

-SQA-SCOTTISH QUALIFICATIONS AUTHORITY

**Hanover House
24 Douglas Street
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NATIONAL CERTIFICATE MODULE DESCRIPTOR

-Module Number- 0064318 **-Session-1986-87**
-Superclass- XL
-Title- **PRINTED CIRCUIT TRACKING AND ARTWORK (x 1/2)**

-DESCRIPTION-

Type and Purpose design. A specialist module (1/2) intended to introduce the principles and accepted practices of art-work design.

Preferred Entry Level Standard Grade Science at Grade 5 or better.

Learning Outcomes The student should:
1. know the fundamental disciplines of artwork preparation;
2. be able to select artwork symbols and tape from manufacturers' data;
3. be able to apply pads, tapes and conductors onto base materials.

Content/ Context Corresponding to the Learning Outcomes:
1. determination of optional artwork scale by a minimum spacing criteria, positional accuracy of pads, conductors and components.
2. appropriate symbols to be taken from British and military standards. Artwork tape to be selected from graphs and tables of information. Symbols, pads and DIL patterns to satisfy the designer's specification.
3. base materials to include glass, perspex and acrylics. Use to be made of appropriate coloured tapes.

Suggested Learning and Teaching Approaches	<p>It is expected that part of the learning will be normally undertaken in an electrical/electronic laboratory environment. Ideally, parts of the module may be taught in a clean, dust free area. Draughting tables should be used for work design and taping should normally be well lit, and ergonomically stable as a large proportion of the module time will be spent in the artwork area.</p> <p>Appropriate drawing instruments, scalpels, and scissors will normally be required. Emphasis must be placed on the safety aspects when using sharp and potentially hazardous instruments.</p>
Assessment Procedures	<p>All learning outcomes must be validly assessed.</p> <p>The student must be informed of the tasks which contribute to summative assessment. Any unsatisfactory aspects of performance should, if possible, be discussed with the student as and when they arise.</p> <p>Acceptable performance in the module will be satisfactory achievement of the performance criteria specified for each learning outcome.</p> <p>The following abbreviations are used below:</p> <p>LO Learning Outcome IA Instrument of Assessment PC Performance Criteria</p> <p>LO1 IA Short answer item test.</p> <p>PC The student displays adequate knowledge of the content.</p> <p>LO2 IA Assembled artwork.</p> <p>PC The student produces the artwork which is:</p> <p>(a) laid out as recommended;</p> <p>(b) neat and accurate.</p> <p>LO3 IA Manufactured artefact.</p> <p>PC The student assembles an artefact in which the:</p> <p>(a) functional dimensions are within specified tolerances;</p> <p>(b) quality is comparable with an agreed exemplar.</p>