

-SQA-SCOTTISH QUALIFICATIONS AUTHORITY

NATIONAL CERTIFICATE MODULE: UNIT SPECIFICATION

GENERAL INFORMATION

-Module Number-	8210014	-Session-	1994-95
-Superclass-	VF		
-Title-	DRAWING SKILLS: TECHNICAL DRAUGHTING - PARALLEL PROJECTION		

-DESCRIPTION-

GENERAL COMPETENCE FOR UNIT: Producing drawings using parallel projection methods.

OUTCOMES

1. explain how British Standards conventions apply to parallel projection methods;
2. describe the procedures for use and care of draughting materials, instruments and equipment;
3. produce drawings using parallel projection methods.

CREDIT VALUE: 1 NC Credit

ACCESS STATEMENT: There is no access statement for this unit.

For further information contact: Committee and Administration Unit, SQA, Hanover House, 24 Douglas Street, Glasgow G2 7NQ.

This specification is distributed free to all approved centres. Additional copies may be purchased from SQA (Sales and Despatch section) at a cost of £1.50 (minimum order £5).

NATIONAL CERTIFICATE MODULE: UNIT SPECIFICATION**STATEMENT OF STANDARDS****UNIT NUMBER:** 8210014**UNIT TITLE:** DRAWING SKILLS: TECHNICAL DRAUGHTING -
PARALLEL PROJECTION

Acceptable performance in this unit will be the satisfactory achievement of the standards set out in this part of the specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

OUTCOME

1. EXPLAIN HOW BRITISH STANDARDS CONVENTIONS APPLY TO PARALLEL PROJECTION METHODS

PERFORMANCE CRITERIA

- (a) The explanation of the need for British Standards is correct.
- (b) Parallel projection methods are correctly described.
- (c) The British Standards conventions for applying additional graphical information are correctly described.

RANGE STATEMENT

British Standards: BS1192; BS308.

Parallel projection methods: orthographic; axonometric; oblique.

Graphical information: image; titling; dimensioning; sectioning.

EVIDENCE REQUIREMENTS

Written evidence that the candidate can explain and describe British Standards conventions and parallel projection methods as detailed in Performance Criteria (a)-(c) and the range statement.

OUTCOME

2. DESCRIBE THE PROCEDURES FOR USE AND CARE OF DRAUGHTING MATERIALS, INSTRUMENTS AND EQUIPMENT

PERFORMANCE CRITERIA

- (a) The description of procedures for handling and care of materials, instruments and equipment is correct and in accordance with good practice.
- (b) The identification of appropriate use of instruments and equipment is accurate.
- (c) The description of procedures for storing materials, instruments and equipment is correct and in accordance with good practice.

RANGE STATEMENT

Materials: method of fixing; papers; pencils; draughting pens.

Instruments: compasses; circle template; french curves; flexi-curve; ellipse template; ruler.

Equipment: drawing board; equipment for drawing parallel lines; set-squares; protractor.

EVIDENCE REQUIREMENTS

Written evidence of the candidate's ability to accurately describe and identify the procedures for handling, care, use and storage of the materials, instruments and equipment as detailed in Performance Criteria (a)-(c) and in the range statement.

OUTCOME

3. PRODUCE DRAWINGS USING PARALLEL PROJECTION METHODS

PERFORMANCE CRITERIA

- (a) The given information is interpreted correctly with regard to measurement and scale.
- (b) The positioning of drawings and graphical information shows control of factors which influence the overall visual composition.
- (c) The use of instruments and equipment is precise and in accordance with good practice.
- (d) The use of line to express form is appropriate to the given information.
- (e) The use of parallel projection methods is correct.

RANGE STATEMENT

Graphical information: image; sectioning; titling; dimensioning.

Instruments: compasses; circle template; french curves; flexi-curve; ellipse template; ruler.

Equipment: drawing board; equipment for drawing parallel lines; set-squares; protractor.

Parallel projection methods: orthographic; axonometric; oblique.

Form: vertical; horizontal; angular; curved (might include circular).

EVIDENCE REQUIREMENTS

Written evidence that the candidate can interpret the given information as detailed in Performance Criterion (a).

Performance evidence that the candidate can produce a parallel projection whilst demonstrating control and use of line for the three different parallel projection methods as detailed in Performance Criteria (b)-(e) and the range statement.

ASSESSMENT RECORDS

In order to achieve this unit, candidates are required to present sufficient evidence that they have met all the performance criteria for each outcome within the range specified. Details of these requirements are given for each outcome. The assessment instruments used should follow the general guidance offered by the SQA assessment model and an integrative approach to assessment is encouraged. (See references at the end of support notes).

Accurate records should be made of assessment instruments used showing how evidence is generated for each outcome and giving marking schemes and/or checklists, etc. Records of candidates' achievements should be kept. These records will be available for external verification.

SPECIAL NEEDS

In certain cases, modified outcomes and range statements can be proposed for certification. See references at end of Support Notes.

© Copyright SQA 1995

Please note that this publication may be reproduced in whole or in part for educational purposes provided that:

- (i) no profit is derived from the reproduction;
- (ii) if reproduced in part, the source is acknowledged.

NATIONAL CERTIFICATE MODULE: UNIT SPECIFICATION**SUPPORT NOTES**

UNIT NUMBER	8210014
UNIT TITLE	DRAWING SKILLS: TECHNICAL DRAUGHTING - PARALLEL PROJECTION

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

NOTIONAL DESIGN LENGTH: SQA allocates a notional design length to a unit on the basis of time estimated for achievement of the stated standards by a candidate whose starting point is as described in the access statement. The notional design length for this unit is 40 hours. The use of notional design length for programme design and timetabling is advisory only.

PURPOSE This may be taken as a free-standing unit in a wide variety of programmes. It is particularly suitable for candidates undertaking an introduction to technical draughting.

SQA publishes summaries of NC units for easy reference, publicity purposes, centre handbooks, etc. The summary statement for this unit is as follows:

This unit will enable you to develop your skills in, and understanding of, parallel projection methods. You will learn about the techniques, materials, instruments and equipment used in technical draughting and will be able to apply them in relation to British Standards conventions. On completion of the unit you will be able to use orthographic, axonometric and oblique parallel projection methods.

CONTENT/CONTEXT Throughout this unit safety must be stressed. Safe working practices, care and correct use of equipment should be an integral part of all unit activities.

Corresponding to Outcomes 1-3:

Outcome 1 will require a thorough explanation of the relevant British Standards in relation to draughting practices in BS 1192 and BS 308.

Outcome 2 will require an introduction to the types and purposes of materials, instruments and equipment with particular emphasis on their appropriate handling, use and storage.

Fixing methods could include draughting tape or spring clips. The use of drawing pins is not recommended.

Equipment for drawing parallel lines can be a T-square or, if available, a parallel motion.

Outcome 3 will require an introduction to the importance of correct interpretation of given information; demonstration in the correct positioning of drawings and additional graphical information; explanation and demonstration of how to choose an appropriate scale and of the importance of accuracy; demonstration of the correct application of parallel projection methods.

APPROACHES TO GENERATING EVIDENCE A candidate-centred, resource-based learning approach is recommended. Source material may be derived from parallel projections, objects, or the environment. During the work of the unit candidates will have an opportunity to develop their practical and analytical skills, and these should be assessed at appropriate points. Terminology should be presented in context.

Where the candidate is unsuccessful in achieving an outcome, provision should be made for remediation and reassessment.

ASSESSMENT PROCEDURES Centres may use the Instruments of Assessment that are considered to be most appropriate. Examples of Instruments of Assessment that could be used to generate and gather evidence of achievement are as follows:

1. A written response to assess the candidate's comprehension of the related draughting theory: Outcomes 1, 2 and 3.
2. Practical exercises to assess the candidate's ability in using parallel projection methods: Outcome 3.

PROGRESSION It is also possible to apply and execute convergent projection methods in NC Module 8210024 Drawing Skills: Technical Draughting - Measured Perspective Projection and in modules in computer-aided draughting.

RECOGNITION Many SQA NC units are recognised for entry/recruitment purposes. For up-to-date information see the SQA guide 'Recognised and Recommended Groupings'.

REFERENCES

1. Guidelines for Module Writers.
2. SQA's National Standards for Assessment and Verification.
3. For a fuller discussion on assessment issues, please refer to SQA's Guide to Assessment.
4. Procedures for special needs statements are set out in SQA's guide 'Students with Special Needs'.

© Copyright SQA 1995

Please note that this publication may be reproduced in whole or in part for educational purposes provided that:

- (i) no profit is derived from the reproduction;
- (ii) if reproduced in part, the source is acknowledged.