



Higher National Unit specification

General information for centres

Unit title: Forestry: Operational Control

Unit code: F3YX 35

Unit purpose: This Unit is designed to give the candidate practical understanding and knowledge of how forest operations are supervised and monitored. The Unit is relevant to candidates requiring an understanding of the supervision and monitoring of forest operations at forest supervisor/manager level. This Unit is based on work experience placement or on existing employment.

On completion of the Unit the candidate should be able to:

- 1 Supervise and monitor forest operations.
- 2 Analyse the effectiveness of forest operations.

Credit points and level: 2 HN credits at SCQF level 8: (16 SCQF credit points at SCQF level 8*)

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

Recommended prior knowledge and skills: Access to this Unit is at the discretion of the centre. A prior knowledge of forest operations through completion of F3YC 34 *Establishment of Woodland* and F3YD 34 *Forest Harvesting* will be of advantage to candidates undertaking this Unit.

Core Skills: There are opportunities to develop the Core Skills of *Problem Solving*, *Working with Others* and *Communication* at SCQF level 6, although there is no automatic certification of Core Skills or the Core Skills components.

General information for centres (cont)

Context for delivery: If this Unit is delivered as part of a Group Award, it is recommended that it should be taught and assessed within the subject area of the Group Award to which it contributes.

This Unit is included in the frameworks of PDA Forestry.

Assessment: The assessment of this Unit could take the form of two holistic project reports — one on the supervision and monitoring of forest establishment operations (Outcomes 1 and 2) and the other on the supervision and monitoring of forest harvesting operations (Outcomes 1, and 2).

Both of these exercises could be based on an industrial placement period unless otherwise agreed with the tutor.

Higher National Unit specification: statement of standards

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The sections of the Unit stating the Outcomes, Knowledge and/or Skills, and Evidence Requirements are mandatory.

Where evidence for Outcomes is assessed on a sample basis, the whole of the content listed in the Knowledge and/or Skills section must be taught and available for assessment. Candidates should not know in advance the items on which they will be assessed and different items should be sampled on each assessment occasion.

Outcome 1

Supervise and monitor forest operations

Knowledge and/or Skills

- ◆ Role of a forest supervisor
- ◆ Forest supervisor skills
- ◆ Supervisory methods
- ◆ Health and Safety
- ◆ Environmental Safety
- ◆ Control of operations and the workforce
- ◆ Operational control documentation
- ◆ Record-keeping
- ◆ Reports
- ◆ Skills audit of workforce

Evidence Requirements

Candidates will need evidence to demonstrate their knowledge, understanding and/or skills by showing that they can supervise and monitor a forest operation. Candidates must:

- ◆ outline the need for and role of the forest supervisor and the skills required. This must include communication and organisation skills.
- ◆ identify the skills levels and any training needs of a workforce. This must include any recommendations for training where gaps are identified.
- ◆ give clear and comprehensive instructions to workforce. This must include all the relevant details in the job specification.
- ◆ adopt an appropriate approach as supervisor. This must be appropriate to the experience of the workforce and the complexity of the task.
- ◆ ensure workforce achieve the required quality standards for the task
- ◆ work to an operational plan, which must be correctly controlled and modified in accordance with ongoing operational requirements.
- ◆ ensure workforce adhere to health and safety and environmental safety requirements.
- ◆ monitor the forest operation and keep relevant and accurate records.
- ◆ communicate with relevant people in the chain of command on ongoing forest operation.

Higher National Unit specification: statement of standards (cont)

Unit title: Forestry: Operational Control

Assessment Guidelines

The assessment for this Outcome may be combined with the assessment for Outcome 2. Details are given in the Assessment Guidelines after Outcome 2.

Outcome 2

Analyse the effectiveness of forest operations

Knowledge and/or Skills

- ◆ Operational plan analysis
- ◆ Monitoring proposals for operations
- ◆ Monitoring and evaluating records for control purposes
- ◆ Future action recommendations for forest operations

Evidence Requirements

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ analyse an operational plan. This analysis must include consideration of the following:
 - whether the work tasks were realistic and achievable
 - whether resources were appropriate and adequate
 - site factors and weather conditions
 - accessthe analysis must be supported by informative records that have been kept for monitoring purposes. Candidates must make reference to these records in their analysis.
- ◆ make recommendations for future action, which are appropriate in terms of enhancing the effectiveness of forest operations.

Assessment Guidelines

The assessment for this Outcome may be combined with the assessment for Outcome 1 to provide a holistic assessment for the Unit consisting of two separate project reports.

These projects could be based on an industrial placement forest or other agreed location where the candidate has taken a role in the supervision of forest operations. These projects should be based on the supervision, monitoring and analysis of different types of forest operations. This could be a forest establishment operation and a forest harvesting operation or alternatively could be dissimilar establishment operations or some other operation as agreed with the tutor.

Information for the projects may be collected through research while on industrial placement. The candidate will produce two individual projects, each with a suggested word limit of 1,500 words, supported with appropriate maps and tables.

Administrative Information

Unit code: F3YX 35
Unit title: Forestry: Operational Control
Superclass category: SG
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Version	Description of change	Date

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Higher National Unit specification: support notes

Unit title: Forestry: Operational Control

This part of the Unit specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 80 hours.

Guidance on the content and context for this Unit

This Unit is designed as a mandatory part of PDA Forestry.

The content of this Unit should provide the candidate with an understanding of the management principles in operation in a given forest, with particular reference to the supervision and monitoring of forest operations.

It is recommended that the Unit should form a significant part of an industrial sandwich work-experience period.

The following support notes cover the mandatory requirements of the Unit and recommended aspects that could be covered in teaching and learning.

Outcomes 1 and 2

- ◆ supervisory methods
- ◆ the roles of the supervisor and the manager
- ◆ Health & Safety and Environmental Safety
- ◆ control of operations and workforce
- ◆ documentation used in operational control
- ◆ record-keeping used for monitoring and evaluation of forest operations
- ◆ practical experience of supervising and reporting on forest operations
- ◆ skills audits and appropriate training for forest workers

Guidance on the delivery and assessment of this Unit

It is recommended that candidates be prepared for this exercise in the last few weeks of term prior to going out on their work placement. This could be done by lecture input, supplemented by tutorials to display and discuss exemplars of completed projects.

This is a learning exercise for the candidates, mentored by working forest managers, and the information they glean from their research will stand them in good stead to make fuller use of their future studies on their return to college.

The evidence of achievement for Outcomes 1 and 2 could take the form of two project reports. It is suggested that these projects are designed to give the candidate the opportunity, during the industrial placement period, to gain a thorough insight into the management of a forest they know well. With the assistance of experienced forest managers, the candidate could produce detailed reports on the supervision and monitoring of forest establishment and harvesting operations in that forest.

Higher National Unit specification: support notes (cont)

Unit title: Forestry: Operational Control

It is suggested that this assessment should be made available to the candidate before they commence their industrial placement, and that the employer has sight and knowledge of this assessment so that its production can be integrated into the candidate's work programme on placement.

Distance learning students could produce these projects on ongoing work programmes as part of their normal work role. The project range will be agreed in advance with the tutor.

The report on forest establishment could include:

- ◆ an evaluation of an ongoing new planting or restocking programme
- ◆ a beating up assessment of the establishment area, where appropriate
- ◆ comment on the work practices observed
- ◆ a comparison of actual and predicted achievements, in terms of workforce, work outputs and operational constraints
- ◆ an evaluation of planting stock and methods
- ◆ comment on the operational controls that are implemented with regard to work quantities and work quality
- ◆ recommendations for future treatment
- ◆ comment on the suitability of the whole programme to the site
- ◆ comment on the following operations where relevant:
 - site preparation eg scarifying, mounding
 - preparation of access routes
 - draining
 - fencing
 - planting
 - fertilising
 - weeding
 - beating up
 - distribution of materials eg plants
 - forest protection eg insects, deer, fire
 - health and safety
 - environmental protection

The report on forest harvesting should include:

- ◆ the evaluation of an ongoing forest harvesting operation
- ◆ comment on the work practices observed
- ◆ a comparison of actual and predicted achievements, in terms of workforce, work outputs and operational constraints
- ◆ an evaluation of harvesting methods employed, with particular reference to environmental and health and safety considerations
- ◆ comment on the operational controls which are implemented with regard to work quantities and work quality
- ◆ recommendations for future treatment

Higher National Unit specification: support notes (cont)

Unit title: Forestry: Operational Control

- ◆ comment on the suitability of the programme to the site
- ◆ comment on the following operations where relevant:
 - site preparation
 - felling
 - conversion of produce
 - extraction of produce
 - stacking
 - removal
 - health and safety
 - environmental protection

Opportunities for developing Core Skills

There are opportunities to develop the Core Skills of *Problem Solving*, *Working with Others* and *Communication* at SCQF level 6 in this Unit. *Problem Solving*, *Working with Others* and Oral Communication may be developed through the candidate carrying out supervision, monitoring and analysis tasks. In doing so, candidates have to work to operational plans, communicate effectively with others and make recommendations for future action. Candidates may also develop their Written Communication if they submit written project reports.

Open learning

All Outcomes are appropriate for open and distance learning approaches, and it would be good practice to provide candidate packs and tutor input and support at all stages. Centre-devised supervision agreements should detail any conditions to ensure authenticity of evidence.

Candidates with disabilities and/or additional support needs

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for Units. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* (www.sqa.org.uk).

General information for candidates

Unit title: Forestry: Operational Control

This Unit, through active participation as a forest team member during your industrial placement period, is designed to provide you with a knowledge and understanding of the principles and practice of the supervision and monitoring of forest operations. The Unit will also develop your evaluation skills in matching operational plans with what is achieved in the field.

The Outcomes that you will acquire on completion of the Unit are as follows:

Outcome 1 will give you an understanding of the requirements for monitoring and evaluating forest operations and the opportunity to demonstrate effective supervision of forest operations.

Outcome 2 will give you a knowledge and understanding of the analysis of the effectiveness of forest operations.

This Unit is a mandatory Unit in the PDA Forestry. It is, however, a freestanding Unit and may be delivered as such for purposes of Continuing Professional Development.

Overall, the knowledge and skills acquired in this Unit will help you understand and evaluate the factors that influence forest management by assessing an actual working forest environment with which you are closely involved.

For candidates already in employment this Unit provides an opportunity to extend existing knowledge and skills and lays a solid grounding for further study in forest management.

This Unit will give you the opportunity to develop the Core Skills of *Problem Solving*, *Working with Others* and *Communication* at SCQF level 6, although there is no automatic certification of Core Skills or the Core Skills components.

The assessment of this Unit will likely require you to produce two reports on given or agreed forest operations of which you have experience in a supervisory capacity.