

**-SQA-SCOTTISH QUALIFICATIONS AUTHORITY**

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

**NATIONAL CERTIFICATE MODULE DESCRIPTOR**

**-Module Number- 0068144 -Session-1986-87**

**-Superclass- SG**

**-Title- INTRODUCTION TO FOREST HARVESTING (x 1/2)**

**-DESCRIPTION-**

Type and Purpose A specialist module (1/2), to provide newcomers to the forest industry with the basic skills to enable them to assist in harvesting operations.

Preferred Entry Level No formal entry requirements.

Learning Outcomes The student should:

1. know the main features of common harvesting systems;
2. practise safety and good teamwork in harvesting operations;
3. use chokering equipment in forest harvesting;
4. use and maintain winches and cables for harvesting.

Content/Context Corresponding to the Learning Outcomes:

- 1 different ways in which trees may be felled and extracted. Student should be familiar with the following terms and operations - thinning, clear felling, felling racks, face felling, bench felling, contour felling; tree length and shortwood extraction; conversion at stump and roadside; presentation of produce for skidder, forwarder and cable crane extraction.

General capabilities and limitations of common types of skidder, forwarder and cable crane, as affected by terrain, crop characteristics, product specifications.

2. role of operators and workers in harvesting teams.

Hazards involved in working with rear skidders, forwarders, cable cranes, mobile saw benches and mobile peelers.

Responsibilities of forest workers to the general public.

Hazards associated with electricity cables and precautions to be taken.

Use of Forestry Safety Council Guides.

3. commonly used chokering equipment and its use; including protective clothing.

Identification of wear and damage, and appropriate action to be taken.

Identification of correct presentation of produce, and correct positioning of equipment (skidder or cable crane).

Correct chokering techniques; use of hand and radio signals. Minimisation jamming, loss of load, damage to load or standing trees.

4. mechanical principles of winches used in skidders and cable cranes.

General constructions of wire ropes, and their specifications.

Maintenance of wire ropes. Identification of common faults and their causes. Explanation of correct action to be taken for faulty or broken ropes. Identification of correctly made splice. Fitting eye thimble to a wire rope.

Suggested  
Learning and  
Teaching  
Approaches

As much of this module as possible should be undertaken in a practical situation.

Initially through the use of Audio-Visual resources, then through visits, students should become familiar with the range of harvesting systems commonly found.

After practice, following demonstrations, on wire ropes and choker handling, students should take part in harvesting operations by skidder.

Safety clothing must be worn at all times.

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 specified for each Learning Outcome.

Where cutting scores are stated these are intended to be for guidance. The precise cutting score for a test will depend on the difficulty of the test and will have to be decided by the Tutor aided by the Assessor.

The following abbreviations are used below:

LO Learning Outcome  
IA Instrument of Assessment  
PC Performance Criteria

LO1 IA Identification test.

PC The student identifies 10 items of commonly used harvesting equipment. These may either be actual items or pictures of them.

Cutting score 80%

LO2 IA Observation of the student's actions while carrying out the practical exercises for LO3 and LO4, used with an observation checklist.

PC The student:

- (a) correctly observes procedures given in Forestry Safety Council guides;
- (b) identifies all hazards and takes appropriate precautions;
- (c) ensures safety of public;
- (d) participates in good team work;
- (e) wears appropriate protective clothing.

LO3 IA Practical exercise in the use of chokering equipment, used with an observation checklist.

PC The student:

- (a) correctly assesses serviceability of equipment;

- (b) correctly positions and uses equipment;
- (c) correctly presents produce;
- (d) uses standard hand and radio signals;
- (e) minimises jamming, loss of load, damage to load or to standing trees.

LO4 IA Practical exercise in the use of winches and cables in forest harvestry, used with an observation checklist.

PC The student:

- (a) correctly assesses serviceability of winches and cables;
- (b) takes correct action when faulty or broken ropes are observed;
- (c) correctly assesses splices;
- (d) correctly fits an eye thimble to a wire rope;
- (e) carries out correct procedures in using winches and cables.