

# **Pearson BTEC Level 4 HNC Diploma in Horticulture**

# **Pearson BTEC Level 5 HND Diploma in Horticulture**

## **Specification**

Issue 4

## **Edexcel, BTEC and LCCI qualifications**

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**This specification is Issue 4.** Due to the replacement of the Qualifications and Credit Framework (QCF) by the Regulated Qualifications Framework (RQF), references to the QCF and to its predecessor, the National Qualifications Framework (NQF) have been removed from this specification. In addition, Pearson has assigned Total Qualification Time (TQT) in hours to this qualification; this is covered in the section entitled '*Programme design and delivery*' of this specification.

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## **Pearson BTEC Level 4 HNC Diploma in Horticulture**

## **Pearson BTEC Level 5 HND Diploma in Horticulture**

The BTEC HNCs (Higher National Certificates) are at level 4 and are a minimum of 120 credits in size. They have been nested within the structures of the BTEC HNDs (Higher National Diplomas).

BTEC HNDs are level 5 qualifications. They are a minimum of 240 credits in size.

The qualifications are Intermediate level qualifications on the Framework for Higher Education Qualifications (FHEQ). Progression to BTEC Higher Nationals continues to be from level 3 qualifications. Progression from BTEC Higher Nationals will normally be to qualifications at level 6. Learners' progression routes do not necessarily involve qualifications at every level.

As a nested qualification the HNC is an embedded component of the HND. However, it can be taken as a stand-alone qualification.

If a learner enrolls for an HNC they would be eligible to gain a grade for the HNC. If they then move onto an HND, the learner is graded on their HND performance. The grade for the HND will include units from the previously achieved HNC.

If a learner opts to take an HND from the start, then on successful completion of the HND they will receive one grade for the HND achievement only.

If a learner opts to take an HND from the start but later chooses to revert to an HNC programme, then on successful completion of the HNC they will receive a grade for the HNC achievement only.

## BTEC Higher Nationals within the RQF and FHEQ

RQF/FHEQ level	Progression opportunities and examples of qualifications within each level
<b>8</b>	PhD/DPhil Professional doctorates (credit based), e.g. EdD
<b>7</b>	Master's degrees Postgraduate diplomas Postgraduate Certificate in Education (PGCE)
<b>6</b>	Bachelor's degrees, e.g. BA, BSc Professional Graduate Certificate in Education Graduate certificates and diplomas
<b>5</b>	<b>BTEC HNDs</b> (Higher National Diplomas) Foundation Degrees, e.g. FdA, FdSc Diplomas of Higher Education (Dip HE)
<b>4</b>	<b>BTEC HNCs</b> (Higher National Certificates) Certificates of Higher Education (Cert HE) Level 4 Work-based Diplomas
<b>3</b>	BTEC Level 3 Extended Diplomas BTEC Level 3 Diplomas BTEC Level 3 Subsidiary Diplomas BTEC Level 3 Certificates GCE Advanced Level Level 3 Work-based Diplomas Advanced Diplomas

# Contents

<b>Qualification titles covered by this specification</b>	<b>1</b>
<b>Qualification Numbers</b>	<b>1</b>
<b>Introduction</b>	<b>2</b>
<b>Structure of the qualifications</b>	<b>2</b>
BTEC Level 4 HNC	2
BTEC Level 5 HND	2
<b>Rules of combination for BTEC Levels 4 and 5 Higher National qualifications in Horticulture</b>	<b>3</b>
<b>Key features</b>	<b>16</b>
Progression from the BTEC Level 4 HNC	17
Progression from the BTEC Level 5 HND	17
Professional body recognition	18
National Occupational Standards	18
Qualification Frameworks for Higher National Diplomas	18
<b>Teaching, learning and assessment</b>	<b>19</b>
Unit format	19
Learning and assessment	21
Grading Higher National units	22
Calculation of the qualification grade	23
Recognition of Prior Learning	25
<b>Quality assurance of BTEC Higher Nationals</b>	<b>27</b>
<b>Programme design and delivery</b>	<b>29</b>
Mode of delivery	30
Resources	31
Delivery approach	31
Meeting local needs	31
<b>Access and recruitment</b>	<b>33</b>
Restrictions on learner entry	33
Equality Act 2010 and Pearson equality policy	34

English language expectations	34
How to obtain National Occupational Standards	35
<b>Professional development and training</b>	<b>36</b>
<b>Annexe A</b>	<b>38</b>
Qualification Requirements	38
<b>Annexe B</b>	<b>44</b>
National Occupational Standards (NOS)	44
<b>Annexe C</b>	<b>54</b>
Grade descriptors	54
<b>Annexe D</b>	<b>56</b>
Unit mapping overview	56
Unit mapping in depth	59
<b>Annexe E</b>	<b>66</b>
Calculation of the qualification grade	66

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# Qualification titles covered by this specification

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**Pearson BTEC Level 4 HNC Diploma in Horticulture**

**Pearson BTEC Level 4 HNC Diploma in Horticulture (Garden Design)**

**Pearson BTEC Level 4 HNC Diploma in Horticulture (Sports Turf Management)**

**Pearson BTEC Level 5 HND Diploma in Horticulture**

**Pearson BTEC Level 5 HND Diploma in Horticulture (Garden Design)**

**Pearson BTEC Level 5 HND Diploma in Horticulture (Sports Turf Management)**

The Qualification Numbers (QNs) for these qualifications are listed below.

These qualification titles are as they will appear on learners' certificates. Learners need to be made aware of this when they are recruited by the centre and registered with Pearson. Providing this happens, centres are able to describe the programme of study leading to the award of the qualification in different ways to suit the medium and the target audience.

The Quality Assurance Agency for Higher Education (QAA) has produced guidelines for centres in preparing programme specifications (reference *Guidelines for preparing programme specifications: UK Quality Code for Higher Education, Part A Chapter A3.*)

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## Qualification Numbers

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The qualification and unit codes will appear on learners' final certification documentation.

The QNs for qualifications in this publication are:

600/2132/9      Pearson BTEC Level 4 HNC Diploma in Horticulture

600/1719/3      Pearson BTEC Level 5 HND Diploma in Horticulture

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# Introduction

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This specification contains the units and associated guidance for the Pearson BTEC Level 4 HNC Diplomas in Horticulture and the Pearson BTEC Level 5 HND Diplomas in Horticulture.

Each unit sets out the required learning outcomes, assessment criteria and content and may also include advice regarding essential delivery and assessment strategies.

This document also contains details of the teaching, learning, assessment and quality assurance of these qualifications. It includes advice about our policies regarding access to our qualifications, the design of programmes of study and delivery modes.

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## Structure of the qualifications

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### **BTEC Level 4 HNC**

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The Pearson BTEC Level 4 HNC Diploma in Horticulture is a qualification with a minimum of 120 credits of which between 45 and 60 credits are mandatory (depending on pathway).

The BTEC Level 4 HNC programme must contain a minimum of 65 credits at level 4.

### **BTEC Level 5 HND**

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The Pearson BTEC Level 5 HND Diploma in Horticulture is a qualification with a minimum of 240 credits of which 60 credits are mandatory.

The BTEC Level 5 HND programme must contain a minimum of 125 credits at level 5 or above.



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# Rules of combination for BTEC Levels 4 and 5 Higher National qualifications in Horticulture

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The rules of combination specify the:

- total credit value of the qualification
- minimum credit to be achieved at the level of the qualification
- mandatory core unit credit
- specialist unit credit
- maximum credit that can be centre devised or imported from other BTEC Higher National qualifications accredited from 2010.

When combining units for a BTEC Higher National qualification it is the centre's responsibility to ensure that the following rules of combination are adhered to:

## **Pearson BTEC Level 4 HNC in Horticulture**

- 1 Qualification credit value: a minimum of 120 credits. (A maximum of 55 credits may be at level 5.)
- 2 Minimum credit to be achieved at the level of the qualification (level 4): 65 credits.
- 3 Mandatory core unit credit: 45-60 credits (depending on pathway).
- 4 Specialist unit credit: 60-75 credits (depending on pathway).
- 5 A maximum of 30 credits can be centre devised or imported from other BTEC Higher National qualifications accredited from 2010 to meet local needs. Level rules and mandatory core units must not be changed.
- 6 **Total Qualification Time** Higher National Certificate (HNC) = 1,200 hours
- 7 **Total Guided Learning (GL)** Higher National Certificate (HNC) = 480 hours

## **Pearson BTEC Level 5 HND in Horticulture**

- 1 Qualification credit value: a minimum of 240 credits.
- 2 Minimum credit to be achieved at the level of the qualification (level 5) or above: 125 credits.
- 3 Mandatory core unit credit: 60 credits.
- 4 Specialist unit credit: 180 credits.
- 5 The requirements of the HNC have to be met.
- 6 A maximum of 60 credits can be centre devised or imported from other BTEC Higher National qualifications accredited from 2010 to meet local needs. Level rules and mandatory core units must not be changed.
- 7 **Total Qualification Time** Higher National Diploma (HND) = 2,400 hours
- 8 **Total Guided Learning (GL)** Higher National Diploma (HND) = 960 hours

## Structure of the Pearson BTEC Level 4 HNC in Horticulture

The Pearson BTEC Level 4 HNC in Horticulture is a 120-credit qualification that consists of 45 mandatory credits, including a minimum of 15 credits from Group A and remaining credits from Groups A, B or C (subject to a maximum of 15 credits from Group C) that together provide for a combined minimum of 120 credits.

Unit number	Mandatory core units – both units must be taken	Unit credit	Unit level
1	Principles of Plant and Soil Science	15	5
3	Project Management for Land-based Industries	15	4
	<b>Group A – choose units with a minimum credit value of 15 credits</b>		
4	Enterprise and Financial Management for Land-based Industries	15	5
5	Human Resource Management	15	4
	<b>Group B</b>		
6	Research Project	20	5
7	Plant Environmental Adaptation and Physiology	15	5
8	Plant Selection and Establishment	15	4
9	Environmental Management	15	5
10	Biological Principles	15	5
11	Horticultural Technology	15	5
12	Garden Design Principles	15	5
13	Fruit and Vegetable Production Management	15	4
14	Nursery Stock Production	15	5
15	Hard Landscape Principles and Practice	15	5
16	Public Horticulture	15	4
17	Landscape and Garden Maintenance	15	5
18	Interior Landscape and Plant Displays	15	5
19	Plant Health and Environmental Relationships	15	5
20	Understanding Organic Soil Management	15	5
21	Organic Principles and Practice	15	5
22	Golf Course Design Principles	15	5
23	Management of Historic Parks and Gardens	15	5
24	Growing Media	15	4

<b>Unit number</b>	<b>Group B (continued)</b>	<b>Unit credit</b>	<b>Unit level</b>
25	Manage the Identification and Classification of Plants	15	4
26	Plan and Manage the Movement of Plants	15	5
27	Plan and Manage the Growth and Development of Crops	15	4
28	Plan and Manage the Harvesting, Preparation and Storage of Crops	15	4
29	Plan and Manage Protected Crops	15	4
	<b>Group C – choose units with a maximum credit value of 15</b>		
2	Work-based Experience	15	5
31	Small Business Enterprise	15	5
32	Sustainable Development	15	5
33	Research Methods for Land-based Industries	15	4
34	Land-based Business Planning	15	4
35	Event Management for Land-based Industries	15	4
30	Business Environment	15	4
36	Mechanisation for Land-based Industries	15	5
37	Land Use Issues and Regulation	15	5
38	Build and Maintain Effective Customer Relations	15	4
39	Health and Safety in the Land-based Workplace	15	4
40	Waste Management	15	5
41	Develop and Implement Plans for the Storage and Disposal of Inorganic Waste	15	4
59	Arboricultural Management	15	5

**The BTEC Level 4 HNC programme must contain a minimum of 65 credits at level 4.**

## Structure of the Pearson BTEC Level 4 HNC in Horticulture (Garden Design)

The Pearson BTEC Level 4 HNC in Horticulture (Garden Design) is a 120-credit qualification that consists of 60 mandatory core credits and remaining credits from Groups A or B (subject to a maximum of 15 credits from Group B) that together provide for a combined minimum of 120 credits.

Unit number	Mandatory core units – all three units must be taken	Unit credit	Unit level
8	Plant Selection and Establishment	15	4
42	Professional Garden Design Practice	15	4
43	Major Integrated Garden Design Project	30	5
	<b>Group A</b>		
1	Principles of Plant and Soil Science	15	5
6	Research Project	20	5
7	Plant Environmental Adaptation and Physiology	15	5
9	Environmental Management	15	5
10	Biological Principles	15	5
11	Horticultural Technology	15	5
12	Garden Design Principles	15	5
15	Hard Landscape Principles and Practice	15	5
17	Landscape and Garden Maintenance	15	5
18	Interior Landscape and Plant Displays	15	5
19	Plant Health and Environmental Relationships	15	5
20	Understanding Organic Soil Management	15	5
21	Organic Principles and Practice	15	5
26	Plan and Manage the Movement of Plants	15	5
44	Historical Influence in Garden Design	15	5
45	Graphic Skills for Garden Designers	15	5
46	Garden Styles and their Influence	10	4
47	Advanced Garden Design	10	4
48	Landscape Design Process	15	5
49	Planting Design	15	4
	<b>Group B</b>		
2	Work-based Experience	15	5
3	Project Management for Land-based Industries	15	4

<b>Unit number</b>	<b>Group B (continued)</b>	<b>Unit credit</b>	<b>Unit level</b>
4	Enterprise and Financial Management for Land-based Industries	15	5
5	Human Resource Management	15	4
30	Business Environment	15	4
31	Small Business Enterprise	15	5
32	Sustainable Development	15	5
33	Research Methods for Land-based Industries	15	4
34	Land-based Business Planning	15	4
36	Mechanisation for Land-based Industries	15	5
38	Build and Maintain Effective Customer Relations	15	4
39	Health and Safety in the Land-based Workplace	15	4
50	Contract Documentation and Management for Land-based Industries	15	5
51	Principles of Ecology	15	4
59	Arboricultural Management	15	5

**The BTEC Level 4 HNC programme must contain a minimum of 65 credits at level 4.**

## Structure of the Pearson BTEC Level 4 HNC in Horticulture (Sports Turf Management)

The Pearson BTEC Level 4 HNC in Horticulture (Sports Turf Management) is a 120-credit qualification that consists of 45 mandatory credits including a minimum of 15 credits from Group A and remaining credits from Groups A, B or C (subject to a maximum of 15 credits from Group C) that together provide for a combined minimum of 120 credits.

Unit number	Mandatory core units – both units must be taken	Unit credit	Unit level
3	Project Management for Land-based Industries	15	4
52	Quality and Performance Standards for Turf	15	5
	<b>Group A – choose units with a minimum credit value of 15 credits</b>		
4	Enterprise and Financial Management for Land-based Industries	15	5
5	Human Resource Management	15	4
	<b>Group B</b>		
1	Principles of Plant and Soil Science	15	5
6	Research Project	20	5
7	Plant Environmental Adaptation and Physiology	15	5
9	Environmental Management	15	5
10	Biological Principles	15	5
11	Horticultural Technology	15	5
19	Plant Health and Environmental Relationships	15	5
22	Golf Course Design Principles	15	5
53	Construction and Maintenance of Sports Turf Surfaces	15	4
54	Mechanisation Management – Turf	10	4
55	Grassland Management	15	4
56	Non-Grass Playing Surfaces	15	5
57	Golf Course Planning	15	4
58	Turf Irrigation Systems	15	4

<b>Unit number</b>	<b>Group C – choose units with a maximum credit value of 15</b>	<b>Unit credit</b>	<b>Unit level</b>
2	Work-based Experience	15	5
30	Business Environment	15	4
31	Small Business Enterprise	15	5
32	Sustainable Development	15	5
33	Research Methods for Land-based Industries	15	4
34	Land-based Business Planning	15	4
35	Event Management for Land-based Industries	15	4
36	Mechanisation for Land-based Industries	15	5
39	Health and Safety in the Land-based Workplace	15	4

**The BTEC Level 4 HNC programme must contain a minimum of 65 credits at level 4.**

## Structure of the Pearson BTEC Level 5 HND in Horticulture

The Pearson BTEC Level 5 HND in Horticulture is a 240-credit qualification that consists of 60 mandatory credits, including a minimum of 15 credits from Group A and remaining credits from Groups A, B or C (subject to a maximum of 45 credits from Group C) that together provide for a combined minimum of 240 credits.

Unit number	Mandatory core units – all three units must be taken	Unit credit	Unit level
1	Principles of Plant and Soil Science	15	5
2	Work-based Experience	15	5
3	Project Management for Land-based Industries	15	4
	<b>Group A – choose units with a minimum credit value of 15</b>		
4	Enterprise and Financial Management for Land-based Industries	15	5
5	Human Resource Management	15	4
	<b>Group B</b>		
6	Research Project	20	5
7	Plant Environmental Adaptation and Physiology	15	5
8	Plant Selection and Establishment	15	4
9	Environmental Management	15	5
10	Biological Principles	15	5
11	Horticultural Technology	15	5
12	Garden Design Principles	15	5
13	Fruit and Vegetable Production Management	15	4
14	Nursery Stock Production	15	5
15	Hard Landscape Principles and Practice	15	5
16	Public Horticulture	15	4
17	Landscape and Garden Maintenance	15	5
18	Interior Landscape and Plant Displays	15	5
19	Plant Health and Environmental Relationships	15	5
20	Understanding Organic Soil Management	15	5
21	Organic Principles and Practice	15	5
22	Golf Course Design Principles	15	5
23	Management of Historic Parks and Gardens	15	5



<b>Unit number</b>	<b>Group B (continued)</b>	<b>Unit credit</b>	<b>Unit level</b>
24	Growing Media	15	4
25	Manage the Identification and Classification of Plants	15	4
26	Plan and Manage the Movement of Plants	15	5
27	Plan and Manage the Growth and Development of Crops	15	4
28	Plan and Manage the Harvesting, Preparation and Storage of Crops	15	4
29	Plan and Manage Protected Crops	15	4
	<b>Group C – choose units with a maximum credit value of 45</b>		
30	Business Environment	15	4
31	Small Business Enterprise	15	5
32	Sustainable Development	15	5
33	Research Methods for Land-based Industries	15	4
34	Land-based Business Planning	15	4
35	Event Management for Land-based Industries	15	4
36	Mechanisation for Land-based Industries	15	5
37	Land Use Issues and Regulation	15	5
38	Build and Maintain Effective Customer Relations	15	4
39	Health and Safety in the Land-based Workplace	15	4
40	Waste Management	15	5
41	Develop and Implement Plans for the Storage and Disposal of Inorganic Waste	15	4
59	Arboricultural Management	15	5

**The BTEC Level 5 HND programme must contain a minimum of 125 credits at level 5.**

## Structure of the Pearson BTEC Level 5 HND in Horticulture (Garden Design)

The Pearson BTEC Level 5 HND in Horticulture (Garden Design) is a 240-credit qualification that consists of 60 mandatory core credits and remaining credits from Groups A or B (subject to a maximum of 45 credits from Group B) that together provide for a combined minimum of 240 credits.

Unit number	Mandatory core units – all three units must be taken	Unit credit	Unit level
8	Plant Selection and Establishment	15	4
42	Professional Garden Design Practice	15	4
43	Major Integrated Garden Design Project	30	5
	<b>Group A</b>		
1	Principles of Plant and Soil Science	15	5
6	Research Project	20	5
7	Plant Environmental Adaptation and Physiology	15	5
9	Environmental Management	15	5
10	Biological Principles	15	5
11	Horticultural Technology	15	5
12	Garden Design Principles	15	5
15	Hard Landscape Principles and Practice	15	5
17	Landscape and Garden Maintenance	15	5
18	Interior Landscape and Plant Displays	15	5
19	Plant Health and Environmental Relationships	15	5
20	Understanding Organic Soil Management	15	5
21	Organic Principles and Practice	15	5
26	Plan and Manage the Movement of Plants	15	5
44	Historical Influence in Garden Design	15	5
45	Graphic Skills for Garden Designers	15	5
46	Garden Styles and their Influence	10	4
47	Advanced Garden Design	10	4
48	Landscape Design Process	15	5
49	Planting Design	15	4
	<b>Group B – Learners can select up to a maximum of 45 credits from this group.</b>		
2	Work-based Experience	15	5
3	Project Management for Land-based Industries	15	4

<b>Unit number</b>	<b>Group B (continued)</b>	<b>Unit credit</b>	<b>Unit level</b>
4	Enterprise and Financial Management for Land-based Industries	15	5
5	Human Resource Management	15	4
30	Business Environment	15	4
31	Small Business Enterprise	15	5
32	Sustainable Development	15	5
33	Research Methods for Land-based Industries	15	4
34	Land-based Business Planning	15	4
36	Mechanisation for Land-based Industries	15	5
38	Build and Maintain Effective Customer Relations	15	4
39	Health and Safety in the Land-based Workplace	15	4
50	Contract Documentation and Management for Land-based Industries	15	5
51	Principles of Ecology	15	4
59	Arboricultural Management	15	5

**The BTEC Level 5 HND programme must contain a minimum of 125 credits at level 5.**

## Structure of the Pearson BTEC Level 5 HND in Horticulture (Sports Turf Management)

The Pearson BTEC Level 5 HND in Horticulture (Sports Turf Management) is a 240-credit qualification that consists of 60 mandatory credits including 15 credits from Group A and remaining credits from Groups A, B or C (subject to a maximum of 45 credits from Group C) that together provide for a combined minimum of 240 credits.

Unit number	Mandatory core units – all three units must be taken	Unit credit	Unit level
2	Work-based Experience	15	5
3	Project Management for Land-based Industries	15	4
52	Quality and Performance Standards for Turf	15	5
	<b>Group A – choose units with a minimum credit value of 15 credits</b>		
4	Enterprise and Financial Management for Land-based Industries	15	5
5	Human Resource Management	15	4
	<b>Group B</b>		
1	Principles of Plant and Soil Science	15	5
6	Research Project	20	5
7	Plant Environmental Adaptation and Physiology	15	5
9	Environmental Management	15	5
10	Biological Principles	15	5
11	Horticultural Technology	15	5
19	Plant Health and Environmental Relationships	15	5
22	Golf Course Design Principles	15	5
53	Construction and Maintenance of Sports Turf Surfaces	15	4
54	Mechanisation Management – Turf	10	4
55	Grassland Management	15	4
56	Non-grass Playing Surfaces	15	5
57	Golf Course Planning	15	4
58	Turf Irrigation Systems	15	4

<b>Unit number</b>	<b>Group C – choose units with a maximum credit value of 45</b>		
30	Business Environment	15	4
31	Small Business Enterprise	15	5
32	Sustainable Development	15	5
33	Research Methods for Land-based Industries	15	4
34	Land-based Business Planning	15	4
35	Event Management for Land-based Industries	15	4
36	Mechanisation for Land-based Industries	15	5
39	Health and Safety in the Land-based Workplace	15	4

**The BTEC Level 5 HND programme must contain a minimum of 125 credits at level 5.**

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# Key features

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BTEC Higher Nationals are designed to provide a specialist vocational programme, linked to professional body requirements and National Occupational Standards where appropriate.

They offer a strong, sector-related emphasis on practical skills development alongside the development of requisite knowledge and understanding.

The qualifications provide a thorough grounding in the key concepts and practical skills required in their sector and their national recognition by employers allows direct progression to employment.

A key progression path for BTEC HNC and HND learners is to the second or third year of a degree or honours degree programme, depending on the match of the BTEC Higher National units to the degree programme in question.

Pearson BTEC Higher Nationals in Horticulture have been developed to focus on:

- the education and training for a range of careers in horticulture and allied land-based industries
- opportunities for those employed within these industries to achieve a nationally recognised level 5 vocationally specific qualification
- opportunities for full-time learners to gain a nationally recognised vocationally specific level 5 qualification to enter employment within these industries at supervisory or management level or to progress to higher education vocational qualifications such as a full-time degree in horticulture or related subject area
- expansion of the knowledge, understanding and skills of learners from a horticultural or allied industry supervisor's or manager's viewpoint
- opportunities for learners to concentrate on the development of higher-level skills in a land-based context; and how their role and that of their business fits within the overall structure of the land-based industries, the national and international economy and the global overview
- opportunities for learners to develop a range of skills, techniques and attributes essential for successful performance in working life.

This qualification meets the needs of the above rationale by:

- giving individuals knowledge, understanding and skills for successful employment in the horticultural and allied industries
- enabling progression to an undergraduate degree or further professional qualifications in related areas
- providing opportunities for specialist study relevant to individual vocations and contexts
- developing the individual's ability in the horticultural and allied industries through effective use and combination of the knowledge and skills gained in different parts of the programme
- developing a range of skills and techniques, personal qualities and attributes essential for successful performance in working life and thereby enabling learners to make an immediate contribution to employment

- providing flexibility, knowledge, skills and motivation as a basis for future studies and career development in the horticultural and allied industries.

## **Progression from the BTEC Level 4 HNC**

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The Pearson BTEC Level 4 HNC in Horticulture provides specialist work-related programmes of study that cover the key knowledge, understanding and practical skills required in the amenity and production horticulture management sectors and also offers specialist emphasis through the choice of specialist units.

BTEC Level 4 HNCs provide nationally recognised qualifications offering career progression and professional development for those already in employment and opportunities to progress into higher education. The qualifications are primarily undertaken by part-time learners studying over two years. In some sectors there are opportunities for those wishing to complete an intensive programme of study in a shorter period of time.

This specification gives centres a framework to develop engaging programmes for higher education learners who are clear about the area of employment that they wish to enter.

The Pearson BTEC Level 4 HNC in Horticulture offers a progression route for learners who are employed in the amenity and/or production horticulture management.

## **Progression from the BTEC Level 5 HND**

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The BTEC Level 5 HND provides greater breadth and specialisation than the BTEC Level 4 HNC. BTEC HNDs are followed predominately by full-time learners. They allow progression into or within employment in the amenity and/or production horticulture management sectors, either directly on achievement of the award or following further study to degree level.

The Pearson BTEC Level 5 HND in Horticulture provides opportunities for learners to apply their knowledge and practical skills in the workplace. Full-time learners have the opportunity to do this through formal work placements or part-time employment experience.

The qualification prepares learners for employment in the amenity and/or production horticulture management sectors and will be suitable for learners who have already decided that they wish to enter this area of work. Some adult learners may wish to make the commitment required by this qualification in order to enter a specialist area of employment in amenity and/or production horticulture management or progress into higher education. Other learners may want to extend the specialism that they followed on the BTEC Level 4 HNC programme.

Progression from this qualification may well be into or within employment in the amenity and/or production horticulture management sectors where learners may work towards membership of The Institute of Biology.

## **Professional body recognition**

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The Pearson BTEC Higher Nationals in Horticulture have been developed with career progression and recognition by professional bodies in mind.

Learners who have an HNC/D in Biological Science and who have had experience in responsible work in biological science or its application for at least five years subsequent to seven years prior to the award are eligible to apply for membership of the Institute of Biology.

## **National Occupational Standards**

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BTEC Higher Nationals in Horticulture are designed to relate to the National Occupational Standards in the environmental and land-based sector, which in turn form the basis of the Amenity and Production Horticulture Management Work-based Diplomas. BTEC Higher Nationals do not purport to deliver occupational competence in the sector, which should be demonstrated in a work context. However, the qualifications provide underpinning knowledge for the National Occupational Standards, as well as developing practical skills in preparation for work and possible achievement of Work-based Diplomas in due course.

*Annexe B* contains mapping of the Higher National units in this specification against relevant level 4 Work-based Diplomas where appropriate.

## **Qualification Frameworks for Higher National Diplomas**

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In England, Wales and Northern Ireland, BTEC HNC and HND Diplomas may either be awarded by degree-awarding bodies under a licence from Pearson (which allows them to devise, deliver and award Higher National qualifications themselves), or they may be awarded directly by Pearson, as an awarding body regulated by Ofqual. The majority of BTEC HNC and HND Diplomas are awarded by Pearson. Only those HNC and HND Diplomas that are awarded by degree-awarding bodies are included on the Framework for Higher Education Qualifications (FHEQ) (because this framework comprises qualifications awarded by degree-awarding bodies.) BTEC HNC and HND Diplomas awarded directly by Pearson are qualifications at Level 4 and Level 5 on the Regulated Qualifications Framework and are subject to the academic standards and regulations of Pearson.

Level descriptors have been used to describe the relative intellectual demand, complexity, depth of learning and learner autonomy associated with the level 4 or 5 level of learning and achievement.

QAA subject and qualification benchmark statements have also been used to provide points of reference for each level.

Employers and higher education providers can expect that typical learners studying for the Pearson BTEC Higher Nationals in Horticulture should have developed certain higher level skills and abilities and studied a mandatory curriculum and selected optional specialist units. This detail is contained in the 'Qualification Requirements' in *Annexe A* of this specification.



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# Teaching, learning and assessment

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Learners must achieve a minimum of 120 credits (of which at least 65 must be at level 4) on their programme of learning to be awarded a BTEC Level 4 HNC and a minimum of 240 credits (of which at least 125 must be at level 5 or above) to be awarded a BTEC Level 5 HND.

The assessment of BTEC Higher National qualifications is criterion-referenced and centres are required to assess learners' evidence against published learning outcomes and assessment criteria.

All units will be individually graded as 'pass', 'merit' or 'distinction'. To achieve a pass grade for the unit learners must meet the assessment criteria set out in the specifications. This gives transparency to the assessment process and provides for the establishment of national standards for each qualification.

The units in BTEC Higher National qualifications all have a standard format which is designed to provide guidance on the requirements of the qualification for learners, assessors and those responsible for monitoring national standards.

**NB** Any level 3 units in BTEC Higher National specifications will appear as they are found in the relevant level 3 specifications (minus references to personal, learning and thinking skills [PLTS] and functional skills [FS].) This means that their format and assessment requirements will be slightly different to level 4 and level 5 units. 'Links' within the level 3 units will relate to units found in the level 3 specification and not to those within the level 4 and level 5 specifications.

## Unit format

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Each unit is set out in the following way.

### *Unit title, unit code and credit value*

Each unit is assigned a level, indicating the relative intellectual demand, complexity and depth of study, and learner autonomy. All units and qualifications within the RQF have a level assigned to them, which represents the level of achievement. There are nine levels of achievement, from Entry level to level 8. The level of the unit has been informed by the level descriptors and, where appropriate, the National Occupational Standards (NOS) and/or other sector/professional benchmarks.

Each unit in BTEC Higher National qualifications has a credit value which specifies the number of credits that will be awarded to a learner who has achieved all the learning outcomes of the unit. Learners will be awarded credits for the successful completion of whole units.

### *Aim*

The aim provides a clear summary of the purpose of the unit and is a succinct statement that summarises the learning outcomes of the unit.

### *Unit abstract*

The unit abstract gives the reader an appreciation of the unit in the vocational setting of the qualification, as well as highlighting the focus of the unit. It gives the reader a snapshot of the unit and the key knowledge, skills and understanding gained while studying the unit. The unit abstract also highlights any links to the appropriate vocational sector by describing how the unit relates to that sector.

### *Learning outcomes*

The learning outcomes identify what each learner must do in order to pass the unit. Learning outcomes state exactly what a learner should 'know, understand or be able to do' as a result of completing the unit. Learners must achieve all the learning outcomes in order to pass the unit.

### *Unit content*

The unit content identifies the breadth of knowledge, skills and understanding needed to design and deliver a programme of learning to achieve each of the learning outcomes. This is informed by the underpinning knowledge and understanding requirements of relevant National Occupational Standards (NOS) where appropriate.

Each learning outcome is stated in full and then the key phrases or concepts related to that learning outcome are listed in italics followed by the subsequent range of related topics.

The information below shows how unit content is structured and gives the terminology used to explain the different components within the content.

- Learning outcome: this is given in bold at the beginning of each section of content.
- Italicised sub-heading: it contains a key phrase or concept. This is content which must be covered in the delivery of the unit. Colons mark the end of an italicised sub-heading.
- Elements of content: the elements are in roman text and amplify the sub-heading. The elements must also be covered in the delivery of the unit. Semi-colons mark the end of an element.
- Brackets contain amplification of elements of content which must be covered in the delivery of the unit.
- 'e.g.' is a list of examples used for indicative amplification of an element (that is, the content specified in this amplification that could be covered or that could be replaced by other, similar material).

It is not a requirement of the unit specification that all of the content is assessed.

### *Learning outcomes and assessment criteria*

Each unit contains statements of the evidence that each learner should produce in order to receive a pass.

## Guidance

This section provides additional guidance and amplification related to the unit to support tutors/deliverers and assessors. Its subsections are given below.

- *Links* – sets out possible links between units within the specification. Provides opportunities for the integration of learning, delivery and assessment. Links to relevant National Occupational Standards and Professional Bodies Standards will be highlighted here.
- *Essential requirements* – essential, unique physical and/or staffing resources or delivery/assessment requirements needed for the delivery of this unit are specified here.
- *Employer engagement and vocational contexts* – this is an optional section. Where relevant it offers suggestions for employer contact to enhance the delivery of the unit.

These subsections should be read in conjunction with the learning outcomes, unit content, assessment criteria and the generic grade descriptors.

The centre will be asked to ensure that essential resources are in place when it seeks approval from Pearson to offer the qualification.

## Learning and assessment

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The purpose of assessment is to ensure that effective learning has taken place of the content of each unit. Evidence of this learning, or the application of the learning, is required for each unit. The assessment of the evidence relates directly to the assessment criteria for each unit, supported by the generic grade descriptors.

The process of assessment can aid effective learning by seeking and interpreting evidence to decide the stage that learners have reached in their learning, what further learning needs to take place and how best to do this. Therefore, the process of assessment should be part of the effective planning of teaching and learning by providing opportunities for both the learner and assessor to obtain information about progress towards learning goals.

The assessor and learner must be actively engaged in promoting a common understanding of the assessment criteria and the grade descriptors (what it is they are trying to achieve and how well they achieve it) for further learning to take place. Therefore, learners need constructive feedback and guidance about how they may improve by capitalising on their strengths and clear and constructive comments about their weaknesses and how these might be addressed.

Assessment instruments are constructed within centres. They should collectively ensure coverage of all assessment criteria within each unit and should provide opportunities for the evidencing of all the grade descriptors.

It is advised that assessment criteria and contextualised grade descriptors are clearly indicated on each assessment instrument to provide a focus for learners (for transparency and to ensure that feedback is specific to the criteria) and to assist with internal standardisation processes. Tasks/activities should enable learners to produce evidence that relates directly to the assessment criteria and grade descriptors.

When centres are designing assessment instruments, they need to ensure that the instruments are valid, reliable and fit for purpose, building on the application of the assessment criteria. Centres are encouraged to place emphasis on practical application of the assessment criteria, providing a realistic scenario for learners to adopt, making maximum use of work-related practical experience and reflecting typical practice in the sector concerned. **The creation of assessment instruments that are fit for purpose is vital to achievement.**

## **Grading Higher National units**

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The grading of BTEC Higher National qualifications is at the unit and the qualification level.

Each successfully completed unit will be graded as a pass, merit or distinction.

A pass is awarded for the achievement of all outcomes against the specified assessment criteria.

Merit and distinction grades are awarded for higher-level achievement. The generic merit and distinction grade descriptors listed in *Annexe C* are for grading the total evidence produced for each unit and describe the learner's performance over and above that for a pass grade.

Each of the generic merit and distinction grade descriptors should be amplified by use of **indicative characteristics** which exemplify the merit and distinction grade descriptors. These give a guide to the expected learner performance, and support the generic grade descriptors. The indicative characteristics should reflect the nature of a unit and the context of the sector programme.

The indicative characteristics shown in the table for each of the generic grade descriptors in *Annexe C* **are not exhaustive**. Consequently, centres should select appropriate characteristics from the list **or construct others** that are appropriate for their sector programme and level.

It is important to note that each assessment activity does not need to incorporate all the merit and/or distinction grade descriptors.

### **Contextualising the generic grade descriptors**

The generic merit and distinction grade descriptors need to be viewed as a qualitative extension of the assessment criteria for pass within each individual unit. The relevant generic grade descriptors must be identified and specified within an assignment and the relevant indicative characteristics should be used to place the required evidence in context.

Additional guidance on contextualisation of grade descriptors can be found in HN Delivery Guides on the website.

## Summary of grades

In order to achieve a <b>pass</b> in a unit	<ul style="list-style-type: none"><li>all learning outcomes and associated assessment criteria have been met</li></ul>
In order to achieve a <b>merit</b> in a unit	<ul style="list-style-type: none"><li>pass requirements achieved</li><li>all merit grade descriptors achieved and all prescribed indicative characteristics.</li></ul>
In order to achieve a <b>distinction</b> in a unit	<ul style="list-style-type: none"><li>pass and merit requirements achieved</li><li>all distinction grade descriptors achieved and all prescribed indicative characteristics.</li></ul>

## Calculation of the qualification grade

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### Pass qualification grade

Learners who achieve the minimum eligible credit value specified by the rule of combination will achieve the qualification at a pass grade (see section *Rules of combination for the BTEC Level 4 and 5 Higher National qualifications*). The Rules of combination have been summarised below:

#### BTEC HNC Diplomas

To achieve the qualification a learner must:

- achieve at least 120 credits at or above the level of the qualification (a maximum of 55 credits may be at Level 5)
- achieve a minimum of 65 credits at Level 4
- complete a valid combination of units.

#### BTEC HND Diplomas

To achieve the qualification a learner must:

- achieve at least 240 credits at or above the level of the qualification
- achieve a minimum of 125 credits at Level 5 or above.

The best valid combination of units is used to calculate the overall grade, e.g. if a learner has completed more than the minimum number of optional units at the appropriate level the best performance from these will be used.

All learners will receive a Notification of Performance showing all unit grades whether or not they were included in the calculation for the overall grade.

### Qualification grades above pass grade

#### BTEC HNC Diplomas

Calculation of the BTEC HNC qualification grade is based on the learner's best performance in units at or above the level of the qualification to the value of 75 credits:

- The best 75 credits must come from a maximum of 120 credits as a valid rule of combination

- The units from which the best 75 credits are selected come from the whole qualification including the mandatory core credit.

This means that credit from some mandatory core units is likely to form part of the best 75 credits in most programmes (the mandatory core credit units will automatically be included in the calculation once the maximum amount of credit for optional specialist units for the rule of combination is used up.)

It is the responsibility of a centre to ensure that a correct unit combination is adhered to.

## Qualification grades

Learners will be awarded a pass, merit or distinction qualification grade using the points gained through the 75 best credits based on unit achievement.

### Unit credit points available for specified unit grades, for either Level 4 or Level 5 units

Unit points per credit		
Pass	Merit	Distinction
0	1	2
Example for level 4 or level 5 unit of 15 credits		
Pass	Merit	Distinction
0	15	30

### BTEC Level 4 HNC overall qualification grades

Points range	Grade	
0–74	Pass	P
75–149	Merit	M
150	Distinction	D

### BTEC HND Diplomas

The grade achieved in units from an appropriate HNC may contribute to an HND grade.

If a learner moves from HNC to HND, credits at Level 5 or above from both the HNC and HND can contribute to the best 75 credits of the overall HND grade. Note that for HND learners, level 4 units do not count towards the qualification grade.

Calculation of the BTEC HND qualification grade is based on the learner's best performance in units at or above the level of the qualification – i.e. **only units at level 5** can be counted towards the value of 75 credits:

- The best 75 credits must come from a maximum of 240 credits as a valid rule of combination

- The units from which the 75 best credits are selected come from the whole qualification including the mandatory core credit, but must be level 5 units or above.

This means that credit from some mandatory core units is likely to form part of the best 75 credits in most programmes (the mandatory core credit units will automatically be included in the calculation once the maximum amount of credit for optional specialist units for the rule of combination is used up.)

It is the responsibility of a centre to ensure that a correct unit combination is adhered to.

## Qualification grades

Learners will be awarded a pass, merit or distinction qualification grade using the points gained through the 75 best credits based on unit achievement.

### Unit credit points for specified unit grades at Level 5 only

Unit points per credit		
Pass	Merit	Distinction
0	1	2

### BTEC Level 5 HND overall qualification grades

Points range	Grade	
0–74	Pass	P
75–149	Merit	M
150	Distinction	D

*Annexe E* gives examples of how qualification grades are calculated.

## Recognition of Prior Learning

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Recognition of Prior Learning (RPL) is a method of assessment (leading to the award of credit) that considers whether a learner can demonstrate that they can meet the assessment requirements for a unit through knowledge, understanding or skills they already possess and so do not need to develop through a course of learning.

Pearson encourages centres to recognise learners' previous achievements and experiences whether at work, home and at leisure, as well as in the classroom. RPL provides a route for the recognition of the achievements resulting from continuous learning.

RPL enables recognition of achievement from a range of activities using any valid assessment methodology. Provided that the assessment requirements of a given unit or qualification have been met, the use of RPL is acceptable for accrediting a unit, units or a whole qualification. Evidence of learning must be valid and reliable.

For full guidance about Pearson's policy on RPL, please see our *Recognition of Prior Learning Policy and Process* on our website.



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# Quality assurance of BTEC Higher Nationals

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Pearson's quality assurance system for all BTEC higher-level programmes at Levels 4–7 will ensure that centres have effective quality assurance processes to review programme delivery. It will also ensure that the outcomes of assessment are to national standards.

The quality assurance process for centres offering BTEC higher-level programmes at Levels 4–7 comprises three key components.

## 1) Approval process

Centres new to the delivery of this programme will be required to seek approval through the existing qualification and centre approval process. Prior to approval being given, centres will be required to submit evidence to demonstrate that they:

- have the human and physical resources required for effective delivery and assessment
- understand the implications for independent assessment and agree to abide by these
- have a robust internal assessment system supported by 'fit for purpose' assessment documentation
- have a system to internally verify assessment decisions, to ensure standardised assessment decisions are made across all assessors and sites.

Such applications have to be supported by the head of the centre (principal, chief executive etc) and include a declaration that the centre will operate the programmes strictly as approved and in line with Pearson requirements.

## 2) Monitoring of internal centre systems

Centres will be required to demonstrate ongoing fulfilment of the centre approval criteria over time and across all programmes. The process that assures this is external examination, which is undertaken by External Examiners. Centres will be given the opportunity to present evidence of the ongoing suitability and deployment of their systems to carry out the required functions. This includes the consistent application of policies affecting learner registrations, appeals, effective internal examination and standardisation processes. Where appropriate, centres may present evidence of their operation within a recognised code of practice, such as that of the Quality Assurance Agency for Higher Education. Pearson reserves the right to confirm independently that these arrangements are operating to Pearson's satisfaction.

Pearson will affirm, or not, the ongoing effectiveness of such systems. Where system failures are identified, sanctions (appropriate to the nature of the problem) will be applied in order to assist the centre in correcting the problem.

### **3) Independent assessment review**

The internal assessment outcomes reached for all BTEC higher-level programmes at Levels 4-7 are subject to an independent assessment review by a Pearson-appointed External Examiner.

The outcomes of this process will be to:

- confirm that internal assessment is to national standards and allow certification
- or

- make recommendations to improve the quality of assessment outcomes before certification is released

or

- make recommendations about the centre's ability to continue to be approved for the qualifications in question.

### **Additional arrangement for ALL centres**

Regardless of the type of centre, Pearson reserves the right to withdraw either qualification or centre approval when it deems there is an irreversible breakdown in the centre's ability either to quality assure its programme delivery or its assessment standards.

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# Programme design and delivery

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The BTEC Higher National Certificate (HNC) is a Level 4 qualification made up of 120 credits. It is usually studied full-time over one year, or part-time over two years.

The BTEC Higher National Diploma (HND) is a Level 4 and Level 5 qualification made up of 240 credits. It is usually studied full-time over two years, or part-time over four years.

Pearson would expect that an HND student would have achieved at least 90 credits at Level 4 before progressing to Level 5 units. This allows for the students to submit the remaining 30 credits at Level 4 while undertaking their Level 5 study.

Students undertaking an HND who fail to successfully complete the full qualification may be awarded an HNC, if their credit achievement permits.

BTEC Higher Nationals consist of mandatory core units and specialist units. The specialist units are designed to provide a specific focus to the qualification. Required combinations of specialist units are clearly set out in relation each qualification in the defined structures provided in this document.

All units are usually 15 credits in value, or a multiple thereof. These units have been designed from a learning time perspective, and are expressed in terms of **Total Qualification Time (TQT)**. TQT is an estimate of the total amount of time that could reasonably be expected to be required for a student to achieve and demonstrate the achievement of the level of attainment necessary for the award of a qualification. TQT includes undertaking each of the activities of Guided Learning, Directed Learning and Invigilated Assessment. Each 15-credit unit approximates to a TQT of 150 hours and 60 hours of Guided Learning. This value has been allocated according to input from curriculum writers.

**Total Qualification Time** Higher National Certificate (HNC) = 1,200 hours

**Total Qualification Time** Higher National Diploma (HND) = 2,400 hours

Examples of activities which can contribute to Total Qualification Time include:

- Guided Learning
- Independent and unsupervised research/learning
- Unsupervised compilation of a portfolio of work experience
- Unsupervised e-learning
- Unsupervised e-assessment
- Unsupervised coursework
- Watching a pre-recorded podcast or webinar
- Unsupervised work-based learning.

**Guided Learning Hours (GLH)** are defined as the time when a tutor is present to give specific guidance towards the learning aim being studied on a programme. This definition includes lectures, tutorials and supervised study in, for example, open learning centres and learning workshops. Guided Learning includes any supervised assessment activity; this includes invigilated examination and observed assessment and observed work-based practice.

**Total Guided Learning (GL)** Higher National Certificate (HNC) = 480 hours

**Total Guided Learning (GL)** Higher National Diploma (HND) = 960 hours

Some examples of activities which can contribute to Guided Learning include:

- Classroom-based learning supervised by a tutor
- Work-based learning supervised by a tutor
- Live webinar or telephone tutorial with a tutor in real time
- E-learning supervised by a tutor in real time
- All forms of assessment which take place under the immediate guidance or supervision of a tutor or other appropriate provider of education or training, including where the assessment is competence-based and may be turned into a learning opportunity.

Centres are advised to consider these definitions when planning the programme of study associated with this specification.

*Annexe D* provides information for centres and learners who wish to compare, for teaching and learning purposes, the units of the Pearson Level 5 BTEC Higher Nationals in Horticulture (2003) with the units in this specification.

## **Mode of delivery**

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Pearson does not define the mode of study for the BTEC Higher National qualifications. Centres are free to offer the qualification(s) using any mode of delivery that meets the needs of their learners. This may be through traditional classroom teaching, open learning, distance learning or a combination of these. Whatever mode of delivery is used, centres must ensure that learners have appropriate access to the resources identified in the specification and to the subject specialists delivering the units. This is particularly important for learners studying for the qualification through open or distance learning.

Our 'Distance Learning' and 'Distance Assessment' policies are given on our website.

Learners studying for the qualification on a part-time basis bring with them a wealth of experience that should be utilised to maximum effect by tutors and assessors. Assessment instruments based on learners' work environments should be encouraged. Those planning the programme should aim to enhance the vocational nature of the BTEC Higher National qualification by:

- liaising with employers to ensure that the course is relevant to learners' specific needs
- accessing and using non-confidential data and documents from learners' workplaces
- including sponsoring employers in the delivery of the programme and, where appropriate, in the assessment
- linking with company-based/workplace training programmes
- making full use of the variety of experiences of work and life that learners bring to the programme.

## Resources

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BTEC Higher National qualifications are designed to prepare learners for employment in specific industry sectors.

Physical resources need to support the delivery of the programme and the proper assessment of the outcomes and, therefore, should normally be of industry standard.

Staff delivering programmes and conducting the assessments should be familiar with current practice, legislation and standards used in the sector concerned.

Centres will need to meet any specialist resource requirements when they seek approval from Pearson.

Please refer to the *Essential requirements* section in individual units for specialist resource requirements.

## Delivery approach

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It is important that centres develop an approach to teaching and learning that supports the specialist vocational nature of the BTEC Higher National qualification. Specifications contain a balance of practical skill development and knowledge requirements, some of which can be theoretical in nature. Tutors and assessors need to ensure that appropriate links are made between theory and practice and that the knowledge base is applied to the sector. This will require the development of relevant and up-to-date teaching materials that allow learners to apply their learning to actual events and activities within the sector. Maximum use should be made of the learner's experience.

## Meeting local needs

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Centres should note that the qualifications set out in these specifications have been developed in consultation with centres, employers and relevant professional organisations.

The units are designed to meet the skill needs of the sector and the specialist units allow coverage of the full range of employment within the sector. Centres should make maximum use of the choice available to them within the specialist units to meet the needs of their learners, as well as the local skills and training needs.

Where centres identify a specific need that cannot be addressed using the units in this specification, centres can seek approval from Pearson to use units from other BTEC Higher National qualifications accredited in 2010. Centres will need to justify the need for importing units from other specifications and Pearson will ensure that the vocational focus of the qualification remains the same.

Applications must be made **in advance** of delivery by 31 January in the year of registration (see the website for details).

The flexibility to import standard units from other BTEC Higher National specifications accredited in 2010 is **limited to a maximum of 30 credits in a BTEC HNC qualification and a maximum of 60 credits only in any BTEC HND qualification**. This is an overall maximum and centres should check the 'Rules of Combination' information for the specific qualification to confirm the actual requirements. These units cannot be used at the expense of the mandatory core units in any qualification nor can the qualification rules of combination level rules be compromised. The centre must ensure that approved units are used only in eligible combinations.

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# Access and recruitment

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Pearson's policy regarding access to our qualifications is that:

- qualifications should be available to everyone who is capable of reaching the required standards
- qualifications should be free from any barriers that restrict access and progression
- there must be equal opportunities for everyone wishing to access the qualification.

Centres are required to recruit learners to BTEC Higher National qualifications with integrity. This will include ensuring that applicants have appropriate information and advice about the qualifications and that the qualification will meet their needs. Centres should take appropriate steps to assess each applicant's potential and make a professional judgement about their ability to successfully complete the programme of study and achieve the qualification. This assessment will need to take account of the support available to the learner within the centre during their programme of study and any specific support that might be necessary to allow the learner to access the assessment for the qualification.

Centres will need to review the profile of qualifications and/or experience held by applicants, considering whether this profile shows an ability to progress to level 4 or level 5 qualifications. For learners who have recently been in education, the entry profile is likely to include one of the following:

- a BTEC level 3 qualification in horticulture
- a GCE level profile that demonstrates strong performance in a relevant subject or an adequate performance in more than one GCE subject. This profile is likely to be supported by GCSE grades at A\* to C
- other related level 3 qualifications
- an Access to Higher Education Certificate received from an approved further education institution
- related work experience.

Mature learners may present a more varied profile of achievement that is likely to include extensive work experience (paid and/or unpaid) and/or achievement of a range of professional qualifications in their work sector.

## Restrictions on learner entry

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BTEC Higher National qualifications are accredited on the RQF for learners aged 18 years and over.

## **Equality Act 2010 and Pearson equality policy**

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Equality and fairness are central to our work. Our equality policy requires all learners to have equal opportunity to access our qualifications and assessments, and our qualifications are required to be awarded in a way that is fair to every learner.

We are committed to making sure that:

- learners with a protected characteristic (as defined by the Equality Act 2010) are not, when they are undertaking one of qualifications, disadvantaged in comparison with learners who do not share that characteristic
- all learners achieve the recognition they deserve for undertaking a qualification and that this achievement can be compared fairly to the achievement of their peers.

You can find details on how to make adjustments for learners with protected characteristics in the policy document *Access Arrangements, Reasonable Adjustments and Special Considerations*, available on our website.

An adjustment may not be considered reasonable if it involves unreasonable costs and/or timeframes or affects the security or integrity of the assessment.

There is no duty on awarding organisations to make any adjustment to the Assessment Objectives being tested in an assessment.

## **English language expectations**

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Centres delivering BTEC level 4 to 7 programmes are expected to ensure that all learners who are non-native English speakers or who have not studied the final two years of school in English, can demonstrate capability in English at a standard commensurate with:

- IELTS 5.5, with a minimum of 5.0 being awarded on individual sections for a level 4 or 5 qualification
- IELTS 6.5 for a level 6 or 7 qualification

Pearson's Standard Verifiers (EE) will expect centres to demonstrate that their learners meet these expectations.



## **How to obtain National Occupational Standards**

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The National Occupational Standards for Amenity Horticulture Management and Production Horticulture Management can be obtained from:

Lantra Sector Skills Council  
Lantra House  
Stoneleigh Park  
Near Coventry  
Warwickshire  
CV8 2LG

Telephone: 024 7669 6996  
Website: [www.lantra.co.uk](http://www.lantra.co.uk)

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# Professional development and training

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Pearson supports UK and international customers with training related to BTEC qualifications. This support is available through a choice of training options offered on our website at: [qualifications.pearson.com/en/support/training-from-pearson-uk](http://qualifications.pearson.com/en/support/training-from-pearson-uk)

The support we offer focuses on a range of issues, such as:

- planning for the delivery of a new programme
- planning for assessment and grading
- developing effective assignments
- building your team and teamwork skills
- developing learner-centred learning and teaching approaches
- building in effective and efficient quality assurance systems.

The national programme of training we offer is on our website. You can request centre-based training through the website or you can contact one of our advisers in the Training from Pearson UK team via Customer Services to discuss your training needs.

## **BTEC training and support for the lifetime of the qualifications**

**Training and networks:** our training programme ranges from free introductory events through sector-specific opportunities to detailed training on all aspects of delivery, assignments and assessment. We also host some regional network events to allow you to share your experiences, ideas and best practice with other BTEC colleagues in your region.

**Regional support:** our team of Curriculum Development Managers and Curriculum Support Consultants, based around the country, are responsible for providing advice and support in centres. They can help you with planning and curriculum developments.

To get in touch with our dedicated support teams please visit our website [qualifications.pearson.com/en/support/contact-us](http://qualifications.pearson.com/en/support/contact-us)



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# Annexe A

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## Qualification Requirements

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### Rationale

The Pearson BTEC Higher Nationals in Horticulture have been designed to focus on:

- the education and training for a range of careers in horticulture and allied land-based industries
- opportunities for those employed within these industries to achieve a nationally recognised level 5 vocationally specific qualification
- opportunities for full-time learners to gain a nationally recognised vocationally specific level 5 qualification to enter employment within these industries at supervisory or management level or to progress to higher education vocational qualifications such as a full-time degree in horticulture or related subject area
- expansion of the knowledge, understanding and skills of learners from a horticultural or allied industry supervisor's or manager's viewpoint
- opportunities for learners to concentrate on the development of higher-level skills in a land-based context; and how their role and that of their business fits within the overall structure of the land-based industries, the national and international economy and the global overview
- opportunities for learners to develop a range of skills, techniques and attributes essential for successful performance in working life.

### Aims of the qualification

This qualification meets the needs of the above rationale by:

- equipping individuals with knowledge, understanding and skills for successful employment in the horticultural and allied industries
- enabling progression to an undergraduate degree or further professional qualifications in related areas
- providing opportunities for specialist study relevant to individual vocations and contexts
- developing the individual's ability in the horticultural and allied industries through effective use and combination of the knowledge and skills gained in different parts of the programme
- developing a range of skills and techniques, personal qualities and attributes essential for successful performance in working life and thereby enabling learners to make an immediate contribution to employment
- providing flexibility, knowledge, skills and motivation as a basis for future studies and career development in the horticultural and allied industries.

## **Mandatory curriculum**

The mandatory curriculum will give learners the opportunity to build on previous attainment while allowing them to progress and study a selection of optional curriculum. It will display the following features:

- understand and apply business management, e.g. record-keeping and planning techniques; human resource management, roles and responsibilities; financial management and analysis of performance; resource management; health and safety management; legislative requirements and responsibilities; external factors; marketing; use of sector-specific software packages for the management, collection, analysis and use of information; ICT skills used to obtain information from electronic sources and synthesise information
- develop and apply an understanding of the principles of plant and soil science; structure and function of plants and soils; plant physiology; relationships between plants and soils; soil management techniques and equipment
- extend and apply knowledge gained in other units by developing the learner's knowledge of the physiology of plants; plant adaptations; inter-relationships of plants and their environment; diagnosis of plant diseases; the range of biotic and abiotic causes of ill health in plants and their treatment; health and safety; relevant legislation
- develop a deeper understanding of the physiology of plants and their adaptations; the causes of adaptations; environmental influences; inter-relationships of plants and their environment
- understand basic evolution; classification methods; cell biology; structure and physiology of plants, homeostasis
- develop and apply knowledge of sustainability; organisational impact on the environment; waste management techniques, legislation and benefits; environmental management techniques, organisations, policies and legislation
- use of basic statistical techniques to support a range of experimental and production situations: reinforcement of numeracy requirements to ensure accuracy and precision in production and survey management.

## **Optional curriculum**

- undertake real work experience within a business or organisation; practical health and safety; resource management; assist in aspects of supervisory and management practices overseeing various aspects of the working environment, e.g. financial management, production systems, customer care, environmental management.
- use of project management; implement a project plan including evaluation and review; importance of communications and presentation in project management; importance of identifying various sources and types of information.

- develop and apply knowledge of the principles of sustainability; the development of international conventions regarding sustainability; governmental and industrial responses to international conventions; individual responses to the principles of sustainable development.
- develop and apply an understanding of the range and use of technology in the horticultural industries; the design and operational requirements of horticultural technology; the influences of environmental protection and sustainability on horticultural technology design and use; costs; staff training; health and safety; relevant legislation.
- develop an understanding of the development of garden design in the UK; garden design principles and solutions; hard and soft landscaping; surveying and assessment methods; plants, water, natural and artificial materials; aids to design; horticultural shows; design equipment and technology; costs; health and safety; relevant legislation.
- develop an understanding of the historical influences in garden design; continental influences on UK designs; development of UK gardens; social history; styles of UK garden designers; development in garden design technology.
- develop and apply a deeper understanding of the principles of hard and soft landscaping in garden design; the range and use of natural and artificial materials; plants; water and light; maintenance regimes; equipment and technology; sources of plants and materials; costs; health and safety; relevant legislation.
- develop and apply an understanding of the principles used in interior design and for plant displays; main users of interior design and plant displays; the range and use of natural and artificial materials; plants; water and light; maintenance regimes; weed, pest and disease control; equipment and technology; plant rehabilitation techniques; sources of materials and plants; costs; health and safety; relevant legislation.
- understand the range of types and history of public horticulture; the financing and issues facing public horticulture; staffing requirements; public access issues; health and safety; relevant legislation.
- optional units will be available for fruit and vegetable production, nursery stock production and mechanisation used in production crops; develop and apply knowledge of the plants grown under these conditions; sources of stock; nutritional, environmental and storage requirements; facilities and technology; husbandry and management techniques; equipment; stock health management; staff training; marketing; costs; health and safety; relevant legislation.
- develop an understanding of the history of golf course design and development; sources of finance; management of golf courses; the range of types of golf clubs and membership categories; planning legislation, requirements and issues; staffing requirements; associated facilities; equipment and technology; develop and apply golf course design principles; techniques used to build golf courses; types of golf course; health and safety; relevant legislation.

- develop and apply knowledge of botanical, physical and physiological characteristics of grasses used for sports turf; methods of soil preparation; fertiliser requirements and application methods; costs; pollution control; weed, pests and disease diagnosis, control and treatment; mechanisation uses, costs and maintenance; methods of assessing turf quality; turf performance standards and their application; methods of improving, repairing and maintaining turf; irrigation requirements, regimes, equipment and systems; water supply management; health and safety; relevant legislation.
- develop and apply knowledge of the range of non-grass materials used for playing surfaces; sources; construction and design requirements; costs; pollution control; drainage; surface repair and maintenance requirements; equipment and technology; health and safety; relevant legislation.
- extend and apply knowledge gained in the core curriculum by developing the learners' knowledge of business planning and development; sources of finance; analysis of business performance; human resource management; enterprise and financial control; record keeping; external factors and issues facing the industry; relevant legislation.

## **Links to National Standards**

There is the opportunity for the Pearson BTEC HNC and HND Diplomas in Horticulture to provide much of the underpinning knowledge, understanding and skills necessary to meet the requirements of National Occupational Standards in Amenity and Production Horticulture Management.

## **Entry prerequisites**

There are no particular entry requirements for these qualifications. Learners who enter with at least one of the following are likely to benefit more readily from these Higher National programmes:

- a BTEC National in Horticulture or related subject
- a level 3 qualification in a related subject; at least one GCE A level pass in a relevant subject with supporting passes at GCSE would be advantageous for entry as would appropriate, relevant work experience.

## Higher level skills and abilities

Learners will be expected to be able to do the following during the programme of study:

- analyse, synthesise and summarise information critically
- read and use appropriate literature with a full and critical understanding
- think independently, solve problems and devise innovative solutions
- take responsibility for their own learning and recognise their own learning style
- apply subject knowledge and understanding to address familiar and unfamiliar problems
- design, plan, conduct and report on investigations
- use their knowledge, understanding and skills to evaluate and formulate evidence-based arguments critically and identify solutions to clearly defined problems of a general routine nature
- communicate the results of their study and other work accurately and reliably using a range of specialist techniques
- identify and address their own major learning needs within defined contexts and undertake guided further learning in new areas





# Annexe B

## National Occupational Standards (NOS)

### Mapping against the level 4 Work-based Diplomas in Amenity and Production Horticulture Management

The grid below maps the knowledge covered in the level 4 Work-based Diplomas in Amenity and Production Horticulture Management against the underpinning knowledge of the Pearson BTEC Higher Nationals in Horticulture.

HNC/D titles  Work-based Diploma unit titles	Unit 1: Principles of Plant and Soil Science	Unit 2: Work-based Experience	Unit 3: Project Management for Land-based Industries	Unit 4: Enterprise and Financial Management for Land-based Industries	Unit 5: Human Resource Management	Unit 6: Research Project	Unit 7: Plant Environmental Adaptation and Physiology	Unit 8: Plant Selection and Establishment	Unit 9: Environmental Management	Unit 10: Biological Principles	Unit 11: Horticultural Technology	Unit 12: Garden Design Principles	Unit 13: Fruit and Vegetable Production Management	Unit 14: Nursery Stock Production	Unit 15: Hard Landscape Principles and Practice	Unit 16: Public Horticulture	Unit 17: Landscape and Garden Maintenance	Unit 18: Interior Landscape and Plant Displays	Unit 19: Plant Health and Environmental Relationships	Unit 20: Understanding Organic Soil Management
<b>Production Horticulture National Occupational Standards</b>																				
Unit CU107 Interview and recruit staff					3															
Unit CU105 Monitor and assess the performance of colleague													3							

HNC/D titles  Work-based Diploma unit titles	Unit 1: Principles of Plant and Soil Science	Unit 2: Work-based Experience	Unit 3: Project Management for Land-based Industries	Unit 4: Enterprise and Financial Management for Land-based Industries	Unit 5: Human Resource Management	Unit 6: Research Project	Unit 7: Plant Environmental Adaptation and Physiology	Unit 8: Plant Selection and Establishment	Unit 9: Environmental Management	Unit 10: Biological Principles	Unit 11: Horticultural Technology	Unit 12: Garden Design Principles	Unit 13: Fruit and Vegetable Production Management	Unit 14: Nursery Stock Production	Unit 15: Hard Landscape Principles and Practice	Unit 16: Public Horticulture	Unit 17: Landscape and Garden Maintenance	Unit 18: Interior Landscape and Plant Displays	Unit 19: Plant Health and Environmental Relationships	Unit 20: Understanding Organic Soil Management
<b>Amenity Horticulture National Occupational Standards</b>																				
Unit D3 Recruit, select and keep colleagues (MSC)					3															
Unit L26 Estimate resource requirements and programme work											3	3			3		3	3		
Unit L27 Plan, monitor and evaluate the establishment and management of planted areas															3		3	3		
Unit CU85 Design landscape areas and specify materials and component												3			3		3			

HNC/D titles  Work-based Diploma unit titles	Unit 1: Principles of Plant and Soil Science	Unit 2: Work-based Experience	Unit 3: Project Management for Land-based Industries	Unit 4: Enterprise and Financial Management for Land-based Industries	Unit 5: Human Resource Management	Unit 6: Research Project	Unit 7: Plant Environmental Adaptation and Physiology	Unit 8: Plant Selection and Establishment	Unit 9: Environmental Management	Unit 10: Biological Principles	Unit 11: Horticultural Technology	Unit 12: Garden Design Principles	Unit 13: Fruit and Vegetable Production Management	Unit 14: Nursery Stock Production	Unit 15: Hard Landscape Principles and Practice	Unit 16: Public Horticulture	Unit 17: Landscape and Garden Maintenance	Unit 18: Interior Landscape and Plant Displays	Unit 19: Plant Health and Environmental Relationships	Unit 20: Understanding Organic Soil Management
Unit CU93 Plan, monitor and evaluate the management of land-based site															3		3			
Unit CU109 Maintain and improve customer relationship											3				3		3			
Unit CU124 Organise a straight-forward land-based project or even											3				3		3			
Unit D4 Provide information to support decision making											3									
Unit F4 Implement quality assurance system													3							

<b>HNC/D titles</b>	<b>Unit 21: Organic Principles and Practice</b>	<b>Unit 22: Golf Course Design Principles</b>	<b>Unit 23: Management of Historic Parks and Gardens</b>	<b>Unit 24: Growing Media</b>	<b>Unit 25: Manage the Identification and Classification of Plants</b>	<b>Unit 26: Plan and Manage the Movement of Plants</b>	<b>Unit 27: Plan and Manage the Growth and Development of Crops</b>	<b>Unit 28: Plan and Manage the Harvesting, Preparation and Storage of Crops</b>	<b>Unit 29: Plan and Manage Protected Crops</b>	<b>Unit 30: Business Environment</b>	<b>Unit 31: Small Business Enterprise</b>	<b>Unit 32: Sustainable Development</b>	<b>Unit 33: Research Methods for Land-based Industries</b>	<b>Unit 34: Land-based Business Planning</b>	<b>Unit 35: Event Management for Land-based Industries</b>	<b>Unit 36: Mechanisation for Land-based Industries</b>	<b>Unit 37: Land Use Issues and Regulation</b>	<b>Unit 38: Build and Maintain Effective Customer Relations</b>	<b>Unit 39: Health and Safety in the Land-based Workplace</b>	<b>Unit 40: Waste Management</b>
<b>Amenity Horticulture National Occupational Standards</b>																				
Unit F6 Manage the use of physical resource (VSNT0)			3			3	3	3	3											
Unit L26 Estimate resource requirements and programme work			3																	
Unit L27 Plan, monitor and evaluate the establishment and management of planted areas			3			3	3	3	3											
Unit CU85 Design landscape areas and specify materials and component			3																	

<b>HNC/D titles</b>	<b>Work-based Diploma unit titles</b>	<b>Unit 21: Organic Principles and Practice</b>	<b>Unit 22: Golf Course Design Principles</b>	<b>Unit 23: Management of Historic Parks and Gardens</b>	<b>Unit 24: Growing Media</b>	<b>Unit 25: Manage the Identification and Classification of Plants</b>	<b>Unit 26: Plan and Manage the Movement of Plants</b>	<b>Unit 27: Plan and Manage the Growth and Development of Crops</b>	<b>Unit 28: Plan and Manage the Harvesting, Preparation and Storage of Crops</b>	<b>Unit 29: Plan and Manage Protected Crops</b>	<b>Unit 30: Business Environment</b>	<b>Unit 31: Small Business Enterprise</b>	<b>Unit 32: Sustainable Development</b>	<b>Unit 33: Research Methods for Land-based Industries</b>	<b>Unit 34: Land-based Business Planning</b>	<b>Unit 35: Event Management for Land-based Industries</b>	<b>Unit 36: Mechanisation for Land-based Industries</b>	<b>Unit 37: Land Use Issues and Regulation</b>	<b>Unit 38: Build and Maintain Effective Customer Relations</b>	<b>Unit 39: Health and Safety in the Land-based Workplace</b>	<b>Unit 40: Waste Management</b>
Unit CU92 Determine policies for the development of land-based site	3																				
Unit CU93 Plan, monitor and evaluate the management of land-based site			3	3		3	3	3	3												
Unit CU106 Develop procedures for health and safety in the workplace																			3		
Unit CU108 Develop plans to improve your marketing and sales															3						
Unit CU109 Maintain and improve customer relationships			3																3		

<b>HNC/D titles</b>	<b>Unit 21: Organic Principles and Practice</b>	<b>Unit 22: Golf Course Design Principles</b>	<b>Unit 23: Management of Historic Parks and Gardens</b>	<b>Unit 24: Growing Media</b>	<b>Unit 25: Manage the Identification and Classification of Plants</b>	<b>Unit 26: Plan and Manage the Movement of Plants</b>	<b>Unit 27: Plan and Manage the Growth and Development of Crops</b>	<b>Unit 28: Plan and Manage the Harvesting, Preparation and Storage of Crops</b>	<b>Unit 29: Plan and Manage Protected Crops</b>	<b>Unit 30: Business Environment</b>	<b>Unit 31: Small Business Enterprise</b>	<b>Unit 32: Sustainable Development</b>	<b>Unit 33: Research Methods for Land-based Industries</b>	<b>Unit 34: Land-based Business Planning</b>	<b>Unit 35: Event Management for Land-based Industries</b>	<b>Unit 36: Mechanisation for Land-based Industries</b>	<b>Unit 37: Land Use Issues and Regulation</b>	<b>Unit 38: Build and Maintain Effective Customer Relations</b>	<b>Unit 39: Health and Safety in the Land-based Workplace</b>	<b>Unit 40: Waste Management</b>
Unit CU119 Help teams to achieve their objective																				3
Unit CU124 Organise a straight-forward land-based project or event			3	3		3	3	3	3											
Unit CU130 Produce and implement a business plan for the land-based business																				3
Unit A2 Manage your own resources and professional (MSC)																				3

HNC/D titles  Work-based Diploma unit titles	Unit 41: Develop and Implement Plans for the Storage and Disposal of Inorganic Waste	Unit 42: Professional Garden Design Practice	Unit 43: Major Integrated Garden Design Project	Unit 44: Historical Influence in Garden Design	Unit 45: Graphic Skills for Garden Designers	Unit 46: Garden Styles and their Influence	Unit 47: Advanced Garden Design	Unit 48: Landscape Design Process	Unit 49: Planting Design	Unit 50: Contract Documentation and Management for Land-based Industries	Unit 51: Principles of Ecology	Unit 52: Quality and Performance Standards for Turf	Unit 53: Construction and Maintenance of Sports Turf Surfaces	Unit 54: Mechanisation Management – Turf	Unit 55: Grassland Management	Unit 56: Non-Grass Playing Surfaces	Unit 57: Golf Course Planning	Unit 58: Turf Irrigation Systems	Unit 59: Arboriculture Management
<b>Amenity Horticulture National Occupational Standards</b>																			
Unit CU119 Help teams to achieve their objective	3																		
Unit CU124 Organise a straight-forward land-based project or event	3																		
Unit CU130 Produce and implement a business plan for the land-based business	3							3											
Unit A2 Manage your own resources and professional (MSC)	3																		
Unit L26 Estimate resource requirements and programme work		3	3														3		



HNC/D titles  Work-based Diploma unit titles	Unit 41: Develop and Implement Plans for the Storage and Disposal of Inorganic Waste	Unit 42: Professional Garden Design Practice	Unit 43: Major Integrated Garden Design Project	Unit 44: Historical Influence in Garden Design	Unit 45: Graphic Skills for Garden Designers	Unit 46: Garden Styles and their Influence	Unit 47: Advanced Garden Design	Unit 48: Landscape Design Process	Unit 49: Planting Design	Unit 50: Contract Documentation and Management for Land-based Industries	Unit 51: Principles of Ecology	Unit 52: Quality and Performance Standards for Turf	Unit 53: Construction and Maintenance of Sports Turf Surfaces	Unit 54: Mechanisation Management – Turf	Unit 55: Grassland Management	Unit 56: Non-Grass Playing Surfaces	Unit 57: Golf Course Planning	Unit 58: Turf Irrigation Systems	Unit 59: Arboriculture Management
Unit L27 Plan, monitor and evaluate the establishment and management of planted areas			3					3				3							
Unit CU85 Design landscape areas and specify materials and component		3	3					3				3							
Unit CU93 Plan, monitor and evaluate the management of land-based site		3	3					3				3							
Unit CU109 Maintain and improve customer relationship		3	3																
Unit CU123 Manage information, knowledge and communications (MSC)																			

HNC/D titles  Work-based Diploma unit titles	Unit 41: Develop and Implement Plans for the Storage and Disposal of Inorganic Waste	Unit 42: Professional Garden Design Practice	Unit 43: Major Integrated Garden Design Project	Unit 44: Historical Influence in Garden Design	Unit 45: Graphic Skills for Garden Designers	Unit 46: Garden Styles and their Influence	Unit 47: Advanced Garden Design	Unit 48: Landscape Design Process	Unit 49: Planting Design	Unit 50: Contract Documentation and Management for Land-based Industries	Unit 51: Principles of Ecology	Unit 52: Quality and Performance Standards for Turf	Unit 53: Construction and Maintenance of Sports Turf Surfaces	Unit 54: Mechanisation Management – Turf	Unit 55: Grassland Management	Unit 56: Non-Grass Playing Surfaces	Unit 57: Golf Course Planning	Unit 58: Turf Irrigation Systems	Unit 59: Arboriculture Management
Unit D4 Provide information to support decision making (MSC 1997)													3						
Unit F6 Manage the use of physical resource (VSNT0)													3					3	



# Annexe C

## Grade descriptors

### Pass grade

A **pass grade** is achieved by meeting all the requirements defined in the assessment criteria for pass for each unit.

### Merit grade

<b>Merit grade descriptors</b>	<b>Exemplar indicative characteristics</b> <b>Centres can identify and use other relevant characteristics. This is NOT a tick list.</b>
In order to achieve a <b>merit</b> the learner must:	The learner's evidence shows, for example:
<ul style="list-style-type: none"> <li>• identify and apply strategies to find appropriate solutions</li> </ul>	<ul style="list-style-type: none"> <li>• effective judgements have been made</li> <li>• complex problems with more than one variable have been explored</li> <li>• an effective approach to study and research has been applied</li> </ul>
<ul style="list-style-type: none"> <li>• select/design and apply appropriate methods/techniques</li> </ul>	<ul style="list-style-type: none"> <li>• relevant theories and techniques have been applied</li> <li>• a range of methods and techniques have been applied</li> <li>• a range of sources of information has been used</li> <li>• the selection of methods and techniques/sources has been justified</li> <li>• the design of methods/techniques has been justified</li> <li>• complex information/data has been synthesised and processed</li> <li>• appropriate learning methods/techniques have been applied</li> </ul>
<ul style="list-style-type: none"> <li>• present and communicate appropriate findings</li> </ul>	<ul style="list-style-type: none"> <li>• the appropriate structure and approach has been used</li> <li>• coherent, logical development of principles/concepts for the intended audience</li> <li>• a range of methods of presentation have been used and technical language has been accurately used</li> <li>• communication has taken place in familiar and unfamiliar contexts</li> <li>• the communication is appropriate for familiar and unfamiliar audiences and appropriate media have been used.</li> </ul>

## Distinction grade

<b>Distinction grade descriptors</b>	<b>Exemplar indicative characteristics</b>  <b>Centres can identify and use other relevant characteristics. This is NOT a tick list.</b>
In order to achieve a <b>distinction</b> the learner must:	The learner's evidence shows, for example:
<ul style="list-style-type: none"> <li>• use critical reflection to evaluate own work and justify valid conclusions</li> </ul>	<ul style="list-style-type: none"> <li>• conclusions have been arrived at through synthesis of ideas and have been justified</li> <li>• the validity of results has been evaluated using defined criteria</li> <li>• self-criticism of approach has taken place</li> <li>• realistic improvements have been proposed against defined characteristics for success</li> </ul>
<ul style="list-style-type: none"> <li>• take responsibility for managing and organising activities</li> </ul>	<ul style="list-style-type: none"> <li>• autonomy/independence has been demonstrated</li> <li>• substantial activities, projects or investigations have been planned, managed and organised</li> <li>• activities have been managed</li> <li>• the unforeseen has been accommodated</li> <li>• the importance of interdependence has been recognised and achieved</li> </ul>
<ul style="list-style-type: none"> <li>• demonstrate convergent/lateral/creative thinking</li> </ul>	<ul style="list-style-type: none"> <li>• ideas have been generated and decisions taken</li> <li>• self-evaluation has taken place</li> <li>• convergent and lateral thinking have been applied</li> <li>• problems have been solved</li> <li>• innovation and creative thought have been applied</li> <li>• receptiveness to new ideas is evident</li> <li>• effective thinking has taken place in unfamiliar contexts.</li> </ul>

# Annexe D

## Unit mapping overview

The BTEC Higher National units in Horticulture (specification start date 01/09/2011) are mapped against the 2003 BTEC Higher National units in Horticulture (specification end date 31/08/2010) in the following tables:

Unit number	2011 unit title	Maps to 2003 unit number	Level of similarity between units
1	Principles of Plant and Soil Science	5	F
2	Work-based Experience	9	F
3	Project Management for Land-based Industries	12	F
4	Enterprise and Financial Management for Land-based Industries	13	F
5	Human Resource Management	16	F
6	Research Project	2	F
7	Plant Environmental Adaptation and Physiology	6	F
8	Plant Selection and Establishment	43	F
9	Environmental Management	7	F
10	Biological Principles	3	F
11	Horticultural Technology	10	F
12	Garden Design Principles	11	F
13	Fruit and Vegetable Production Management	17	F
14	Nursery Stock Production	18	F
15	Hard Landscape Principles and Practice	21	F
16	Public Horticulture	22	F
17	Landscape and Garden Maintenance	23	F
18	Interior Landscape and Plant Displays	24	F
19	Plant Health and Environmental Relationships	25	F
20	Understanding Organic Soil Management	27	F
21	Organic Principles and Practice	28	F

<b>Unit number</b>	<b>2011 unit title</b>	<b>Maps to 2003 unit number</b>	<b>Level of similarity between units</b>
<b>22</b>	Golf Course Design Principles	29	F
<b>23</b>	Management of Historic Parks and Gardens	—	N
<b>24</b>	Growing Media	—	N
<b>25</b>	Manage the Identification and Classification of Plants	—	N
<b>26</b>	Plan and Manage the Movement of Plants	—	N
<b>27</b>	Plan and Manage the Growth and Development of Crops	—	N
<b>28</b>	Plan and Manage the Harvesting, Preparation and Storage of Crops	—	N
<b>29</b>	Plan and Manage Protected Crops	—	N
<b>30</b>	Business Environment	1	P
<b>31</b>	Small Business Enterprise	4	F
<b>32</b>	Sustainable Development	8	F
<b>33</b>	Research Methods for Land-based Industries	14	F
<b>34</b>	Land-based Business Planning	15	F
<b>35</b>	Event Management for Land-based Industries	26	F
<b>36</b>	Mechanisation for Land-based Industries	30	F
<b>37</b>	Land Use Issues and Regulation	44	F
<b>38</b>	Build and Maintain Effective Customer Relations	—	N
<b>39</b>	Health and Safety in the Land-based Workplace	—	N
<b>40</b>	Waste Management	—	N
<b>41</b>	Develop and Implement Plans for the Storage and Disposal of Inorganic Waste	—	N
<b>42</b>	Professional Garden Design Practice	—	N
<b>43</b>	Major Integrated Garden Design Project	—	N
<b>44</b>	Historical Influence in Garden Design	36	F
<b>45</b>	Graphic Skills for Garden Designers	—	N

Unit number	2011 unit title	Maps to 2003 unit number	Level of similarity between units
46	Garden Styles and their Influence	—	N
47	Advanced Garden Design	—	N
48	Landscape Design Process	31	F
49	Planting Design	32	F
50	Contract Documentation and Management for Land-based Industries	35	F
51	Principles of Ecology	42	F
52	Quality and Performance Standards for Turf	34	F
53	Construction and Maintenance of Sports Turf Surfaces	33	F
54	Mechanisation Management – Turf	37	F
55	Grassland Management	38	F
56	Non-Grass Playing Surfaces	39	F
57	Golf Course Planning	40	F
58	Turf Irrigation Systems	41	F
59	Arboricultural Management	—	N

#### KEY

P – Partial mapping (some topics from the old unit appear in the new unit)

F – Full mapping (topics in old unit match new unit exactly or almost exactly)

X – Full mapping + new (all the topics from the old unit appear in the new unit, but new unit also contains new topic(s))

N – New unit



## Unit mapping in depth

The BTEC Higher National units in Horticulture (specification start date 01/09/2011) are mapped against the 2003 BTEC Higher National units in Horticulture (specification end date 31/08/2010).

2011 units		2003 units		Mapping/comments (new topics in italics)
Number	Name	Number	Name	
1	Principles of Plant and Soil Science	5	Principles of Plant and Soil Science	N/A
2	Work-based Experience	9	Land-based Industry Experience	New minimum 450 hour work experience stated
3	Project Management for Land-based Industries	12	Project Management for Land-based Industries	N/A
4	Enterprise and Financial Management for Land-based Industries	13	Enterprise and Financial Management for Land-based Industries	N/A
5	Human Resource Management	16	Human Resource Management	Learning Outcome 1 no longer views Human Resource Management as a new concept compared to Personal Management. The nature and development of human resource management has been removed from Learning Outcome 1. <i>Legal and regulatory framework</i> is now included in Learning Outcome 1.
6	Research Project	2	Investigative Project	<i>Understand how to formulate a research specification. Be able to implement the research project within agreed procedures and to specification.</i>
7	Plant Environmental Adaptation and Physiology	6	Plant Environmental Adaptation and Physiology	N/A
8	Plant Selection and Establishment	43	Plants in the Landscape	N/A

2011 units		2003 units		Mapping/comments (new topics in italics)
Number	Name	Number	Name	
9	Environmental Management	7	Environmental Management	Fifth Learning Outcome added to Unit; <i>Be able to devise environmental policy in a land-based sector.</i>
10	Biological Principles	3	Biological Principles	<p>"Demonstrate the knowledge of <b>fundamental biological principles</b> and the ability to apply them through basic laboratory investigations" has been split into two Learning Outcomes.</p> <p>New Learning Outcomes:</p> <p><i>Be able to investigate fundamental biological principles in plants and/or animals.</i></p> <p><i>Understand basic biochemical principles in plant and/or animals.</i></p>
11	Horticultural Technology	10	Horticultural Technology	N/A
12	Garden Design Principles	11	Garden Design Principles	N/A
13	Fruit and Vegetable Production Management	17	Fruit and Vegetable Production	N/A
14	Nursery Stock Production	18	Nursery Stock Production	N/A
15	Hard Landscape Principles and Practice	21	Hard Landscape Principles and Practice	Intellectual and practical skills removed from unit and replaced with <i>Be able to plan hard landscape construction</i>
16	Public Horticulture	22	Public Horticulture	N/A
17	Landscape and Garden Maintenance	23	Landscape and Garden Maintenance	N/A
18	Interior Landscape and Plant Displays	24	Interior Landscape and Plant Displays	N/A

2011 units		2003 units		Mapping/comments (new topics in italics)
Number	Name	Number	Name	
19	Plant Health and Environmental Relationships	25	Plant Health and Environmental Relationships	N/A
20	Understanding Organic Soil Management	27	Management of Organic Matter	N/A
21	Organic Principles and Practice	28	Organic Principles and Practice	Investigate non-mainstream philosophies and systems and Explain organic standards and certification removed from unit.  Be able to plan an organic cropping system and <i>Understand how to maintain the healthy growth of organic crops</i> added to Unit.
22	Golf Course Design Principles	29	Golf Course Design Principles	N/A
23	Management of Historic Parks and Gardens	—		N/A
24	Growing Media	—		N/A
25	Manage the Identification and Classification of Plants	—		N/A
26	Plan and Manage the Movement of Plants	—		N/A
27	Plan and Manage the Growth and Development of Crops	—		N/A
28	Plan and Manage the Harvesting, Preparation and Storage of Crops	—		N/A
29	Plan and Manage Protected Crops	—		N/A

2011 units		2003 units		Mapping/comments (new topics in italics)
Number	Name	Number	Name	
30	Business Environment	1	Principles of Land-based Business	Unit focus moved away from financial records and accounts with the focus moved onto business organisations and how they operate. <i>Understand the organisational purposes of businesses.</i> <i>Understand the nature of the national environment in which businesses operate.</i> <i>Understand the behaviour of organisations in their market environment.</i> <i>Be able to assess the significance of global factors that shape national business activities.</i>
31	Small Business Enterprise	4	Small Business Enterprise	N/A
32	Sustainable Development	8	Sustainable Development	N/A
33	Research Methods for Land-based Industries	14	Research Methods for Land-based Industries	N/A
34	Land-based Business Planning	15	Land-based Business Planning	N/A
35	Event Management for Land-based Industries	26	Event Management for Land-based Industries	N/A
36	Mechanisation for Land-based Industries	30	Mechanisation for Land-based Industries	N/A
37	Land Use Issues and Regulation	44	Land Use Issues and Regulation	N/A
38	Build and Maintain Effective Customer Relations	—		N/A

2011 units		2003 units		Mapping/comments (new topics in italics)
Number	Name	Number	Name	
39	Health and Safety in the Land-based Workplace	—		N/A
40	Waste Management	—		N/A
41	Develop and Implement Plans for the Storage and Disposal of Inorganic Waste	—		N/A
42	Professional Garden Design Practice	—		N/A
43	Major Integrated Garden Design Project	—		N/A
44	Historical Influence in Garden Design	36	Historical Influence in Garden Design	N/A
45	Graphic Skills for Garden Designers	—		N/A
46	Garden Styles and their Influence	—		N/A
47	Advanced Garden Design	—		N/A
48	Landscape Design Process	31	Design Process	Addition of <i>Health and safety</i> topic to Learning Outcome 2: Understand the use of water and sculptures in private and public spaces.
49	Planting Design	32	Planting Design	N/A

2011 units		2003 units		Mapping/comments (new topics in italics)
Number	Name	Number	Name	
50	Contract Documentation and Management for Land-based Industries	35	Contract Documentation and Management for Land-based Industries	Unit looks into greater depth contract documentation and how they are used in land-based project work. <i>Understand types of contract and associated documentation required for land-based projects.</i> <i>Understand how works are specified in contracts.</i> <i>Understand provisions of the contract documents required for land-based projects.</i> <i>Be able to apply the contract documents to all stages of land-based project work.</i>
51	Principles of Ecology	42	Principles of Ecology	N/A
52	Quality and Performance Standards for Turf	34	Quality and Performance Standards for Turf	N/A
53	Construction and Maintenance of Sports Turf Surfaces	33	Construction and Maintenance of Sports Turf Surfaces	N/A
54	Mechanisation Management – Turf	37	Mechanisation Management – Turf	Two Learning Outcomes – Investigate the range of tractors and power units available and Investigate the range of pedestrian and hand-held machinery and equipment available have been combined to create one Learning Outcome: <i>Be able to report on tractors and machinery.</i> Unit now consists of three Learning Outcomes.
55	Grassland Management	38	Grassland Management	N/A
56	Non-Grass Playing Surfaces	39	Non-Grass Playing Surfaces	N/A
57	Golf Course Planning	40	Golf Course Planning	N/A

2011 units		2003 units		Mapping/comments (new topics in italics)
Number	Name	Number	Name	
58	Turf Irrigation Systems	41	Turf Irrigation Systems	N/A
59	Arboricultural Management	—		N/A

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# Annexe E

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## Calculation of the qualification grade

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### Pass qualification grade

Learners who achieve the minimum eligible credit value specified by the rule of combination will achieve the qualification at pass grade (see section *Rules of combination for BTEC Levels 4 and 5 Higher National qualifications*).

### Qualification grades above pass grade

Learners will be awarded a merit or distinction qualification grade by the aggregation of points gained through the successful achievement of individual units. **The graded section of both qualifications is based on the learner's best performance in units at the level or above of the qualification to the value of 75 credits.**

The number of points available is dependent on the unit grade achieved and the credit size of the unit (as shown in the table below).

### Points available per credit at specified unit grades

Points per credit		
Pass	Merit	Distinction
0	1	2

So a 15 credit unit awarded a merit grade will gain 15 points.

### Qualification grades

#### BTEC Level 4 HNC

Points range	Grade	
0-74	Pass	P
75-149	Merit	M
150	Distinction	D

#### BTEC Level 5 HND

Points range	Grade	
0-74	Pass	P
75-149	Merit	M
150	Distinction	D



These are some examples of how the HNC Diploma grades are calculated:

**Example 1: Achievement of a BTEC HNC Diploma with Pass grade**

		Level	Credit	Grade	Grade points	Points per unit (weighting x credit points)
Unit 1	Mandatory core unit	4	15	P	0	
Unit 2	Mandatory core unit	4	15	P	0	
Unit 3	Mandatory core unit	4	15	M	1	15
Unit 4	Mandatory core unit	4	15	M	1	15
Unit 15	Specialist unit	5	15	P	0	
Unit 17	Specialist unit	5	15	P	0	
Unit 18	Specialist unit	4	15	M	1	15
Unit 12	Specialist unit	4	15	M	1	15
Unit 14	Specialist unit	4	10	D	2	20
<b>Qualification total requirement 120</b>			<b>130</b>			<b>60</b>

Unit 14 is not included as it is an additional unit on top of the 120 credit qualification

The learner can only include the points from the best 75 out of 120 credits in a valid combination.

**Example 2: Achievement of a BTEC HNC Diploma with Merit grade**

		Level	Credit	Grade	Grade points	Points per unit (weighting x credit points)
Unit 1	Mandatory core unit	4	15	M	1	15
Unit 2	Mandatory core unit	4	15	P	0	
Unit 3	Mandatory core unit	4	15	M	1	15
Unit 4	Mandatory core unit	4	15	P	0	
Unit 15	Specialist unit	5	15	P	0	
Unit 9	Specialist unit	4	15	M	1	15
Unit 18	Specialist unit	4	15	M	1	15
Unit 12	specialist unit	4	15	M	1	15
<b>Qualification total requirement 120</b>			<b>120</b>			<b>75</b>

The best 75 credits include both core and optional units.

The learner has sufficient points for a merit.

### Example 3: Achievement of an HNC Diploma with Distinction grade

		Level	Credit	Grade	Grade points	Points per unit (weighting x credit points)
Unit 1	Mandatory core unit	4	15	M	1	(15)
Unit 2	Mandatory core unit	4	15	P	0	
Unit 3	Mandatory core unit	4	15	D	2	30
Unit 4	Mandatory core unit	4	15	P	0	
Unit 15	Specialist unit	4	15	D	2	30
Unit 17	Specialist unit	4	15	D	2	30
Unit 9	Specialist unit	4	15	D	2	30
Unit 12	Specialist unit	4	15	D	2	30
<b>Qualification total requirement- 120</b>			<b>120</b>			<b>150</b>

The learner has grade points in more than 75 credits. The best performance is used to calculate the grade. These can be level 4/5 for the HNC

The learner has enough points for a Distinction from 75 credits.

### Examples for the HND Diploma:

The tables below give examples of how the overall grade is determined.

**Only points from units at or above the level of the qualification can be counted towards the grade.**

**Examples used are for illustrative purposes only. Other unit combinations are possible.**

#### Example 1: Achievement of an HND Diploma with a pass grade

		Level	Credit	Grade	Grade points	Points per unit (weighting x credit points)
Unit 1	Mandatory core unit	4	15	P	X	
Unit 2	Mandatory core unit	4	15	M	X	
Unit 3	Mandatory core unit	4	15	M	X	
Unit 4	Mandatory core unit	4	15	M	X	
Unit 5	Mandatory core unit	4	15	M	X	
Unit 6	Mandatory core unit	5	15	P	0	
Unit 7	Mandatory core unit	5	15	M	1	15
Unit 8	Mandatory core unit	5	20	P	0	
Unit 20	Specialist unit	5	15	M	1	15
Unit 21	Specialist unit	5	15	P	0	
Unit 23	Specialist unit	5	15	P	0	
Unit 25	Specialist unit	4	15	P	X	
Unit 26	Specialist unit	5	15	M	1	15
Unit 29	Specialist unit	4	15	M	X	
Unit 33	Specialist unit	4	15	M	X	
Unit 35	Specialist unit	5	15	M	1	15
<b>Qualification grade totals</b>		<b>Min 125 at level 5</b>	<b>245</b>			<b>60</b>

Count the points from level 5 units for the best 75 credits  
 X these units are **below** the level of the HND Diploma so not counted for grading

The learner has sufficient points for a pass grade.

## Example 2

### Achievement of an HND Diploma with a Merit grade

		Level	Credit	Grade	Grade points	Points per unit (weighting x credit points)
Unit 1	Mandatory core unit	4	15	P	X	
Unit 2	Mandatory core unit	4	15	M	X	
Unit 3	Mandatory core unit	4	15	M	X	
Unit 4	Mandatory core unit	4	15	M	X	
Unit 5	Mandatory core unit	4	15	M	X	
Unit 6	Mandatory core unit	5	15	M	1	15
Unit 7	Mandatory core unit	5	15	D	2	30
Unit 8	Mandatory core unit	5	20	D	2	40
Unit 20	Specialist unit	5	15	M	1	15
Unit 21	Specialist unit	5	15	M	1	(15)
Unit 23	Specialist unit	5	15	P	0	
Unit 25	Specialist unit	4	15	P	X	
Unit 26	Specialist unit	5	15	M	1	(15)
Unit 29	Specialist unit	4	15	M	X	
Unit 33	Specialist unit	4	15	M	X	
Unit 35	Specialist unit	5	15	M	1	(15)
Unit 36	Specialist unit	5	10	D	2	20
<b>Qualification grade totals</b>		<b>Min 125 at level 5</b>	<b>255</b>			<b>120</b>

The learner can be considered for a merit:

only count the points from **the best 75** credits from a valid combination of 240 credits  
 X these units are **below** the level of the qualification so **cannot** be counted for grading

The best 75 credits include both mandatory core and optional units  
 () these units are not counted in the overall score

The learner has sufficient points for a merit grade.

### Example 3

#### Achievement of an HND Diploma with a distinction grade

		Level	Credit	Grade	Grade points	Points per unit (weighting x credit points)
Unit 1	Mandatory core unit	4	15	P	X	
Unit 2	Mandatory core unit	4	15	M	X	
Unit 3	Mandatory core unit	4	15	D	X	
Unit 4	Mandatory core unit	4	15	D	X	
Unit 5	Mandatory core unit	4	15	M	X	
Unit 6	Mandatory core unit	5	15	D	2	30
Unit 7	Mandatory core unit	5	15	D	2	30
Unit 8	Mandatory core unit	5	20	D	2	30
Unit 20	Specialist unit	5	15	D	2	30
Unit 21	Specialist unit	5	15	D	2	30
Unit 23	Specialist unit	5	15	P	0	
Unit 25	Specialist unit	4	15	P	X	
Unit 26	Specialist unit	5	15	M	1	(15)
Unit 29	Specialist unit	4	15	M	X	
Unit 33	Specialist unit	4	15	M	X	
Unit 35	Specialist unit	5	15	M	1	(15)
Unit 36	Specialist unit	4	15	P	X	
<b>Qualification grade totals</b>		<b>Min 125 at level 5</b>	<b>245</b>			<b>150</b>

The learner can be considered for a distinction: only count the points from level 5 units for the best 75 credits from a valid combination of **240** credits  
 () these units are not counted in the overall score  
 X not counted as **below the** level of the qualification.

The learner has sufficient points for a distinction grade.

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