

-SQA-SCOTTISH QUALIFICATIONS AUTHORITY

**Hanover House
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NATIONAL CERTIFICATE MODULE DESCRIPTOR

-Module Number- 0064805 -Session-1986-87

-Superclass- VF

-Title- DESIGN AND MAKE

-DESCRIPTION-

Type and Purpose A general module which introduces the design process and allows the student to integrate a range of chosen topics.

Preferred Entry Level No formal entry qualifications.

Learning Outcomes The student should:

1. know the purpose of a clear design brief;
2. select and use relevant technical information for a design project;
3. plan the manufacture of the product;
4. make/assemble, test and if necessary modify the design;
5. comply with regulations and procedures and use safe working practices specified for equipment and work areas.

Content/ Context Examination of simple products to determine factors influencing the design process. Purpose of the design brief.

Use of a range of sources of information.

The advantages obtained by using standard parts.

Brief writing and documentation including:

- (a) sketches and specifications;
- (b) suppliers of parts and materials;

- (c) record of progress. Preparation of simple planning sheets for the manufacture of the product.

The nature of the design project should reflect the level of experience, the interest of the student and the time available.

Safety precautions applicable to tools equipment and work areas.

Suggested Learning and Teaching Approaches

The module activities should be experienced in an environment appropriate to the learning outcomes. Students should be encouraged to discuss problems, exchange ideas, assist each other and make decisions. Role playing is recommended.

Students should have ready access to up-to-date manufacturers' catalogues, technical publications and other relevant sources of information.

Exemplars should be available for the student to relate and compare standards.

Safety, safe practices and the care and use of equipment should be an integral part of all module activities.

Assessment Procedures

All Learning Outcomes must be validly assessed.

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.

Acceptable performance in the module will be satisfactory achievement of the performance criteria for each learning outcome.

The following abbreviations are used below:

LO Learning Outcome
IA Instrument of Assessment
PC Performance Criteria

LO1 IA Short answer exercise (written or oral).

PC The student satisfactorily explains the purpose of a design brief.

- LO2 IA Project file.
- PC The student chooses an area of interest and compiles a file to a reasonable standard which should include:
- (a) a design brief;
 - (b) relevant technical information;
 - (c) sketches and specifications;
 - (d) a record of progress.
- LO3 IA Written/graphics exercise.
- PC The student should prepare a simple planning sheet to an acceptable standard showing the sequence of preparations for manufacture/assembly.
- LO4 IA Manufactured artefact and report (written or oral).
- PC The student:
- (a) makes the designed artefact;
 - (b) tests the artefact against design specifications;
 - (c) makes necessary modifications;
- all to an acceptable standard.
- LO5 IA Observation checklist (in which the following elements must be included).
- PC The student consistently:
- (a) wears all necessary safety clothing and equipment;
 - (b) behaves in a manner appropriate to the working environment;
 - (c) uses tools and equipment safely.

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