

-SQA-SCOTTISH QUALIFICATIONS AUTHORITY

**Hanover House
24 Douglas Street
GLASGOW G2 7NG**

NATIONAL CERTIFICATE MODULE DESCRIPTOR

-Module Number-	0075229	-Session-1987-88
-Superclass-	TH	

-Title-	BUILDING SERVICES: DRAINAGE AND SANITATION (x 1/2)
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-DESCRIPTION-

Type and Purpose	A <u>general</u> module which introduces students to common systems of above ground and below ground drainage typical of small domestic buildings.
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Preferred Entry Level	No formal entry requirements.
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Learning Outcomes	The student should: 1. know the general layout of common above ground drainage systems; 2. know the general layout of below ground drainage systems; 3. know the operation of small domestic septic tank systems.
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Content/ Context	<u>Corresponding to Learning Outcomes 1-3:</u> 1. Sanitary appliances, traps, loss of seal, ventilation, classification as soil or waste. General arrangement of: two-pipe, one-pipe and single stack systems. Limitations of each system. Testing of new installations. Roof drainage: gutters, outlets, down-pipes, connection to drainage system. Materials and jointing.
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2. Drainage principles. General arrangement of: separate, combined and partially separate systems. Self cleansing gradient/velocity. Flexible and rigid pipelines. Access. Rodding. Ventilation. Special traps for petrol, grease and silt. Connection to public sewers where practicable. Materials and joint. Testing of new installations.
3. Necessity for sewage treatment. Circumstances requiring the provision of a septic tank. Operation of modern domestic septic tank, installations and principal design features. Factors affecting siting including proximity to buildings. Capacity. Sludge removal.

Suggested
Learning and
Teaching
Approaches

Exposition followed by class discussion. Examination of existing installations should be arranged where possible. Illustration by means of photographs, slides and videos should be considered. Reference should be made to current Regulations and Standards. Students should have ready access to current BRE publications, a wide range of product literature and a variety of text books.

Assessment
Procedures

Acceptable performance in the module will be satisfactory achievement of the performance criteria specified for each Learning Outcome.

The following abbreviations are used below:

LO Learning Outcome
IA Instrument of Assessment
PC Performance Criteria

LO1 IA written short answer/graphics exercise.

PC the student correctly describes, using annotated sketches where appropriate:

- (a) the functions of traps;
- (b) the common causes of loss of seal in traps;
- (c) one specified system of above ground drainage, identifying limitations/design features of the system;
- (d) the method of testing a new above ground drainage installation;
- (e) a suitable roof drainage arrangement for a given situation;
- (f) materials and jointing techniques commonly adopted for above ground drainage systems.

LO2 IA Written short answer/graphics exercise.

PC The student correctly describes, using annotated sketches where appropriate:

- (a) the function of a below ground drainage system;
- (b) two specified systems of below ground drainage;
- (c) the construction of a trap designed for material retention for a given situation;
- (d) the materials and jointing techniques commonly adopted;
- (e) one method of testing a new foul drain installation.

LO3 IA Written short answer/graphics exercise.

PC The student correctly describes, using annotated sketches where appropriate:

- (a) the circumstances in which a septic tank installation would be acceptable;
- (b) the construction of a modern factory-manufactured septic tank;
- (c) the sewage treatment process;
- (d) the factors influencing the siting of a septic tank.