

National Unit Specification: General Information

UNIT Drawing For Building (Intermediate 2)

NUMBER D921 11

COURSE

SUMMARY

This unit is suitable for candidates with no prior experience of drawing. It gives candidates an introduction to the skills required to interpret and produce manual drawings of buildings. The unit commences by asking candidates to draw orthographic views of a geometric shape and proceeds to the interpretation and production of drawings to scale for a simple building using appropriate instruments and equipment. The unit will provide a good basis for further study in the Built Environment and could be used as an introductory unit prior to undertaking a Higher in Construction or Building and Architectural Technology.

OUTCOMES

- 1 Produce to scale, orthographic views of a geometric shape.
- 2 Describe the types of drawing and the purposes of the drawings used by the construction industry.
- 3 Produce to scale, a plan, section and elevations of a simple building.

RECOMMENDED ENTRY

Entry to this unit is at the direction of the centre.

No prior experience of drawing is required. However, good graphic communication skills will be an advantage together with some knowledge of building technology.

CREDIT VALUE

1 Credit at Intermediate 2.

Administrative Information

Superclass: TD

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CORE SKILLS

Information on the automatic certification of any core skills in this unit is published in *Automatic Certification of Core Skills* in National Qualifications (SQA, 1999).

National unit specification: statement of standards

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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 the Scottish Qualifications Authority.

Note on range for the unit

The range statement for this outcome is fully expressed within the performance criteria.

OUTCOME 1

Produce to scale, orthographic views of a geometric shape.

Performance Criteria

- a) Instruments and equipment are selected and used correctly in the production of the drawing.
- b) The given information is interpreted correctly.
- c) The principles of orthographic projection are applied correctly in the preparation of the drawing.
- d) Layout and presentation are appropriate to the type of drawing.
- e) The drawing produced is accurate and to an appropriate scale.

Evidence Requirements

Process observation and graphical evidence indicating competence in the selection and use of drawing equipment and in the production of orthographic views of the given geometric shape.

OUTCOME 2

Describe the types of drawing and the purposes of the drawings used by the construction industry.

Performance Criteria

- a) The types of construction drawing are correctly described.
- b) The purposes of construction drawings are correctly described.
- c) Appropriate scales for construction drawings are correctly stated.

Evidence Requirements

Written and/or oral evidence indicating a knowledge of the range of drawings used in small and medium sized building projects, the purposes of and the scales commonly used for each type of drawing.

National unit specification: statement of standards (cont)

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OUTCOME 3

Produce to scale, a plan, section and elevations of a simple building.

Performance Criteria

- a) Instruments and equipment are selected and used correctly in the production of the drawing.
- b) The given information is interpreted correctly.
- c) The principles of orthographic projection are applied correctly in the preparation of the drawing.
- d) Layout and presentation are appropriate to the type of drawing.
- e) The annotation is clear and appropriate.
- f) The completed drawing is clear, accurate and to an appropriate scale.

Evidence Requirements

Process observation and graphical evidence indicating competence in the selection and use of drawing equipment and in the production of a plan, section and elevations of a simple building.

National unit specification: support notes

UNIT Drawing For Building (Intermediate 2)

This part of the unit specification is offered as guidance. None of the sections of the support notes is mandatory.

GUIDANCE ON CONTENT AND CONTEXT

Outcome 1

This outcome should introduce candidates to the range of drawing materials, instruments and equipment used in the manual draughting process and to the principles of orthographic projection. Tutors may begin orthographic drawing with a simple geometric shape such as a cube and gradually progress to more complex geometric shapes to be used in the assessment.

Presentation techniques should be encouraged including general layout, lettering and title blocks.

Outcome 2

This outcome should provide candidates with a knowledge of the range of drawing types used in the construction industry.

The types of drawing considered should include site location, site layout, building location (general arrangement), assembly, component details, sections (roads and drainage) and fabrication. Ideally centres should obtain good examples of building drawings for candidates to examine. The purposes of each type of drawing should be considered along with the appropriate scales.

Candidate should also be introduced to British Standard 1192: Parts 1-5: Construction drawing practice or BSPP7319: 1989: Construction drawing practice for universities, polytechnics and colleges, or BSPP7320: 1988: Construction drawing practice for schools.

Outcome 3

This outcome takes candidates a stage further from outcome 1 in preparing a plan, section and elevations of a simple building. The finished drawing should be to a standard suitable to accompany an application to a Local Authority for a Building Warrant. The drawing should be for a simple building such as a double garage or a single storey extension to a dwelling house. It should include dimensions and annotated specification notes.

National unit specification: support notes (cont)

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GUIDANCE ON TEACHING AND LEARNING APPROACHES

It is recommended that the outcomes be completed in the sequence presented.

This unit should be viewed almost entirely as practical in that the candidate is required to practice and develop skills in manual drawing.

Underpinning knowledge of the types and requirements of construction drawing can be provided through examination and interpretation of building drawings as detailed in outcome 2. This will help candidates to appreciate the standard of presentation currently expected within industry.

GUIDANCE ON APPROACHES TO ASSESSMENT

For outcome 1 candidates could be presented with a geometric shape from which they will select the appropriate instruments and equipment and prepare orthographic views to scale of the given shape.

For outcome 2 candidates could be required to identify four types of drawing used in a typical housing development. For each type of drawing, candidates could be asked to describe the purpose and state a suitable scale. A worksheet could be used.

For outcome 3 candidates could be presented with information for a proposed new building from which they will begin to prepare a manual drawing of the plan, section and elevations to scale. It is expected that this assessment will be carried out in classroom under controlled conditions.

SPECIAL NEEDS

This unit specification is intended to ensure that there are no artificial barriers to learning or assessment. Special 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 Special Assessment and Certification Arrangements* (SQA, 1998).