



Group Award Specification for:

**Professional Development Award in Forestry at
SCQF Level 7**

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1 Introduction

This document was previously known as the arrangements document. The purpose of this document is to:

- ◆ assist centres to implement, deliver and manage the qualification
- ◆ provide a guide for new staff involved in offering the qualification
- ◆ inform course managers teaching staff, assessors, learners, employers and HEIs of the aims and purpose of the qualification
- ◆ provide details of the range of learners the qualification is suitable for and progression opportunities

The forestry industry is a stable and important sector, worth £1 billion to the economy. Recent governments have supported the expansion of the industry and emphasized the significance of the industry to the rural economy.

The PDA in Forestry at SCQF level 7 is intended to provide an entry point to the forestry industry.

The PDA has been designed to be suitable for learners that are either already working in the industry and would like to increase their background understanding of the subject, or those who are interested in working in the sector and would like to know more. It will help to supply the specific niche markets of forestry supervisors and forest managers as well as opening up wider employment opportunities within the land based sector and beyond.

The award is based on practical exercises to build up knowledge, understanding and analysis skills for the working environment as well as research and evaluative skills for management. This means that learning is through actual practical exercises relevant to the work situation.

There are no formal entry requirements for this qualification, but it is recommended that learners complete the NPA Woodland Operations or similar before commencing on the PDA. For those already working in the sector, it is recommended that learners have *Communications* (SCQF level 6) or are able to work at this level, as there are a number of reports included within the assessments.

The PDA Forestry Operations has been designed as a standalone qualification, but also can serve as a bridge to the HNC/D Forestry, as the units of each overlap. The HNC and HND are designed to prepare learners for a career in forestry either as a supervisor or in management, working for an established company or as a forestry contracting entrepreneur. The HND qualification is designed to allow learners to articulate to the UHI BSc (Hons) Forest Management and also to articulate to a variety of universities in the UK and overseas at an appropriate level and type of qualification. The qualifications also allow articulation to membership of the Institute of Chartered Foresters (ICF) at the appropriate level.

2 Qualification structure

The PDA in Forestry at SCQF level 7 consists of 56 SCQF credit points at SCQF level 7. There are three mandatory units and the learner is required to complete an additional unit from the optional section.

2.1 Structure

Learners must complete and pass all of the units in Table 1, and one of the units in Table 2 to gain the group award.

Table 1 — Mandatory units

4 code	2 code	Unit title	SQA credit	SCQF credit points	SCQF level
HX5M	35	Forest Science	2	16	8
F0VP	34	Employment and Health and Safety Legislation for Land Based Industries	1	8	7
HX5N	34	Forest Mensuration and Thinning Control	2	16	7

Table 2 — Optional units

4 code	2 code	Unit title	SQA credit	SCQF credit points	SCQF level
F3YC	34	Establishment of Woodland	2	16	7
HX5P	34	Forest Harvesting	2	16	7

3 Aims of the qualification

The principal aim of the PDA in Forestry Operations is to provide learners with a basic knowledge of the underlying scientific principles for the establishment, maintenance, growth and harvesting of woodland/forest trees.

3.1 General aims of the qualification

On completion of the PDA the learner should be able to:

- 1 Analyse factors that affect tree growth and development and understand basic plant physiology
- 2 Describe and explain temperate woodland ecosystems in the United Kingdom
- 3 Select appropriate tree species, cultivation methods and maintenance requirements for successful establishment of woodlands to meet defined management objectives
- 4 Interpret and apply current employment and health and safety legislation to operations in the forestry sector
- 5 Measure and forecast volumes of felled timber and standing forest crops
- 6 Plan and implement thinning control operations
- 7 Develop operational harvesting plans, selecting machinery and working methods which are appropriate for site conditions and constraints, crop characteristics and which meet health and safety requirements

3.2 Specific aims of the qualification

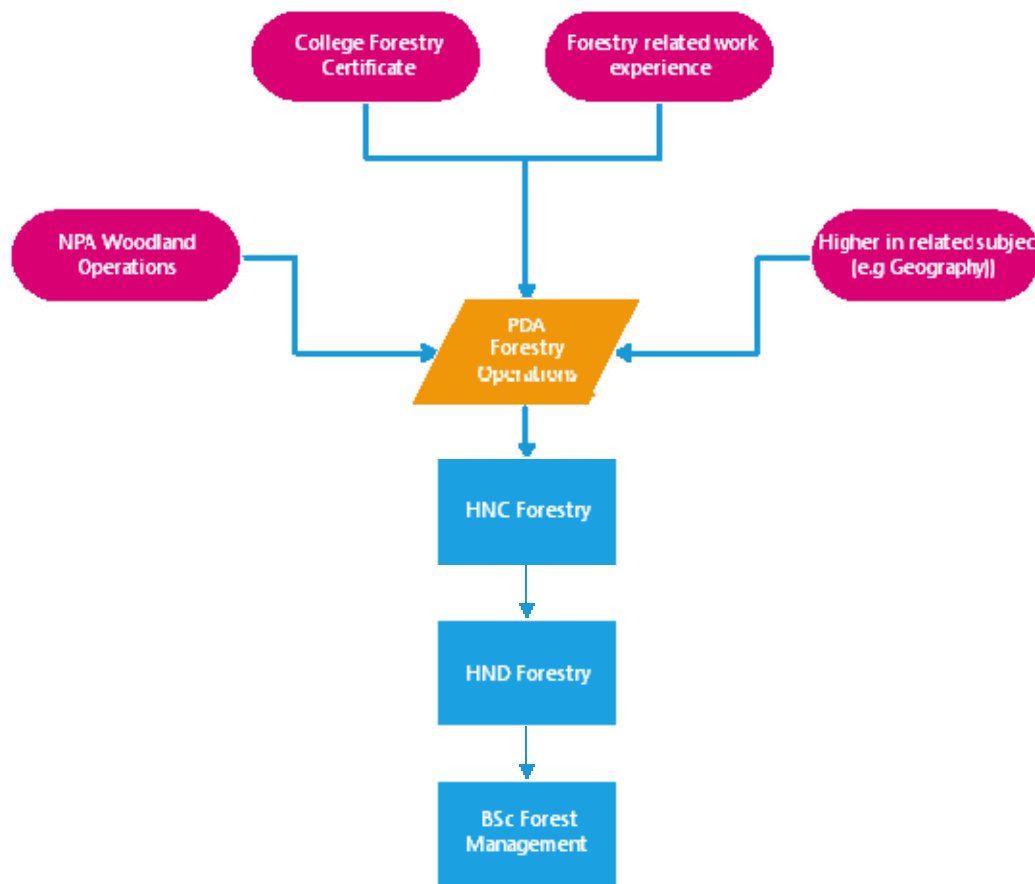
- 1 Analyse geographic, climatic and geological information and use this to recommend forestry practice
- 2 Use Ecological Site Classification (ESC) to assess tree species and native woodland type suitability on the basis of ESC climatic variables and on-site soil and vegetation assessment
- 3 Produce a collection of woody plant species or cultivars, accurately labelled according to the binomial system
- 4 Explain a range of plant physiological processes and the factors affecting the performance of these processes and how they impact on plant growth
- 5 Describe the common woodland ecosystems found in the United Kingdom and explain the abiotic and biotic factors involved in their development
- 6 Evaluate options and develop a plan for the establishment of a woodland, providing operational details for ground preparation, crop protection and planting
- 7 Plan maintenance operations to protect and promote the growth and development of a newly established woodland
- 8 Evaluate the implementation of the current employment and health and safety legislation in a workplace
- 9 Complete measurement required to assess felled and standing timber volumes, applying standard conventions and methods
- 10 Analyse the measurements and carry out the necessary calculations to estimate basal area, volume and other relevant stand parameters
- 11 Explain the reasons for thinning and the components of a thinning regime
- 12 Accurately calculate thinning yield and demonstrate a thinning control operation
- 13 Evaluate the uses of production forecasting in forestry
- 14 Evaluate site conditions, crop characteristics and constraints in relation to a planned harvesting operation
- 15 Develop an operational harvesting plan, identifying harvesting machinery and working methods that are appropriate to the forest stand, relevant constraints and which meet health and safety requirements

4 Recommended entry to the qualification

Entry to this qualification is at the discretion of the centre. The following information on prior knowledge, skills, experience or qualifications that provide suitable preparation for this qualification has been provided by the Qualification Design Team as guidance only.

Learners would benefit from having attained the skills, knowledge and understanding required by one or more of the following or equivalent qualifications and/or experience:

- ◆ NPA Woodland Operations
- ◆ Certificate in Forestry
- ◆ Higher level study in a related area (eg, Biology, Geography or Environmental Science)
- ◆ Experience of working within the forestry and/or land based sector



4.1 Core Skills entry profile

The Core Skill entry profile provides a summary of the associated assessment activities that exemplify why a particular level has been recommended for this qualification. The information would be used to identify if additional learning support needs to be put in place for learners whose Core Skills profile is below the recommended entry level or whether learners should be encouraged to do an alternative level or learning programme.

Core Skill	Recommended SCQF entry profile	Associated assessment activities
Communication	5	Written/oral reports, research
Numeracy	5	Yield and timber volume calculations
Information and Communication Technology (ICT)	5	Research, production of reports, mapping.
Problem Solving	6	Adapting to changes circumstances and operating in a real working environment
Working with Others	6	Team work and planning

5 Additional benefits of the qualification in meeting employer needs

This qualification was designed to meet a specific purpose and what follows are details on how that purpose has been met through mapping of the units to the aims of the qualification. Through meeting the aims, additional value has been achieved by linking the unit standards with those defined in national occupational standards and/or trade/professional body requirements. In addition, significant opportunities exist for learners to develop the more generic skill, known as Core Skills through doing this qualification.

5.1 Mapping of qualification aims to units

Code	Unit title	Aims														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
F3YW 34	Forestry: Forest Science	X	X	X	X	X	X									
F3YC 34	Establishment of Woodland					X	X	X								
F3YD 34	Forest Harvesting														X	X
F3YF 34	Forest Mensuration and Thinning Control									X	X	X	X			
F0VP 34	Employment and Health and Safety Legislation for the Land Based Industries								X							

5.2 Mapping of National Occupational Standards (NOS)

Code	Unit title	National Occupational Standard — Treeworks	National Occupational Standard — Trees and Timber Management
F3YW 34	Forestry: Forest Science	T3	CU91
F3YC 34	Establishment of Woodland	T3, CU76	T38, T40, CU82, CU91, CU147
F3YD 34	Forest Harvesting	CU101	T39, CU91, CU101, CU106, CU147
F3YF 34	Forest Mensuration and Thinning Control		CU101
F0VP 34	Employment and Health and Safety Legislation for the Land Based Industries	CU3, A	T38, T39, CU106

5.3 Mapping of Core Skills development opportunities across the qualification

Unit code	Unit title	Communication			Numeracy		ICT		Problem Solving			Working with Others	
		Written (Reading)	Written (Writing)	Oral	Using Number	Using Graphical Information	Accessing Information	Providing/Creating Information	Critical Thinking	Planning and Organising	Reviewing and Evaluating	Working Co-operatively with Others	Reviewing Co-operative Contribution
F3YW 34	Forest Science	Signposted											
F3YD 34	Forest Harvesting	Signposted			Signposted							Signposted	
F0VP 34	Employment and Health and Safety Legislation for Land Based Industries	Signposted					Signposted		Signposted			Signposted	
F3YF 34	Forest Mensuration and Thinning Control	Signposted			Signposted		Signposted					Signposted	
F3YC 34	Establishment of Woodland	Signposted					Signposted		Signposted			Signposted	

5.4 Assessment strategy for the qualification

Unit	Assessment			
	Outcome 1	Outcome 2	Outcome 3	Outcome 4
Forest Science	Report	Sample collection	Open-book assessment	
Forest Harvesting	Project plan			
Employment and Health and Safety Legislation for Land Based Industries	Report			
Forest Mensuration and Thinning Control	Practical field assessment and report	Field based exercise and project report		Restricted response questions
Establishment of Woodland	Project			

6 Guidance on approaches to delivery and assessment

The PDA in Forestry at SCQF Level 7 is designed to provide learners with a practical qualification which reflects the 'on the ground' requirements of the sector. As such the qualification should be delivered and assessed in a way that reflects this purpose.

The award is based on practical exercises to build up knowledge, understanding and analysis skills for the working environment as well as research and evaluative skills for management. This means that learning is through actual practical exercises relevant to the work situation.

6.1 Sequencing/integration of units

It is recommended that the PDA be delivered over one year, with practical field weeks/visits as appropriate. Learners could start on *Forest Science* and *Forest Mensuration and Thinning Control* first, before moving on to complete the remaining mandatory unit in the second semester alongside one of the option units.

It is however recommended that the field work for *Forest Science* commence in late summer (eg, end of August).

6.2 Recognition of prior learning

SQA recognises that learners gain knowledge and skills acquired through formal, non-formal and informal learning contexts.

In some instances, a full group award may be achieved through the recognition of prior learning. However, it is unlikely that a learner would have the appropriate prior learning and experience to meet all the requirements of a full group award.

The recognition of prior learning may **not** be used as a method of assessing in the following types of units and assessments:

- ◆ HN Graded Units
- ◆ Course and/or external assessments
- ◆ Other integrative assessment units (which may or not be graded)
- ◆ Certain types of assessment instruments where the standard may be compromised by not using the same assessment method outlined in the unit
- ◆ Where there is an existing requirement for a license to practice
- ◆ Where there are specific health and safety requirements
- ◆ Where there are regulatory, professional or other statutory requirements
- ◆ Where otherwise specified in an assessment strategy

More information and guidance on the *Recognition of Prior Learning* (RPL) may be found on our website www.sqa.org.uk.

The following sub-sections outline how existing SQA unit(s) may contribute to this group award. Additionally, they also outline how this group award may be recognised for professional and articulation purposes.

6.2.1 Articulation and/or progression

Upon successful completion of the PDA in Forest Operations, learner will be able to progress to the HNC/D Forestry and potentially following completion of the HND to the UHI BSc (Hons) in Forest Management.

6.2.2 Professional recognition

Completion of the PDA would allow articulation to membership of the Institute of Chartered Foresters (ICF) at the appropriate level.

6.3 Opportunities for e-assessment

The PDA Forestry Operations has been designed to suit distance learning students. The assessments for all units within this course can hence be submitted electronically. However, field weeks/visits will be required for some of the field research and skills development.

6.4 Support materials

A **list of existing ASPs** is available to view on SQA's website.

6.5 Resource requirements

Learners should have access to an appropriate VLE if studying remotely, and will also require access to appropriate sites and facilities for field work and soil sample testing.

7 General information for centres

Equality and inclusion

The unit specifications making up this group award have been designed to ensure that there are no unnecessary barriers to learning or assessment. The individual needs of learners will be taken into account when planning learning experiences, selecting assessment methods or considering alternative evidence. Further advice can be found on our website www.sqa.org.uk/assessmentarrangements.

Internal and external verification

All assessments used within this/these qualification(s) should be internally verified, using the appropriate policy within the centre and the guidelines set by SQA.

External verification will be carried out by SQA to ensure that internal assessment is within the national guidelines for these qualifications.

Further information on internal and external verification can be found in *SQA's Guide to Assessment* (www.sqa.org.uk/GuideToAssessment).

8 Glossary of terms

Embedded Core Skills: is where the assessment evidence for the unit also includes full evidence for complete Core Skill or Core Skill components. A learner successfully completing the unit will be automatically certificated for the Core Skill. (This depends on the unit having been successfully audited and validated for Core Skills certification.)

Finish date: The end of a group award's lapsing period is known as the finish date. After the finish date, the group award will no longer be live and the following applies:

- ◆ learners may not be entered for the group award
- ◆ the group award will continue to exist only as an archive record on the Awards Processing System (APS)

Lapsing date: When a group award is entered into its lapsing period, the following will apply:

- ◆ the group award will be deleted from the relevant catalogue
- ◆ the group award specification will remain until the qualification reaches its finish date at which point it will be removed from SQA's website and archived
- ◆ no new centres may be approved to offer the group award
- ◆ centres should only enter learners whom they expect to complete the group award during the defined lapsing period

SQA credit value: The credit value allocated to a unit gives an indication of the contribution the unit makes to an SQA group award. An SQA credit value of 1 given to an SQA unit represents approximately 40 hours of programmed learning, teaching and assessment.

SCQF: The Scottish Credit and Qualification Framework (SCQF) provides the national common framework for describing all relevant programmes of learning and qualifications in Scotland. SCQF terminology is used throughout this guide to refer to credits and levels. For further information on the SCQF visit the SCQF website at www.scqf.org.uk.

SCQF credit points: SCQF credit points provide a means of describing and comparing the amount of learning that is required to complete a qualification at a given level of the Framework. One National Unit credit is equivalent to 6 SCQF credit points. One National Unit credit at Advanced Higher and one Higher National Unit credit (irrespective of level) is equivalent to 8 SCQF credit points.

SCQF levels: The level a qualification is assigned within the framework is an indication of how hard it is to achieve. The SCQF covers 12 levels of learning. HNCs and HNDs are available at SCQF levels 7 and 8 respectively. Higher National Units will normally be at levels 6–9 and graded units will be at level 7 and 8. National Qualification Group Awards are available at SCQF levels 2–6 and will normally be made up of National Units which are available from SCQF levels 2–7.

Subject unit: Subject units contain vocational/subject content and are designed to test a specific set of knowledge and skills.

Signposted Core Skills: refers to opportunities to develop Core Skills arise in learning and teaching but are not automatically certificated.

History of changes

It is anticipated that changes will take place during the life of the qualification and this section will record these changes. This document is the latest version and incorporates the changes summarised below. Centres are advised to check SQA's APS Navigator to confirm they are using the up to date qualification structure.

NOTE: Where a unit is revised by another unit:

- ◆ No new centres may be approved to offer the unit which has been revised.
- ◆ Centres should only enter learners for the unit which has been revised where they are expected to complete the unit before its finish date.

Version Number	Description	Date

Acknowledgement

SQA acknowledges the valuable contribution that Scotland's colleges have made to the development of this qualification.

9 General information for learners

This section will help you decide whether this is the qualification for you by explaining what the qualification is about, what you should know or be able to do before you start, what you will need to do during the qualification and opportunities for further learning and employment.

This award is suitable for a wide range of learners including:

- ◆ Existing practitioners in the industry who wish to upskill or formalise their experience/qualifications
- ◆ Learners wishing to become self-employed or start up a small enterprise within the forestry sector
- ◆ Learners with experience or enthusiasm for the land based sector

The forest industry is a stable and important part of the rural economy. Recent governments have supported the expansion of the industry and emphasized the significance of the industry to the rural economy. Learners may gain employment as:

- ◆ Foresters
- ◆ Tree officers
- ◆ Land-based sector officers
- ◆ Estate foresters
- ◆ Forest foremen/supervisors
- ◆ Forest supervisors/managers

The PDA Forest Operations course is designed around core values and concepts such as: sustainability, biodiversity, community engagement and social forestry, as well as providing an introduction to what is a technologically fast moving and demanding industry. You will develop knowledge and skills so that you can meet the challenges of a diverse forest sector. You will gain technical expertise in the main areas of forest management — harvesting, survey and data collection, silviculture, data analysis, and operational planning, work programming, financial and supervisory controls and policy and legislation. Allied to this technical expertise will be the transferable skills of team working, *Problem Solving*, *Numeracy* and *Communication*.

The PDA is an award that has been designed not only as a stepping stone to the HNC, but also to meet the needs for forest supervisors and contract team leaders within the forest industry. This will also allow entry onto a career path which can be supplemented with part-time study whilst in employment and progression through CPD.