

-SQA-SCOTTISH QUALIFICATIONS AUTHORITY

**Hanover House
24 Douglas Street
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NATIONAL CERTIFICATE MODULE DESCRIPTOR

-Module Number- 0068026 -Session-1986-87

-Superclass- SG

-Title- USE OF HAND TOOLS IN FORESTRY WORK

-DESCRIPTION-

Type and Purpose A general module which enables the student to select, use and care for the hand tools required for forest maintenance.

Preferred Entry Level No formal entry requirements.

Learning Outcomes The student should:

1. know the operations and the purposes for which hand tools are used in forestry work and the mechanical alternatives used in large scale operations;
2. select and use a range of appropriate hand tools;
3. maintain straight edged and tooth edged tools.
4. comply with regulations, procedures and safe-working practices specified for activity areas.

Content/ Context Corresponding to the Learning Outcomes:

1	Operation	Reason for operation	Handtool	Machine
	Cleaning Competition-climbers-woody weeds	Remove Slasher Clearing axe Bill Hook	Axe saw Chainsaw Swipe	Clearing-Flail

Brashing Access to Brashing saw -
 plantation.
 Fire hazard reduction Pruning Removal of
 Bowsaw Chainsaw branches Pruning saw
 Circular saw
 Pruningchisel -
 Secateurs -
 Shears -
 Highpruners -

Draining Remove water Rutting spade Back hoe
 Bottoming Drainage spade screw
 Hack/drag Mole plough
 Mattock -
 Pickaxe -

Soil Aeration Spade Plough
 Culti- Root Fork Rippervation
 Penetration Hoe Harrow
 Mixing Rake
 Soil Structure Rotovator improvement

2. as wide a range of the tools listed as is practicable should be used by the student.

Correct use of tool - handling, stance, safety.

Achieving correct result - e.g. cutting off branch smoothly trim with stem.

3. maintenance techniques should be demonstrated on one straight edged tool and on one saw edged tool but all tools should be correctly maintained during use thereafter.

Sharpening a straight edged tool.

Sharpening, stripping and setting a saw edged tool.

Replacing detachable blade.

Oiling tools used before storage. cleaning deposits from saw blades before storage.

Replacing a broken shaft.

4. safety, safe practices, and care and use of equipment.

Suggested
 Learning and
 Teaching

The emphasis throughout should be on the acquisition of practical skills.

Approaches	<p>All instructions should be carried out in a practical situation. The instructor should demonstrate the correct use and correct job specification for each tool.</p> <p>Attention should be paid to hazards to machinery and establishing safe working practices.</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>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.</p> <p>The following abbreviations are used below:</p> <p>LO Learning Outcome IA Instrument of Assessment PC Performance Criteria</p> <p>LO1 IA Folio - the student is required to produce a set of notes and illustrations which cover the following operations: cleaning; brashing; pruning; draining; soil cultivation and for each operation list a reasonable range of tools and equipment used.</p> <p>PC The student:</p> <ul style="list-style-type: none">(a) lists, for each operation a reasonable range of tools and equipment used including mechanical alternatives where appropriate;(b) ensures that the folio is comprehensive;(c) ensures that all information is technically accurate;(d) presents information clearly. <p>Cutting score 70%.</p>

LO2 IA Practical exercise used with observation checklist - the student is required to carry out three given forestry tasks using hand tools.

PC The student:

- (a) selects appropriate tools for each task;
- (b) uses correct technique in handling tool;
- (c) observes all safety precautions;
- (d) produces an acceptable job.

LO3 IA Practical exercise used with observation checklist - the student is required to maintain a straight edged and a tooth edged tool.

PC The student correctly:

- (a) sharpens and shapes a straight edged tool;
- (b) sharpens and sets a saw edged tool;
- (c) selects and shapes a new shaft;
- (d) fits new shaft;
- (e) cleans and oils tools.

LO4 IA Observation checklist used in conjunction with practical work in other Learning Outcomes (in which the following elements must be included).

The student:

- (a) wears all necessary safety clothing and equipment;
- (b) behaves in a manner appropriate to the working environment;
- (c) uses tools and equipment safely.