such as traditional and contemporary
- ◆ various sources of information such as client, reference library, planning department, photographic sketch
- ◆ how to change the format/scale of drawings and transferring retrieved information to scaled information
- ◆ candidate clearly shows that they can select and read the relevant drawings required to construct the model
- ◆ show sound thinking in the selection of materials and construction of materials, which conform to the brief and learning environment
- ◆ simulated surface samples such as brick, roof, grass, roads etc are produced accurately
- ◆ consideration is given to the cost and ordering of support materials such as cars, trees, figures, etching etc

Candidates should be encouraged to keep a photographic record of all their work, in particular any work produced outwith the centre.

Candidates should present a completed model by a given timeline. The model should show:

- ◆ clean, sharp and accurate construction with minimum waste of materials
- ◆ surfaces free of blemishes and imperfections
- ◆ sturdy assembly of components
- ◆ careful application of detailing and support materials

Candidates should observe safe working practice.

The evaluation stage allows candidates to critically reflect on their achievement of the final design solution within the context of the given design brief and to review the effectiveness of their planning process.

Opportunities for developing Core Skills

Candidates are working in a context which requires that they produce original design work in a practical context. As they work towards creative design solutions to a given brief, candidates will naturally develop an advanced level of problem solving skills. They need to analyse a range of theoretical and practical problems and issues, taking account of appropriate scale, materials and structures, as well as budget and timescales. Analysing and assessing the relative significance of each before identifying and justifying an appropriate strategic approach to visual concept development will provide opportunities to develop creative critical thinking and general problem solving skills to an advanced level. Selection and safe use of materials is integral to achievement. Evaluating the potential and actual impact of their designs will be a critical aspect of underpinning knowledge and understanding. Candidates could be supported in identifying appropriate criteria to measure achievement and progress in product and process evaluation in Outcome 6.

Higher National Unit specification: support notes (cont)

Unit title: Model Making: Architectural

Skills in developing an effective search strategy for accessing and evaluating paper based and electronic sources of current reference information on professional considerations, issues and legislation should be developed. Instruction in the effective use of use of learning resources will allow candidates to access and evaluate appropriate web based and other sources of current data. The accessing, transfer and modification of retrieved information is an essential skill, and support should be available through a VLE or similar facility. Accurate and effective presentation of data could be supported and enhanced by the use of appropriate technology and relevant current software. The emphasis of formative work should be on Numeracy as a tool to be used and applied efficiently and critically in creative design solutions.

Candidates need to be familiar with appropriate methods, including written, graphic and photographic, to record, reference and organise notes and drafts. Although communication skills are not formally assessed checklists of requirements could be useful as support. Candidates should be expected to analyse, produce and present written and oral materials to standards acceptable in industry, and to express essential ideas and information accurately and coherently. They should be encouraged to consider the most appropriate approach to working with others and to review their own skills in communicating with clients orally and in writing. This will require analysis of media and methods used to ensure effectiveness and accuracy. Individual and group discussions with the assessor to reinforce analytical evaluation of approaches to creative design solutions could enhance skills.

Open learning

Although this Unit could be delivered by distance learning, it would require a considerable degree of planning by the centre to ensure the sufficiency and authenticity of candidate evidence.

The brief and class notes for Outcomes 1-4 could be posted on a Virtual Learning Environment (VLE) with candidates submitting responses. Product evidence for Outcome 5 would be required to be submitted as recorded evidence in the form of photographs etc may not show sufficient detail. Observation of health and safety practice would need to be authenticated. Outcome 6 could be completed remotely.

For further information and advice please refer to Assessment and Quality Assurance for Open and Distance Learning (SQA, February 2001 — publication code A1030).

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: Model Making: Architectural

This Unit has been developed to explore the process involved in the production of an architectural model. The context for this Unit is to enable you to work professionally and to an industry standard in the field of architectural model making.

This Unit will give you an insight into the importance of retrieving, processing, planning and implementing information in the production of an architectural model. You will develop an understanding of the importance of communicating in a professional manner. As a model maker you will be able to negotiate with all relevant parties in addition to demonstrating your practical problem solving skills.

This Unit has been developed as an optional Unit within the HN 3D Design: Model Making course framework; this will allow you the opportunity to select more technical based specialist Units towards the end of your course. Exiting at HNC level will give you the opportunity to select a unit which reflects the activity in the main area of employment and the within the model making industry, where a large number of practitioners are working in a self-employed or freelance capacity.

This Unit will be delivered when you have had the opportunity to develop an understanding of the range of tools, equipment, materials and techniques available to you. This is a project based Unit and you will be required to work independently when researching ideas and developing solutions, and will involved presenting proposals to your peers.

As a launch to this project you may be asked to look at exemplars and participate in class discussion. It may also be possible to link this theory with industry practice. There may be an opportunity to collaborate with a real or simulated client in this project.

On completion of the Unit you will have a range of assessment evidence in the form of annotated sketchbooks and/or 2D/3D mock-ups detailing your progression through the design process. You will be asked to produce a detailed production plan which will support your design proposal. After completing the finished architectural model an evaluation will be used to reflect on both the process and product.