

-SQA-SCOTTISH QUALIFICATIONS AUTHORITY

**Hanover House
24 Douglas Street
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NATIONAL CERTIFICATE MODULE DESCRIPTOR

-Module Number- 0065029 -Session-1986-87
-Superclass- TE
-Title- INTRODUCTION TO CONSTRUCTION 1

-DESCRIPTION-

Type and Purpose A general module which enables the student to gain an outline knowledge of construction

Preferred Entry Level No formal entry qualifications required

Learning Outcomes The student should:

1. know the principal types of construction projects;
2. identify the factors which make a site suitable for development;
3. understand the purpose of the main elements in construction;
4. understand the inter-relationships between main structural elements;
5. communicate effectively.

Content/ Context CORRESPONDING TO THE LEARNING OUTCOMES

1. Projects to include both civil engineering and building works:

 e.g. buildings (domestic, social, welfare, commercial and industrial), roads, water and sewerage works, power stations, ancillary works, oil rigs.

2. Factors to include:

planning/building permission, access, services, amenities (if applicable), practical construction problems.

3. Purposes to include:

foundations - transmission of loads; walls - load and non-load bearing, weather resisting, insulating; columns - load bearing, space saving; DPC - water barrier; floors/beams - supporting system; openings - access, light; roofs - weather proofing; finishings - weather proofing, decoration; earthworks - achievement of acceptable road and embankment profiles; retaining walls - to retain soil, fill; bridges - to span watercourses, roads, railways; culverts - to direct the flow of water; tunnels - to permit underground traffic movement; dams - to retain water; pipelines - to transmit fluids; water purification - to ensure water is fit for drinking; sewage treatment - to minimise pollution.

4. Inter-relationships to include:

roofs to walls/columns; floors to walls/columns; walls/columns to foundations; beams to supports; foundations to supporting medium; bridges to supports.

5. Effective communication both written and verbal should be encouraged as an integral part of the learning outcomes 1 to 4.

Learning and
Teaching
Approaches

A.V.A. should be used to show types of projects. Site visits may be used where possible to give a greater understanding of construction.

Discussion sessions on site development and construction projects using common terms should be encouraged in class and small groups.

Films will be of assistance in the understanding of the main constructional elements and their inter-relationship.

At all times the student should be actively encouraged to participate in discussion and all should be involved in reporting on a variety of projects.

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 should 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.

LO - Learning Outcome IA - Instrument of Assessment
PC - Performance Criteria

LO1& 2 IA Written/oral exercise.

PC The student lists correctly:

LO1

(a) the principal types of construction projects in both civil and building works;

LO2

(b) the factors which make a site suitable for development.

LO3 IA Written short-answer/graphics exercise.

PC The student

(a) correctly completes, including annotation, part-complete sketches;

(b) produces a clear written description of the purpose of the selected main elements in construction.

LO4 IA Objective test of 10 items.

PC The student:

identifies correct inter-relationships among main structural elements.

LO5 IA Observation checklist.

PC The student:

consistently uses in an appropriate manner, correct terminology and communicates effectively, both verbally and in writing.