Pearson BTEC Level 2 Diploma in Healthcare Science

Specification

Competence-based qualification

Issue 2

About Pearson

We are the world's learning company operating in 70 countries around the world with more than 22,500 employees. We provide content, assessment and digital services to schools, colleges and universities, as well as professional and vocational education to learners to help increase their skills and lifelong employability prospects. We believe that wherever learning flourishes so do people.

This specification is Issue 2. Key changes are summarised on the following page. We will inform centres of any changes to this issue. The latest issue can be found on our website.

References to third-party material made in this specification are made in good faith. Pearson does not endorse, approve or accept responsibility for the content of materials, which may be subject to change, or any opinions expressed therein. (Material may include textbooks, journals, magazines and other publications and websites.)

All information in this specification is correct at time of publication.

Publication code: VQ000150

Summary of changes to Pearson BTEC Level 2 Diploma in Healthcare Science specification Issue 2

Please note: this specification contains only mandatory units. Please refer to the qualification page on our website: qualifications.pearson.com

Summary of changes made between previous issue and this issue	Page number
Unit 4 amended LO1 and removed AC1.3.	39
Unit 7 added additional information for AC2.2, 2.3 & 2.5. Amended LO1, AC1.1 – 1.3, LO2, AC2.2 – 2.5, AC3.1 – 3.3, AC5.1, 5.3 & 5.4.	Refer to unit 7
Unit 8 amended AC1.1, 1.2, 2.1, 2.2, 3.2, 3.3, 4.1, 4.2, 5.2, 6.2 & 6.3. Removed AC5.3 & 6.1.	Refer to unit 8
Unit 9 amended AC1.1 – 1.4, AC2.1 – 2.3, AC3.1 – 3.3, AC4.1 – 4.4, AC6.1 & AC7.2. Removed AC3.4 and LO5.	Refer to unit 9
Unit 13 amended additional information for AC2.1 and AC3.1, to include washer/disinfectors.	Refer to unit 13
Unit 16 minor amendment to AC5.2 and included additional information for AC5.2.	Refer to unit 16
Unit 18 added new AC3.6.	Refer to unit 18
Unit 19 amended AC3.6. Removed AC5.2 & renumbered other AC in LO5. Added additional content for AC3.6.	Refer to unit 19
Unit 21 additional information added for AC3.3.	Refer to unit 21
Unit 22 amended AC1.1, 1.2, AC2.1 & 2.2. AC3.2 becomes AC1.5. LO4 renumbered as LO3.	Refer to unit 22
Unit 25 amended AC1.1, 1.2, 1.5 & 1.6, AC3.1. Removed LO2 & AC2.1 becomes AC1.2 – AC renumbered throughout LO1. Removed AC3.2 & 3.3 & renumbered LO3 as LO2.	Refer to unit 25
Unit 27 amended AC1.1, 2.1 & 3.1. Removed AC1.2, 1.6 & 3.2.	Refer to unit 27
Unit 28 amended AC1.1 & 3.1.	Refer to unit 28
Unit 29 amended AC1.3, 3.1, 3.2, 3.3 & 4.3. AC1.2 becomes AC1.1 & AC1.1 becomes AC1.2. Removed AC1.4 & AC3.4.	Refer to unit 29

Summary of changes made between previous issue and this issue	Page number
Unit 33 additional information added for AC3.1.	Refer to unit 33
Unit 35 amended unit title. Amended LO1, AC1.1, AC1.2 (now AC1.3), AC1.4. Added new AC1.2 and removed AC1.3. Amended LO2, AC2.1 & 2.2, LO3, AC3.1, 3.2 & 3.3.	Refer to unit 35
Unit 36 amended unit title. Amended LO2, AC2.1 & 2.3. Removed LO3.	Refer to unit 36
Unit 38 amended additional information for AC3.1 and AC3.2. Added new AC2.3 and AC5.3.	Refer to unit 38
Unit 48 amended AC1.1, 1.3, 2.1-2.5, 3.1 & 3.2. Removed LO4 and associated AC. Renumbered LO5 as LO4.	Refer to unit 48
Unit 55 amendment to learning outcome 1.	Refer to unit 55
Unit 56 amended unit title to include 'Ionising', as the unit does not cover non-ionising radiation. Amended AC1.1. Removed AC5.2 as this is a duplication of AC3.2. Renumbered AC within LO5.	Refer to unit 56
Unit 57 minor amendment to AC2.2 and inclusion of additional information for AC2.2.	Refer to unit 57
Unit 61 amended unit title as the unit relates to infection screening and test is ambiguous.	Refer to unit 61
Unit 63 changed credit value to 3 and GLH to 24 hours – to provide parity with the Level 3 Healthcare Support Worker standard for the same unit. Added new LO2 and renumbered other LO accordingly. Amended AC1.1 and AC3.3.	Refer to unit 63
Unit 65 amended AC1.5. Removed additional information for AC1.5.	Refer to unit 65
Unit 72 minor amendment to AC3.5 (inclusion of 'adult').	Refer to unit 72
Unit 73 amended additional information for AC1.4 and added additional information for LO2. Amended AC1.1 – 1.5, AC2.1- 2.4, AC4.3 & 4.6, AC6.1 & 6.2. Amended LO4 and added new AC2.7.	Refer to unit 73
Unit 74 added additional information for LO2. Amended AC1.1, 1.2 & 1.4, AC2.1 – 2.3, AC3.1 – 3.4, AC5.4 (now 5.3) & 5.8 (now 5.7), AC6.1, AC7.1 & AC7.2. Removed AC5.1 due to repetition.	Refer to unit 74
Unit 75 added additional information for AC5.1. Amended AC1.1, 1.3, 3.3, 5.1 & 5.2.	Refer to unit 75

Summary of changes made between previous issue and this issue	Page number
Unit 76 - unit level reduced to level 2. Added essential prior units. Corrected additional information for AC1.3, not 3.3. Additional information added for AC2.1 and AC5.4. Amended LO1, AC1.1-1.7, AC2.1, AC3.5 & AC5.1. Removed AC2.3.	Refer to unit 76
Unit 77 – unit level reduced to level 2. Amended LO1, AC1.1 – 1.5 & 1.7, AC3.1 (now 2.1) & AC3.6 (now2.6), AC5.8 (now 4.7) & AC5.11 (now AC4.10). Removed LO2 and AC5.7 and renumbered accordingly.	Refer to unit 77
Unit 78 removed the pre-requisite for this unit of unit 72. Minor amendment to AC4.6. LO5 amended to correct the reference to manual BP measurement not automatic.	Refer to unit 78
Unit 79 amended unit title. Added additional guidance for LO2. Amended additional information for AC4.3. Amended AC1.3, AC2.1, AC2.2, AC2.6, AC2.7. Reduced AC2.8 & AC2.9 to one AC2.8. Amended AC3.1, AC5.4, AC6.1, AC6.3, reduced AC6.3 & AC6.4 to one AC6.3. Amended AC8.1, AC9.7, AC10.2 & AC12.2. Added new AC10.3 & renumbered accordingly. Amended AC10.5 (now AC10.6), LO11, AC11.1, AC11.2, AC11.3 & AC11.7.	Refer to unit 79
Unit 80 amended AC1.1, AC1.3, AC2.1, AC2.2, AC3.3 & AC5.1.	Refer to unit 80
Unit 81 amended AC1.3, AC2.3, AC2.6, AC2.7, AC2.8, AC3.1, AC3.3, AC4.4, AC5.3, AC8.1, AC8.8, AC11.2 & AC12.1. Removed AC2.9. Added to additional information for unit.	Refer to unit 81
Unit 82 added reference to national standard for performing spirometry and amended additional information for AC1.1 & AC2.1. Included additional information for AC3.6. Amended AC2.1, AC2.3, AC3.3 and AC3.4.	Refer to unit 82
Unit 84 amended unit title to remove 'Basic'. Amended AC1.2. Removed AC2.1 & 2.2 and renumbered accordingly. Amended AC2.5 (now AC2.3) and AC2.6 (now AC2.4). Amended AC3.1 minor change to wording of AC3.2. Added new AC5.2 and renumbered accordingly. Amended AC5.2 (now AC5.3). Amended AC7.1.	Refer to unit 84
Unit 85 renumbered additional information. Removed AC1.1 & 1.2 and renumbered accordingly. Amended AC1.3 (now AC1.1), AC1.4 (now AC1.2) and AC1.8 (now AC1.6). Amended AC2.1, AC3.1 and AC3.2.	Refer to unit 85

Summary of changes made between previous issue and this issue	Page number
Unit 86 removed AC1.1 & 1.2 and renumbered accordingly. Added new AC1.1 & 1.3. Removed AC1.4 & 1.6. Amended AC2.1. Amended AC3.1& AC3.3 (now AC3.4). Added new AC3.2 and 3.3 and renumbered AC in LO3 accordingly. Amended AC4.1.	Refer to unit 86
Unit 87 amended unit summary. Included additional information for AC1.1 and amended additional information for AC1.2. Removed AC1.3. Amended LO2 & AC2.1. Removed AC2.3 & 2.4 and renumbered AC2.5 as 2.3.	Refer to unit 87
Unit 91 added new AC2.5 and AC2.6. AC in LO2 renumbered accordingly.	Refer to unit 91
Unit 95 removed AC3.3. Added new AC4.7 and renumbered accordingly.	Refer to unit 95
Unit 96 added new AC2.4, 2.5 & 2.6. Amended AC2.3 (2.7), AC2.4 (2.8) & AC2.6(2.9). AC2.5 becomes AC2.3. Amended AC3.3, AC3.4, AC6.8, AC8.3, AC9.2. Amended LO10.	Refer to unit 96
Unit 97 amended AC1.2, AC3.1, AC3.2, AC3.4, AC4.4, AC4.5, AC5.2, AC5.3 & AC6.1.	Refer to unit 97
Unit 98 amended LO2 & LO6, AC2.1, AC4.1, AC4.2, AC5.2, AC7.5, AC8.2, AC8.2 & AC8.3. Removed AC6.1 and amended AC6.2 (now AC6.1).	Refer to unit 98
Unit 99 added new LO1, AC1.1-1.3 and renumbered throughout the unit. Amended AC1.3 & 1.4 (now AC2.3 & 2.4), amended AC2.3-2.6 (now 3.3-3.6), amended AC3.2-3.5 (now 4.2-4.5), amended AC6.4 (now AC7.4), added new AC10.5.	Refer to unit 99
Unit 100 amended LO1, AC1.1, AC6.2 & AC8.3. Added new AC1.3 & 1.4 and renumbered AC within LO1 accordingly.	Refer to unit 100
Unit 101 amended additional information for AC4.2. Amended LO2, AC2.1 (first bullet). Removed LO3 as this is not part of renal technology, and renumbered subsequent LOs.	Refer to unit 101
Unit 102 added new AC1.2, 1.4 & 1.6 and renumbered other AC accordingly. Amended AC2.1 and added new AC2.2. Corrected LO4 (now LO3) and amended AC4.1 (now AC3.1). Amended LO5 (now LO4) and AC5.1 (now AC4.1). Removed LO3 and renumbered other LO.	Refer to unit 102
Unit 103 minor amendment to additional information for AC10.3. Added new AC4.4 and AC5.7. Amended AC7.2, AC10.4, AC12.8 & AC14.3.	Refer to unit 103

Summary of changes made between previous issue and this issue	Page number
Unit 107 amended bulleted list in AC1.4. Removed AC2.17 and renumbered following AC.	Refer to unit 107
Unit 108 amended AC1.3, AC1.4 (now AC1.5), AC1.7 (now AC1.6), AC1.9 (now AC1.8). Added new AC1.4 and removed AC1.5 and AC1.6. Amended AC2.10 and AC2.16.	Refer to unit 108
Unit 109 amended additional information for AC1.6 and added additional information for AC1.9. Removed additional information for AC1.12. Amended AC1.5 – 1.12 and added AC1.13 & AC1.14.	Refer to unit 109
Unit 113 additional information added for AC1.1 & amended AC2.2.	Refer to unit 113
New Unit 114 Obtain and Test Capillary Blood Samples	Refer to unit 114
New Unit 115 Assist in the Administration of Oxygen	Refer to unit 115
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If you need further information on these changes or what they mean, please contact us via our website at: qualifications.pearson.com/en/support/contact-us.html.

Contents

1 Introducing the qualification

What are Pearson competence-based qualifications?

Pearson competence-based qualifications are work-based qualifications that give learners the opportunity to develop and demonstrate their competence in the area of work or job role to which the qualification relates.

Learners will develop the knowledge, skills and behaviours to become competent in the area of work or job role. The requirements to be competent are set by occupational standards/ apprenticeship standards for the appropriate sector. Pearson has worked closely with the appropriate Trailblazer group/professional body/employers in the development of this qualification. The qualifications are written in broad terms to enable employers and providers to apply them to a wide range of related occupational areas.

Please note: 'individuals' refers to those requiring care and support, and may include patients, service users or clients.

Qualification purpose

The Pearson BTEC Level 2 Diploma in Healthcare Science is for learners who are working in the role of a healthcare science assistant.

In addition to apprentices, people currently employed as healthcare science assistants can complete the qualification to confirm their knowledge, skills and behaviours of the job role.

The Healthcare Science Assistants (HCSAs) support workforce contributes to safe patient care across all pathways, from conception to end of life, in job roles within hospitals, general practice, and other settings in the healthcare sector and across all areas of healthcare science. HCSAs perform a range of low-risk, routine technical and scientific procedures, usually within one broad area of HCS, following specific protocols and in accordance with health, safety, governance and ethical requirements.

Activities undertaken by an HCSA may include basic life support, preparation of the environment for HCS procedures, production of reliable data and keeping of accurate records, stock control of equipment and consumables, and inputting and retrieving patient/test specific technical data within required governance processes.

The Pearson BTEC Level 2 Diploma in Healthcare Science is enables learners to:

- develop wider sector-related knowledge and understanding required to underpin occupational competence in the job role. This includes knowledge and understanding of the protocols and practices used in investigating and diagnosing disease and disorders, the development, provision and role of healthcare science in patient care, and the requirements and responsibilities of their own role and those of others within a healthcare science team. For details of the units included in this qualification, please see *Section 3 Qualification structure*

- develop the underpinning knowledge and understanding required to become competent in the job role. Learners will be able to gain underpinning knowledge from the following themes: pathology investigations of disease and disorders, clinical investigations of human functions and systems, imaging investigations and medical physics and clinical engineering.
- develop fundamental technical skills and abilities to support competence in the job role. This includes skills in supporting audits, carrying out basic investigations, maintaining accurate records and using and maintaining equipment and materials safely, and the ability, and associated skills to work collaboratively with other healthcare science professionals
- gain recognition for existing skills and knowledge
- develop appropriate professional attitudes and behaviours that will support personal success in their job role and the long-term success of their organisation
- develop a range of interpersonal and intrapersonal skills to support progression to, and success in, further study and career advancement
- achieve a nationally-recognised Level 2 qualification.

Industry support and recognition

The Pearson BTEC Level 2 Diploma in Healthcare Science was developed through close collaboration with the Healthcare Science Trailblazer employer group, employers, professional bodies and other awarding organisations.

This qualification is supported by the following, as part of the Trailblazer Group:

- employers: Newcastle upon Tyne Hospitals NHS Trust, Sheffield Teaching Hospital NHS Foundation Trust, NHS Blood and Transplant – Newcastle Centre, Gloucestershire Hospitals Foundation NHS Trust, The Royal Marsden NHS Foundation Trust, Western Sussex Hospitals Foundation Trust, Public Health Laboratory (Bristol), Sherwood Forest Hospital NHS Foundation Trust, West Hertfordshire Hospitals NHS Trust, Cardiff and Vale University Health Board, University Hospital of Wales, Doncaster and Bassetlaw Hospitals NHS Foundation Trust, Royal Cornwall Hospital, East Kent NHS Foundation Trust, Viapath
- professional organisations: National School of Healthcare Science, Health Education England, Institute of Decontamination Sciences, Academy for Healthcare Science and Associate of Health Professions in Ophthalmology

Funding

Qualifications eligible and funded for post-16-year-olds can be found on the funding Hub.

The apprenticeship funding rules can be found at www.gov.uk.

For further information on the requirements for delivery and assessment of the Apprenticeship Standards, please refer to the apprenticeship funding rules for employers at:
https://www.gov.uk/guidance/apprenticeship-funding-rules-for-employers

2 Qualification summary and key information

Qualification title	Pearson BTEC Level 2 Diploma in Healthcare Science
Qualification Number (QN)	603/0626/9
Regulation start date	30/09/2016
Operational start date	01/10/2016
Approved age ranges	16–18 18+ 19+
Total Qualification Time (TQT)	400 hours.
Guided Learning Hours (GLH)	265
Credit value	40
Assessment	Internal assessment (portfolio of evidence).
Grading information	The qualification and units are graded Pass/Fail.
Entry requirements	Learners must be working in the job role of Healthcare Science Assistant. Apprenticeship learners must be employed as an apprentice in that role. No prior knowledge, understanding, skills or qualifications are required before learners register for this qualification. Centres must follow the information in our document, *A guide to recruiting learners onto Pearson qualifications* and *Section 6 Access to qualifications*.

Qualification title	Pearson BTEC Level 2 Diploma in Healthcare Science
Apprenticeship	The Pearson BTEC Level 2 Diploma in Healthcare Science is a mandatory requirement of the Healthcare Science Assistant Apprenticeship Standard. Learners must achieve this qualification before progressing to the end-point assessment.
Progression	Learners who achieve the Pearson BTEC Level 2 Diploma in Healthcare Science can progress to achieving the full apprenticeship certification that confirms competency in the job role(s) stated above. Learners can also progress to the Pearson BTEC Level 4 Diploma in Healthcare Science. Alternatively, learners who have achieved the qualification outside an apprenticeship or who have not met the other apprenticeship requirements could progress to job roles in healthcare science across all care pathways, from conception to end of life, in job roles within hospitals, general practice and other settings in the healthcare sector and across all areas of healthcare science.

3 Qualification structure

Pearson BTEC Level 2 Diploma in Healthcare Science

The requirements outlined in the table below must be met for Pearson to award the qualification.

For a list of healthcare science specialisms go to: http://www.ahcs.ac.uk/about-us/about-healthcare-science/

Minimum number of credits that must be achieved	40
Number of mandatory credits that must be achieved	14
Number of optional credits that must be achieved	26

Unit number	Mandatory units	Level	Credit	Guided learning hours
1	Healthcare Science Services	2	3	20
2	Employee Rights, Responsibilities and Personal Development in Healthcare Science	2	3	20
3	Working in Partnership in Healthcare Science	2	3	26
4	Investigating, Treating and Managing Human Disease and Disorder	2	2	17
5	Working Safely in the Healthcare Science Environment	2	3	20
Unit number	**Optional units**	**Level**	**Credit**	**Guided learning hours**
6	Health and Disease	2	3	24
7	Introduction to Genomics, Clinical Bioinformatics and Precision Medicine	2	3	16
8	Enzymes and Cells in the Human Body	1	3	27

Unit number	Optional units	Level	Credit	Guided learning hours
9	Introduction to Human Cell and Tissue Structures	2	3	14
10	Introduction to Transfusion and Transplantation	2	2	11
11	Causes of Disease and Maintaining Health	2	4	40
12	Causes and Spread of Infection	2	2	20
13	Introduction to Decontamination Science	2	3	20
14	Basic Workplace Procedures and Practice	2	8	65
15	Cleaning, Decontamination and Waste Management	2	2	20
16	Managing Conflict in the Workplace when Dealing with Customers, Service Users, or the Public	2	2	10
17	Introduction to Laboratory Practice in the HFEA-Licensed Reproductive Science Laboratory	2	2	11
18	Principles and Organisation of Services in the HFEA-Licensed Fertility Clinic	2	2	12
19	Using a Specified Test for a Biological Sample	2	2	11
20	Automated Urinary Screening	2	2	12
21	Introduction to Anatomy and Physiology	2	3	21
22	Anatomy and Physiology: The Reproductive System	2	2	9
23	Anatomy and Physiology: The Nervous System	2	4	26

Unit number	Optional units	Level	Credit	Guided learning hours
24	Anatomy and Physiology: Cardiovascular, Lymphatic and Respiratory Systems	2	3	23
25	Anatomy and Physiology: The Skeletal System	2	2	12
26	Anatomy and Physiology: Urogenital System	2	2	14
27	Anatomy and Physiology: The Digestive System	2	1	8
28	Anatomy and Physiology: The Integumentary System	2	1	7
29	Anatomy and Physiology: The Endocrine System	2	2	12
30	The NHS Constitution	2	1	6
31	Chaperoning	2	1	5
32	Maintaining Quality Standards in the Health Sector	2	1	6
33	Introduction to Disability Awareness	2	2	12
34	Principles of Safeguarding and Protection	2	2	10
35	Understanding Hearing Loss	2	3	24
36	Introduction to Hearing Loss	2	1	8
37	Introduction to Visual Impairment	2	1	7
38	Introduction to Clinical Engineering	2	2	12
39	Introduction to Nuclear Medicine	2	2	12
40	Principles of Risk Assessment in the Workplace	2	1	10
41	Working within a Reception Service in Healthcare Science	2	2	13
42	Administer Appointments in a Healthcare Environment	2	3	18

Unit number	Optional units	Level	Credit	Guided learning hours
43	Communicating Information to Authorised Personnel under Supervision	2	3	18
44	Accessing, Registering and Inputting Batch/Sample Data in a LIMS under Supervision	2	6	34
45	Maintain Stocks of Resources, Equipment and Consumables for Scientific, Technical or Clinical Use	2	4	37
46	Store Biomedical Specimens and Samples	2	2	16
47	Monitor and Maintain the Healthcare Science Environment Before, During and After Work Activities	2	3	20
48	Prepare Aseptic Products	2	10	40
49	Prepare Blood Donations, Samples and Documentation for Transport	2	2	17
50	Assist with the Monitoring and Maintenance of the Cryopreservation Facility in the HFEA-Licensed Fertility Clinic	2	3	19
51	Introduction to Laboratory Practice	2	2	13
52	Basic Adult Life Support and Automated External Defibrillation	2	2	20
53	Following Aseptic Procedures in the Laboratory Environment	2	9	51
54	Safe Handling of Liquid Nitrogen	2	1	8
55	Select and Wear Appropriate Personal Protective Equipment for Work in Healthcare Settings	2	2	15
56	Introduction to Working in Ionising Radiation Safety/Protection	2	3	18

Unit number	Optional units	Level	Credit	Guided learning hours
57	Promote Good Practice in Handling Information in Healthcare Science Settings	2	1	5
58	Prepare Individuals for Healthcare Activities	2	3	17
59	Support Individuals Undergoing Healthcare Activities	2	3	22
60	Move People Safely	2	2	10
61	Check Documentation of Infection Screening Results in the HFEA-Licensed Fertility Clinic	3	2	13
62	Obtain and Test Specimens from Individuals	2	2	12
63	Obtain Venous Blood Samples	3	3	24
64	Receiving, Sorting, Transporting and Storing Laboratory Specimens/Samples under Supervision	2	9	51
65	Carry out Simple Scientific or Technical Tests using Automated/Semi-Automated Equipment	2	10	70
66	Carry out Sampling Operations for Scientific or Technical Tests	2	5	42
67	Preparing Culture Media and Solutions for Laboratory Use	2	3	18
68	Assisting with the Preparation of Specimens/Samples for Laboratory Investigations	2	2	11
69	Assisting with the Processing of Liquid Clinical Specimens using Automated Laboratory Equipment	2	10	57
70	Performing Automated Urinary Screening	2	1	7

Unit number	Optional units	Level	Credit	Guided learning hours
71	Pipetting for Glomerular Filtration Rate	2	1	8
72	Measuring Blood Pressure using an Automatic Machine	2	1	8
73	Performing Routine Electrocardiography in Adults	2	2	13
74	Performing Routine Electrocardiography in Children	3	2	13
75	Setting up a Cardiac Monitor	2	1	9
76	Fitting a 24hr Ambulatory ECG Monitor	2	2	12
77	Fitting a 24hr Ambulatory Blood Pressure Monitor	2	2	12
78	Manual Blood Pressure Measurement	3	2	11
79	Performing Spirometry and Bronchodilator Response in Adults	2	4	22
80	Performing Spot Oxygen Measurements	2	2	11
81	Performing Spirometry in Children	3	3	19
82	Interpreting and Reporting Spirometry Results	3	1	8
83	Measuring Ankle Brachial Pressure Index	3	2	14
84	Performing Basic Otoscopic Examinations	2	2	12
85	Hearing Aid Services	2	2	10
86	Producing Ear Moulds to Maximise Patient Satisfaction	2	2	10
87	Communicating with People with a Hearing Loss	2	1	7
88	Measuring Visual Acuity	3	3	17

Unit number	Optional units	Level	Credit	Guided learning hours
89	Performing a Breath Test for Small Intestinal Bacterial Overgrowth (SIBO)	2	2	10
90	Performing a ^{13}C Urea Breath Test to Detect Helicobacter Pylori	2	1	9
91	Care of Diabetic Patients during Gastrointestinal Physiology Investigations	3	1	10
92	Assisting with Percutaneous Tibial Nerve Stimulation (PTNS) in Patients with Faecal Incontinence	3	2	10
93	Performing a Urine Flow Test	2	2	13
94	Introduction to Working in Nuclear Medicine	2	3	19
95	Introduction to Working in a Mould Room	2	1	9
96	Receiving, Cleaning and Disinfection of Reusable Medical Devices	2	4	21
97	Inspection, Function Testing, Assembly and Packaging within a Controlled (Clean) Environment	2	3	19
98	Terminal Process (Sterilisation)	2	3	18
99	Receiving, Cleaning and Disinfection of Reusable Flexible Endoscopes	2	3	21
100	Managing Product Release of Flexible Endoscopes	2	2	11
101	Maintenance and Calibration of Renal Dialysis Equipment	2	1	9
102	Maintenance and Calibration of Theatre Equipment	2	1	9
103	Introduction to Working in Clinical Engineering	2	4	33
104	Maintaining and Improving Quality in Healthcare Science	2	1	6

Unit number	Optional units	Level	Credit	Guided learning hours
105	Monitor Air Quality in the HFEA-Licensed Fertility Clinic	3	3	17
106	Working Safely within the Cryopreservation Facility	2	1	6
107	Accessing, Registering and Inputting Patient Data in a LIMS under Supervision	2	6	34
108	Assisting with the Preparation of Biopsy Specimens for Laboratory Investigations	2	3	17
109	Assisting with the Preparation of Microbiological Specimens/Samples for Laboratory Investigations	2	11	63
110	Assisting with the Processing of Diagnostic Cytology Specimens in the Laboratory	2	3	17
111	Contribute to the Effectiveness of Teams	2	3	5
112	Contribute to Effective Multidisciplinary Team Working	2	3	20
113	Continual Personal and Professional Development for Healthcare Science Assistants	2	2	12
114	Obtain and Test Capillary Blood Samples	3	4	30
115	Assist in the Administration of Oxygen	3	5	40
116	Sleep Diagnostics	3	10	90

4 Assessment requirements

The units in this qualification are all internally assessed.

Assessment strategy

The assessment strategy for this qualification is included in *Annexe B*. It sets out the overarching assessment requirements and the framework for assessing the units to ensure that the qualification remains valid and reliable. It has been developed by the Healthcare Science Trailblazer employer group.

Language of assessment

Learners must use English only during the assessment of this qualification.

A learner taking the qualification(s) may be assessed in British Sign Language where it is permitted for the purpose of reasonable adjustment.

Further information on the use of language in qualifications is available in our *Use of languages in qualifications policy,* available on our website.

Internal assessment

The units in this qualification are assessed through an internally- and externally quality-assured Portfolio of Evidence made up of evidence gathered during the course of the learner's work.

Each unit has specified learning outcomes and assessment criteria. To pass each unit, learners must:

- achieve **all** the specified learning outcomes
- satisfy **all** the assessment criteria by providing sufficient and valid evidence for each criterion
- prove that the evidence is their own.

Learners must have an assessment record that identifies the assessment criteria that have been met. The assessment record should be cross-referenced to the evidence provided. The assessment record should include details of the type of evidence and the date of assessment. Suitable centre documentation should be used to form an assessment record.

Presenting evidence

In line with the assessment strategy, evidence for internally assessed units can take a variety of forms as indicated below:

- direct observation of the learner's performance by their assessor (O)
- outcomes from oral or written questioning (Q&A)
- products of the learner's work (P)
- personal statements and/or reflective accounts (RA)
- outcomes from simulation (S)
- professional discussion (PD)
- authentic statements/witness testimony (WT)
- expert witness testimony (EWT)
- evidence of Recognition of Prior Learning (RPL).

Learners can use the abbreviations in their portfolios for cross-referencing purposes.

Learners can also use one piece of evidence to prove their knowledge, skills and understanding across different assessment criteria and/or across different units. It is not necessary for learners to have each assessment criterion assessed separately. They should be encouraged to reference evidence to the relevant assessment criteria. However, the evidence provided for each unit must clearly reference the unit being assessed. Evidence must be available to the assessor, the internal verifier and the Pearson Standards Verifier.

Any specific evidence requirements for a unit are given in the *Unit assessment requirements* section of the unit.

Assessment of knowledge and understanding

Knowledge and understanding are key components of competent performance, but it is unlikely that performance evidence alone will provide sufficient evidence for knowledge-based learning outcomes and assessment criteria. Where the learner's knowledge and understanding is not apparent from performance evidence, it must be assessed through other valid methods and be supported by suitable evidence. The evidence provided to meet these learning outcomes and assessment criteria must be in line with the assessment strategy. Any specific assessment requirements are stated in the *Unit assessment requirements* section of each unit in *Section 9 Units*.

Assessor requirements

Centres must ensure:

- assessment is carried out by assessors with relevant expertise in both the occupational area and assessment. The requirements for assessor qualifications and experience are stated in the assessment strategy/plan in *Annexe B*.
- internal verification systems are in place to ensure the quality and authenticity of learner work, as well as the accuracy and consistency of assessment. The requirements of internal verifiers (IVs) are stated in the assessment plan/strategy in *Annexe B*.

5 Centre recognition and approval

Centres must have approval prior to delivering or assessing any of the units in this qualification.

Centres that have not previously offered Pearson competence-based qualifications need to apply for, and be granted, centre recognition and approval to offer individual qualifications.

Existing Pearson centres seeking approval to offer Pearson competence-based qualifications, will be required to submit supplementary evidence for approval, aligned with the associated standards and/or assessment requirements.

Existing centres will be given 'automatic approval' for a new qualification if they are already approved for a qualification that is being replaced by a new qualification and the conditions for automatic approval are met.

Centres offering mandatory qualifications for Apprenticeship Standards must be listed on the Education and Skills Funding Agency's Register of Training Organisations and have a contract to deliver them.

Guidance on seeking approval to deliver Pearson vocational qualifications is available on our website.

Approvals agreement

All centres are required to enter into an approval agreement with Pearson, in which the head of centre or principal agrees to meet all the requirements of the qualification specification and to comply with the policies, procedures, codes of practice and regulations of Pearson and relevant regulatory bodies. If centres do not comply with the agreement, this could result in the suspension of certification or withdrawal of centre or qualification approval.

Centre resource requirements

As part of the approval process, centres must make sure that the resource requirements below are in place before offering the qualification:

- appropriate physical resources as outlined in the Assessment Strategy in *Annexe B* (for example a workplace in line with industry standards or a Realistic Working Environment (RWE), where permitted)
- centres must meet any specific human resource requirements outlined in the Assessment Strategy in *Annexe B*
- staff assessing learners and internally verifying programmes must meet the occupational competence requirements in the Assessment Strategy
- systems to ensure continuing professional development (CPD) for staff delivering, assessing and internally verifying the qualification
- health and safety policies that relate to the use of equipment by learners
- internal verification systems and procedures (see *Section 4 Assessment requirements*)
- any unit-specific resources stated in individual units.

6 Access to qualifications

Access to qualifications for learners with disabilities or specific needs

Equality and fairness are central to our work. Our *Equality, diversity and inclusion policy* requires all learners to have equal opportunity to access our qualifications and assessments, and that our qualifications are awarded in a way that is fair 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 taking one of our qualifications, disadvantaged in comparison to learners who do not share that characteristic
- all learners achieve the recognition they deserve from their qualification and that this achievement can be compared fairly to the achievement of their peers.

For learners with disabilities and specific needs, the assessment of their potential to achieve the qualification must identify, where appropriate, the support that will be made available to them during delivery and assessment of the qualification.

Centres must deliver the qualification in accordance with current equality legislation. For full details of the Equality Act 2010, please visit www.legislation.gov.uk.

Reasonable adjustable and special consideration

Centres are permitted to make adjustments to assessment to take account of the needs of individual learners. Any reasonable adjustment must reflect the normal learning or working practice of a learner in a centre or a learner working in the occupational area.

Centres cannot apply their own special consideration – applications for special consideration must be made to Pearson and can be made on a case-by-case basis only.

Centres must follow the guidance in the Pearson document *Guidance for reasonable adjustments and special consideration in vocational internally assessed units.*

7 Recognising prior learning and achievement

Recognition of Prior Learning (RPL) 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 in and outside the workplace, 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. If 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 sufficient, reliable and valid.

Further guidance is available in our policy document *Recognition of prior learning policy and process*, available on our website.

8 Quality assurance of centres

For the qualification in this specification, the Pearson quality assurance model will consist of the following processes.

Centres will receive at least one visit from our Standards Verifier, followed by ongoing support and development. This may result in more visits or remote support, as required to complete standards verification. The exact frequency and duration of Standards Verifier visits/remote sampling will reflect the level of risk associated with a programme, taking account of the:

- number of assessment sites
- number and throughput of learners
- number and turnover of assessors
- number and turnover of internal verifiers
- amount of previous experience of delivery.

If a centre is offering a Pearson competence-based qualification alongside other qualifications related to a similar Apprenticeship Standard, wherever possible we will allocate the same Standards Verifier for both qualifications.

Following registration, centres will be given further quality assurance and sampling guidance.

For further details, please see the work-based learning quality assurance handbooks, available in the support section of our website:

- *Pearson centre guide to quality assurance – NVQs/SVQs and competence-based qualifications*
- *Pearson delivery guidance and quality assurance requirements – NVQs/SVQs and competence-based qualifications.*

9 Units

This section of the specification contains the mandatory units that form the assessment for the qualification. For all optional units, please refer to the qualification page on our website.

For explanation of the terms within the units, please refer to *Section 13 Glossary*.

It is compulsory for learners to meet the learning outcomes and the assessment criteria to achieve a Pass. The unit assessment requirements must also be met by the evidence that is provided by the learner.

Where legislation is included in delivery and assessment, centres must ensure that it is current and up to date.

Unit 1: Healthcare Science Services

Level: 2

Unit type: Mandatory

Credit value: 3

Guided learning hours: 20

Unit summary

This unit introduces learners to the development of healthcare science in the 21st century and to the current range of healthcare science services. The unit also covers the application and interaction of these services within the broader healthcare environment. Learners will explore how important it is to follow procedures to ensure that quality is maintained and monitored.

Learners will gain an understanding of the roles and responsibilities of members of a healthcare science team. They will learn how they can make an effective contribution to the team's work in development and innovation within the context of healthcare science.

The unit will help learners to understand the importance of using standard operating procedures (SOPs) and working within the limits of their own role, while developing their skills and abilities within a chosen field.

Unit assessment requirements

Assessment tasks and activities must enable learners to produce valid, sufficient, authentic and appropriate evidence that relates directly to the learning outcomes and assessment criteria of the unit.

For learning outcomes 1, 2 and 3, suitable forms of evidence include:

- written tasks such as a report, an article for a journal or newsletter
- reflective account or learner diary record
- written or oral presentation
- oral question and answer.

For learning outcomes 5 and 6, suitable evidence of achievement would come from a combination of observation of the learner, witness testimony, work products and questions and answers.

Additional information

For AC1.1, healthcare divisions include:

- life sciences, e.g. toxicology, pathology, clinical genetics, blood transfusion, tissue banking
- physiological sciences, e.g. critical care, ophthalmology, respiratory physiology, vascular science
- clinical bioinformatics, e.g. health informatics; physical sciences and biomedical engineering, e.g. renal dialysis technology, medical electronics and instrumentation.

For AC1.2, specialisms include:

- infection control, histopathology, transfusions, audiology, ophthalmology, rehabilitative technology, renal dialysis technology, radiation safety physics, pharmaceutics.

For AC2.1, range of healthcare science services include:

- clinical investigation, renal dialysis, rehabilitative technology, Magnetic Resonance Imaging (MRI), ultrasound scanning, clinical photography.

Learning outcomes and assessment criteria

To pass this unit, learners need to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Know how healthcare science services are provided and their interaction with other healthcare services in the UK	1.1	Describe how the main divisions of healthcare science function in patient care			
		1.2	Describe the key functions of the different specialisms within healthcare science in relation to patient care			
		1.3	Describe how healthcare science interacts with other healthcare professions			
2	Understand the relevance of healthcare science services to patient care pathways	2.1	Identify the range of services offered by healthcare science service providers			
		2.2	Explain the relationship between the provision of healthcare science services and different patient pathways			
		2.3	Explain the importance of healthcare science services to patient management, treatment and progress			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Understand the role of healthcare scientists in person-centred care	3.1	Explain what is meant by 'person-centred care'			
		3.2	Explain how person-centred care plans are produced			
		3.3	Describe how the key functions of healthcare science contribute to person-centred care			
4	Be able to support an audit within healthcare science services	4.1	Explain the difference between audit, research, and service improvement			
		4.2	State the importance of audit, research, and service improvement to healthcare science services			
		4.3	Contribute appropriately to audit activity in a healthcare science setting			
5	Be able to use Standard Operating Procedures (SOPs) within the healthcare science environment	5.1	Explain the importance of Standard Operating Procedures (SOPs) in the healthcare science working environment			
		5.2	Identify relevant contacts for support and advice relating to SOPs			
		5.3	Describe the responsibilities for the development of SOPs in healthcare science services			
		5.4	Apply relevant SOPs appropriately to own working practice			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
6	Know how the healthcare service in the UK developed into the 21st century	6.1	Outline the role of the National Health Service (NHS) in maintaining and improving the health of the United Kingdom population			
		6.2	Describe developments in health provision that have influenced the role of healthcare science			

Learner name: _____ Date: _____

Learner signature: _____ Date: _____

Assessor signature: _____ Date: _____

Internal verifier signature: _____ Date: _____
(*if sampled*)

Unit 2: Employee Rights, Responsibilities and Personal Development in Healthcare Science

Level:	**2**
Unit type:	**Mandatory**
Credit value:	**3**
Guided learning hours:	**20**

Unit summary

This unit develops learners' knowledge of the key rights and responsibilities of employees and employers. Learners will explore career advancement opportunities in their own industries.

Learners will work within the organisation's codes of practice. They will also use effective study skills, including reflective practice in developing an informed view of issues of public concern related to the healthcare science industry.

Unit assessment requirements

Assessment tasks and activities must enable learners to produce valid, sufficient, authentic and appropriate evidence that relates directly to the learning outcomes and assessment criteria of the unit.

For learning outcomes 1 and 2, suitable forms of evidence include:

- written tasks such as a report, a poster or newsletter
- written or oral presentation
- oral questions and answers.

For learning outcome 3, suitable evidence of achievement would come from a combination of reflective accounts or learner diary records and a witness testimony signed by an appropriate senior colleague. The witness testimony should cover at least two different occasions of when the learner has carried out their own work according to the organisation's principles and codes of practice.

For learning outcome4, suitable evidence of achievement would come from a combination of a personal study plan and a reflective diary. The plan should be a working document and include evidence of monitoring and revision to meet changing

circumstances, work requirements, discussions with tutors and mentors. The plan should follow a recognised format.

The reflective diary should be conducted over at least six months and should demonstrate reflection on areas of strengths and areas for improvement with regard to all of the following:

- the learner's ability/developing ability to carry out tasks
- confidence
- relationships with colleagues, peers, line manager, service users.

Additional information

For AC2.3, examples of relevant representative bodies include:

- trade unions, Health and Care Professionals Council, Association of Anatomical Pathology Technology (AAPT), The Royal Society for Public Health.

Learning outcomes and assessment criteria

To pass this unit, learners need to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Know key rights and responsibilities within own organisation	1.1	Describe the range of employer and employee statutory rights and responsibilities under employment law			
		1.2	Outline procedures within own organisation that protect own relationship with employer			
		1.3	Identify sources of information and advice available on employment rights and responsibilities			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Know career progression opportunities within own industry	2.1	Describe the role played by own occupation within organisation and industry			
		2.2	Outline types of career pathway available within own industry			
		2.3	Describe the relevance of representative bodies related to own occupation			
		2.4	Identify were to get information and advice on own occupation, training, and career			
		2.5	Discuss a work-related issue that affects own organisation and industry			
3	Be able to work within organisations codes of practice	3.1	Describe different types of codes of practice relevant to own work role			
		3.2	Explain the implications of not following appropriate practice and procedures in own work role			
		3.3	Carry out own work according to organisation's principles and code of conduct			
4	Be able to use study skills to continuously develop personal performance	4.1	Develop a personal study plan appropriate to their current position in own place of work			
		4.2	Develop a reflective diary that aids continual personal development			

Learner name: _____ Date: _____

Learner signature: _____ Date: _____

Assessor signature: _____ Date: _____

Internal verifier signature: _____ Date: _____
(*if sampled*)

Unit 3: Working in Partnership in Healthcare Science

Level: 2

Unit type: Mandatory

Credit value: 3

Guided learning hours: 26

Unit summary

This unit builds on *Unit 1: Healthcare Science Services* and requires learners to work in partnership with colleagues in healthcare science and with other related professionals. Exploration of key policies and practices in terms of communication, confidentiality, data protection, diversity and equal opportunities are included.

Learners will develop an understanding of the importance of using clear communication with individuals, colleagues, and other professionals, showing their ability to communicate technical and non-technical information to a range of people. Learners will maintain clear, correct individual records and other documentation. They will also explore the importance of presenting a positive image of themselves and the healthcare science service in the workplace.

Unit assessment requirements

Assessment tasks and activities must enable learners to produce valid, sufficient, authentic and appropriate evidence that relates directly to the learning outcomes and assessment criteria of the unit.

For learning outcome 1, suitable evidence of achievement would be:

- a report on the importance of effective communication within the healthcare science workplace, referring to the consequences of poor communication with all of the following: colleagues, a manager/supervisor, other healthcare professionals and a patient/donor. Learners must include examples of active listening skills.

For learning outcome 2, suitable evidence of achievement would be:

- a signed witness statement from a senior member of staff, describing the learner's competence in completing and maintaining relevant records
- questions and answers on the implications of not maintaining accurate records and breaching confidentiality related to a specific example.

For learning outcome 3, suitable evidence of achievement would be an information pack or presentation on behaviour in the workplace and how to work with others in a professional way. Alternatively, this could be evidenced through questions and answers during or after observation of related performance in the work setting.

For learning outcome 4, suitable evidence of achievement would be learners' evidence of their own technical work activities and their ability to communicate a range of relevant information in the workplace. Evidence for AC4.1 would be relevant work produced and AC4.2 would be signed witness statements, verifying that the learner has demonstrated competence in communicating technical and non-technical information to (a) a colleague, and (b) a team leader.

For learning outcome 5, suitable evidence of achievement would be a report on the presentation of a positive image of self, the organisation and service. Evidence should refer to the effects of positive and negative images on self, the organisation, and the healthcare science service, giving at least one example of each.

For learning outcome 6, suitable evidence of achievement would be a report or an article on how to ensure the dignity, privacy and confidentiality of service users in their own area of work. The report or article should also include an explanation of at least one example of a breach of confidentiality within a healthcare science setting. Alternatively, this could be evidenced through questions and answers during or after observation of related performance in the work setting.

Learning outcomes and assessment criteria

To pass this unit, learners need to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Understand the importance of communication in the healthcare science environment	1.1	Explain why effective communication is vital within healthcare settings			
		1.2	Explain what is meant by active listening skills			
		1.3	Explain the consequences of poor communication in healthcare science settings			
2	Be able to maintain documents and records in healthcare science settings	2.1	Complete and maintain records of patient and business information according to organisation protocols			
		2.2	Explain the implications of not maintaining records and documents correctly in a healthcare science setting			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Be able to develop working relationships with colleagues and other professionals	3.1	Describe relevant regulations that can affect working relationships			
		3.2	Describe behaviours that may adversely affect working relationships			
		3.3	Describe behaviours that may assist with resolving difficulties in working relationships			
		3.4	Describe problems which may affect working relationships with colleagues			
		3.5	Explain why it is important to request help from others in a polite and timely manner			
		3.6	Explain why it is important to offer assistance to others when help is needed			
		3.7	Take actions to develop positive working relationships with colleagues and other professionals within limits of own responsibility			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Be able to communicate technical and non-technical information to a range of people	4.1	Provide clear and concise information on own technical work activities			
		4.2	Use different techniques to communicate technical and non-technical information to a range of people			
5	Know how to present a positive image of: • self • organisation • service in healthcare settings	5.1	Describe how to present a positive image of self to work contacts			
		5.2	Describe how to present a positive image of own organisation and the healthcare science service			
		5.3	Outline the implications of presenting a negative image of self, own organisation and the healthcare science service			
6	Understand how to respect the dignity, privacy and confidentiality of service users	6.1	Explain how to show respect for the dignity and privacy of service users			
		6.2	Explain how to ensure confidentiality in own working context			
		6.3	Explain the implications of a breach of confidentiality of patient and business information			

Learner name: _____ Date: _____

Learner signature: _____ Date: _____

Assessor signature: _____ Date: _____

Internal verifier signature: _____ Date: _____
(*if sampled*)

Unit 4: Investigating, Treating and Manging Human Disease and Disorder

Level: 2

Unit type: Mandatory

Credit value: 2

Guided learning hours: 17

Unit summary

This unit gives introduces learners to the broad range, applications and limitations of techniques for investigating, diagnosing, treating and managing disease and disorders. Learners will consider how protocols for basic investigations can be applied in a work context.

Learners will explore how bioinformatics and other relevant applications can be used to record data. They will also look at the part personal protective equipment (PPE) plays in infection control in healthcare science services.

Unit assessment requirements

Assessment tasks and activities must enable learners to produce valid, sufficient, authentic and appropriate evidence that relates directly to the learning outcomes and assessment criteria of the unit.

For learning outcome 1, suitable evidence of achievement would be a reflective account or diary record on the purpose and limitations of protocols and Standard Operating Procedures (SOPs), referring to at least two protocols and at least two SOPs used within routine tasks in own work area. Learners must also present evidence of applying SOPs to routine tasks in their own work area. This could be incorporated within the reflective account or diary record mentioned above, however, this must be supplemented by two witness statements from a mentor or supervisor, stating how the learner has demonstrated competence in following procedures and protocols.

For learning outcome 2, suitable evidence of achievement would be a report or presentation on the range of services within healthcare science. The report/presentation should include at least one example from each service.

For learning outcome 3, suitable evidence of achievement would be an information pack for peers, describing the different types of information systems and their uses in

treating and managing diseases and disorders. Evidence must include at least one use for each system described. Alternatively, this could be evidenced through questions and answers, during or after observation of related performance in the work setting.

For learning outcome 4, suitable evidence of achievement would be a presentation or a set of information sheets, which should include reference to:

- the types of PPE used within their own work settings and the importance of using these
- the hand washing policies in their work setting, and at least four examples of specific precautions that should be observed in their own or related work areas
- examples of best practice for the disposal of clinical waste in healthcare science settings, making reference to their own organisation

Additional information

For AC3.1, information systems commonly used in healthcare science include:

- patient database, Laboratory Information Management Systems (LIMS), bioinformatics systems.

Learning outcomes and assessment criteria

To pass this unit, learners need to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Understand protocols and Standard Operating Procedures (SOPs) in the investigation and diagnosis of disease and disorders	1.1	Describe the purpose of protocols and Standard Operating Procedures (SOPs) in the investigation, diagnosis, treatment and management of disease and disorders			
		1.2	Describe the limitations of protocols and SOPs in the investigation and diagnosis process			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Know the scope of services within healthcare science used to investigate, diagnose, treat and manage human disease and disorders	2.1	Describe the range of services within healthcare science for investigating human disease and disorders			
		2.2	Describe the range of services within healthcare science for diagnosing human disease and disorders			
		2.3	Describe the range of services within healthcare science for treating and managing human disease and disorders			
3	Know information systems commonly used within healthcare science	3.1	Describe different types of information systems most commonly used within healthcare science			
		3.2	Describe how different information systems are used in the diagnosis, treatment and management of diseases and disorders			
4	Understand key principles and practice of infection prevention across health services	4.1	Describe the standard precautions for hand hygiene			
		4.2	Explain the importance of using personal protective equipment for infection control in healthcare settings			
		4.3	Explain how clinical waste is disposed of in healthcare science settings			

Learner name: _____ Date: _____

Learner signature: _____ Date: _____

Assessor signature: _____ Date: _____

Internal verifier signature: _____ Date: _____
(*if sampled*)

Unit 5: Working Safely in the Healthcare Science Environment

Level: 2

Unit type: Mandatory

Credit value: 3

Guided learning hours: 20

Unit summary

This unit introduces learners to the key requirements for health and safety practice in the healthcare science working environment, including the recognition and control of hazardous substances.

Key legislation, procedures and protocols will be explored. These will then be applied to relevant activities in the learner's workplace. Learners will show that they can work with equipment and materials according to manufacturers' instructions and be aware of lines of communication and responsibilities in relation to health and safety in their own workplace.

Unit assessment requirements

Assessment tasks and activities must enable learners to produce valid, sufficient, authentic and appropriate evidence that relates directly to the learning outcomes and assessment criteria of the unit.

For learning outcome 1, suitable evidence of achievement would be a health and safety guide for new recruits to their own work area. The document should outline details of at least three health and safety regulations and describe at least three responsibilities of employers. It should also contain specific reference to the relevance of health and safety regulations to the learner's own work role.

For learning outcome 2, suitable evidence of achievement would be a presentation that demonstrates learner understanding of hazardous substances in the workplace. Learners need to refer to at least three examples of hazardous substances and give examples of symbols used for hazardous substances used in their work environment. The presentation should also outline ways in which hazardous substances can cause harm and the principles of controlling risks.

For learning outcome 3, suitable evidence of achievement would be an information pack containing sheets, handouts, leaflets or posters that give the learner an understanding of health and safety procedures related to scientific or technical

activities in the learner's own area of work. The pack should refer to the following: workplace hazards; manual handling, unsafe practice, spillages, workplace emergency and workplace evacuation. Alternatively, this could be evidenced through questions and answers during or after observation of related performance in the work setting.

For learning outcome 4, suitable evidence of achievement would be a report on the implications of not following protocols when conducting scientific or technical activities.

Learners should also present evidence in the form of a reflective journal and witness statements from supervisors, of following health and safety procedures in carrying out their own work, including wearing appropriate personal protective equipment (PPE).

For learning outcome 5, suitable evidence of achievement would be a report that demonstrates understanding of the required aspects of the relevant lines of communication and responsibilities. Evidence must demonstrate links with the learner's own department and with the wider organisation.

Additional information

For AC2.1, forms of hazardous substances in the healthcare science environment include:

- flammables (liquid or solid), corrosive material, equipment and tools, toxic/harmful material, biological material, radioactive material, water reactive material, explosive materials.

Learning outcomes and assessment criteria

To pass this unit, learners need to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Know the duties of employers and employees under health and safety legislation	1.1	Outline the purposes of the Health and Safety at Work Act 1974 as they apply to the healthcare science work environment			
		1.2	Describe the legal responsibilities of employers to ensure health, safety and welfare in the workplace			
		1.3	Describe health and safety regulations which apply to own work environment			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Know how to recognise hazardous substances that may cause harm in the workplace	2.1	Describe the different forms of hazardous substances used in the healthcare science environment			
		2.2	Identify symbols used for hazardous substances in own workplace			
		2.3	Describe the ways in which hazardous substances can cause harm			
		2.4	Describe the principles of controlling the risks presented by hazardous substances			
3	Understand health and safety procedures for scientific or technical activities	3.1	Explain health and safety operating procedures relevant to given tasks in own job role			
		3.2	Explain the appropriate action to be taken in the event of identified workplace hazards and risks			
4	Be able to prepare, maintain, and use equipment and materials in accordance with manufacturers' instructions	4.1	Describe the implications of not following protocols when conducting scientific or technical activities			
		4.2	Use safe practices in the workplace when preparing, maintaining, and using equipment and materials			
		4.3	Wear appropriate protective clothing in the workplace			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
5	Know the lines of communication and responsibilities in relation to health and safety in own department and links with wider organisation	5.1	Identify health and safety representatives in own workplace			
		5.2	Describe how to operate identified fire alarm call points			
		5.3	Describe the correct use of emergency equipment in own workplace			
		5.4	Identify lines of communication and responsibilities in own organisation in relation to health and safety matters			
		5.5	State limits of own authority in relation to health and safety matters			

Learner name: _____ Date: _____

Learner signature: _____ Date: _____

Assessor signature: _____ Date: _____

Internal verifier signature: _____ Date: _____
(*if sampled*)

10 Appeals

Centres must have a policy for dealing with appeals from learners. Appeals may relate to assessment decisions being incorrect or assessment not being conducted fairly. The first step in such a policy is a consideration of the evidence by a Lead Internal Verifier or other member of the programme team. The assessment plan should allow time for potential appeals after learners have been given assessment decisions.

Centres must document all learners' appeals and their resolutions. Further information on the appeals process can be found in the document *Internal assessment in vocational qualifications: Reviews and appeals policy*, available on our website.

11 Malpractice

Dealing with malpractice in assessment

Malpractice means acts that undermine the integrity and validity of assessment, the certification of qualifications and/or may damage the authority of those responsible for delivering the assessment and certification.

Pearson does not tolerate actual or attempted actions of malpractice by learners, centre staff or centres in connection with Pearson qualifications. Pearson may impose penalties and/or sanctions on learners, centre staff or centres where malpractice or attempted malpractice has been proven.

Malpractice may occur or be suspected in relation to any unit or type of assessment within a qualification. For further details on malpractice and advice on preventing malpractice by learners, please see Pearson's *Centre guidance: Dealing with malpractice*, available on our website.

The procedures we ask you to adopt vary between units that are internally assessed and those that are externally assessed.

Centres are required to take steps to prevent malpractice and to investigate instances of suspected malpractice. Learners must be given information that explains what malpractice is for internal assessment and how suspected incidents will be dealt with by the centre. The *Centre guidance: Dealing with malpractice* document gives full information on the actions we expect you to take.

Pearson may conduct investigations if we believe a centre is failing to conduct internal assessment according to our policies. The above document gives further information and examples, and details the penalties and sanctions that may be imposed.

In the interests of learners and centre staff, centres need to respond effectively and openly to all requests relating to an investigation into an incident of suspected malpractice.

Learner malpractice

- The head of centre is required to report incidents of suspected learner malpractice that occur during Pearson qualifications. We ask centres to complete Joint Council for Qualifications (JCQ) *Form M1* (www.jcq.org.uk/exams-office/malpractice) and email it with any accompanying documents (signed statements from the learner, invigilator, copies of evidence, etc.) to the Investigations Processing team at candidatemalpractice@pearson.com. The responsibility for determining appropriate sanctions or penalties to be imposed on learners lies with Pearson.

Learners must be informed at the earliest opportunity of the specific allegation and the centre's malpractice policy, including the right of appeal. Learners found guilty of malpractice may be disqualified from the qualification for which they have been entered with Pearson.

Failure to report malpractice constitutes staff or centre malpractice.

Teacher/centre malpractice

The head of centre is required to inform Pearson's Investigations team of any incident of suspected malpractice (which includes maladministration) by centre staff, before any investigation is undertaken. The head of centre is requested to inform the Investigations team by submitting a *JCQ M2* form (www.jcq.org.uk/exams-office/malpractice) with supporting documentation to pqsmalpractice@pearson.com. Where Pearson receives allegations of malpractice from other sources (for example Pearson staff, anonymous informants), the Investigations team will conduct the investigation directly or may ask the head of centre to assist.

Pearson reserves the right in cases of suspected malpractice to withhold the issuing of results/certificates while an investigation is in progress. Depending on the outcome of the investigation, results and/or certificates may not be released or they may be withheld.

We reserve the right to withhold certification when undertaking investigations, audits and quality assurance processes. You will be notified within a reasonable period of time if this occurs.

Sanctions and appeals

Where malpractice is proven, we may impose sanctions or penalties, such as:

- mark reduction for affected external assessments
- disqualification from the qualification
- debarment from registration for Pearson qualifications for a period of time.

If we are concerned about your centre's quality procedures we may impose sanctions such as:

- working with centres to create an improvement action plan
- requiring staff members to receive further training
- temporarily withholding certification of learners
- placing temporary blocks on registration of learners
- debarring staff members or the centre from delivering Pearson qualifications
- suspending or withdrawing centre approval status.

The centre will be notified if any of these apply.

Pearson has established procedures for centres that are considering appeals against penalties and sanctions arising from malpractice. Appeals against a decision made by Pearson will normally be accepted only from the head of centre (on behalf of learners and/or members or staff) and from individual members (in respect of a decision taken against them personally). Further information on appeals can be found in the JCQ Appeals booklet: *A guide to the awarding bodies' appeals process.*

12 Further information and publications

- Edexcel, BTEC and Pearson Work Based Learning contact details: qualifications.pearson.com/en/support/contact-us.html.
- Books, software and online resources for UK schools and colleges: www.pearsonschoolsandfecolleges.co.uk.
- Our publications catalogue lists all the material available to support our qualifications. To access the catalogue and order publications, please visit our website.

Further documents that support the information in this specification:

- *Access arrangements and reasonable adjustments* (JCQ)
- *A guide to the special consideration process* (JCQ)
- *Collaborative and consortium arrangements for the delivery of vocational qualifications policy* (Pearson)
- *UK information manual* (updated annually and available in hard copy) or *Entries and information manual* (available online) (Pearson)
- *Distance learning and assessment policy* (Pearson)

Publisher information

Any publisher can seek endorsement for their resources and, if they are successful, we will list their resources on our website.

13 Glossary

Section A – General terminology used in specification

Level	Units and qualifications have a level assigned to them. The level assigned is informed by the level descriptors defined by Ofqual, the qualifications regulator.
Credit value	All units in this qualification have a credit value. The minimum credit value is 1 and credits can be awarded in whole numbers only.
Guided learning hours (GLH)	This indicates the number of hours of activities that directly or immediately involve tutors and assessors in teaching, supervising, and invigilating learners, for example lectures, tutorials, online instruction and supervised study. Units may vary in size.
Total qualification time (TQT)	This indicates the total number of hours that a typical learner will take to complete the qualification. This is in terms of both guided learning hours but also unguided learning, for example private study, time spent in the workplace to master skills.
Learning outcomes	The learning outcomes of a unit set out what a learner knows, understands or is able to do as the result of a process of learning.
Assessment criteria	The assessment criteria specify the standard the learner is required to meet to achieve a learning outcome.
Competence	The minimum knowledge, skills and behaviours required to perform a job role effectively.
Valid assessment	The assessment assesses the skills or knowledge/understanding in the most sensible, direct way to measure what it is intended to measure.
Reliable assessment	The assessment is consistent and the agreed approach delivers the correct results on different days for the same learners and different cohorts of learners.
Workplace simulation	Realistic tasks carried out in the workplace that are additional to the normal work duties for the day to produce evidence for criteria that are very challenging to meet in the natural course of work.

Section B – Terms used in knowledge and understanding criteria

Compare	Identify the main factors relating to two or more items/situations, explaining the similarities and differences or advantages and disadvantages, and in some cases say which is best and why.
Describe	Give a clear account in their own words, including all the relevant information (e.g. qualities, characteristics or events, etc.). Description shows recall and in some cases application.
Evaluate	Bring together all information and review it to form a supported conclusion, drawing on evidence, including strengths, weaknesses, alternative actions, relevant data or information.
Explain	Provide details and give reasons and/or evidence to support an opinion, view or argument. OR Provide details and give relevant examples to clarify and extend a point. This would usually be in the context of learners showing their understanding of a technical concept or principle.
Identify	Shows the main features or purpose of something. Can recognise it and/or name characteristics or facts that relate to it.
Outline	Provide a summary or overview or brief description.
State	Express information in clear and precise terms.

Annexe A

Mapping of the Healthcare Science Assistant Apprenticeship standard to the qualification content

The grid below maps the knowledge, skills and behaviours (KSBs) of the Healthcare Science Assistant Apprenticeship Standard to the content covered ìnthe Pearson BTEC Level 2 Diploma in Healthcare Science

KEY

The learning outcome in mandatory units or the optional unit number identifies where there is coverage of the standard in the qualification.

a blank space indicates no coverage of the knowledge, skills or behaviours in the qualification.

BTEC Specialist units **KSBs from the Apprenticeship Standard**		**Unit 1**	**Unit 2**	**Unit 3**	**Unit 4**	**Unit 5**	**Optional Units**
Professional Practice Knowledge: **Person-centred care**	the requirements of the NHS Constitution/*GSP* for 'person centred care and support'						Unit 30
	equality and diversity legislation, policies and local ways of working			LO3			Unit 111
	the importance of probity and the need to be honest in your professional practice			LO3			
	why it is important to get people actively involved in making choices about their care						Unit 34

BTEC Specialist units KSBs from the Apprenticeship Standard		Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Optional Units
	how to involve patients and the public in HCS						Unit 30
	how to promote mental health and well being						
Professional Practice skills:	never discriminate against patients, carers or colleagues						Unit 111
Person-centred care	maintain the highest standards of person-centred care, treating every person with compassion, dignity and respect	LO3		LO6			Unit 34
	promote mental health and well being						
Professional Practice Knowledge:	how to explain technical terms in language a patient or carer or colleague can understand			LO4			
Communication and Working with Others	how to address barriers to communication and the importance of working well within the multi-professional team (MPT) and the contribution of HCS to it			LO1			Unit 16
	where to go for help and support about anything related to your work			LO3			Unit 16

BTEC Specialist units KSBs from the Apprenticeship Standard		Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Optional Units
Professional Practice Skills: **Communication and Working with Others**	communicate basic information effectively verbally and in writing to patients, carers and colleagues			LO1			
	work effectively as part of the HCS team and the MPT			LO3			
Personal and Professional Development knowledge	reflective behaviours and the benefits of self-reflection in helping maintain and support the quality of patient care						
	the role of appraisal and performance review						
	how to prepare for and develop an action plan as part of performance review		LO4				
Personal and Professional Development skills	reflect on your practice; and keep your knowledge and skills up to date		LO4				Unit 10 Unit 87 Unit 113
	work within the limits of your personal competence			LO3			Unit 32
	respond constructively to the outcome of appraisal, feedback, and performance review						Unit 113

BTEC Specialist units KSBs from the Apprenticeship Standard		Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Optional Units
Health, Safety and Security knowledge	legislation/policies relating to health and safety at work and your responsibilities					LO1	
	the meaning and implications of 'risk' and 'risk assessment'						
	what to do in situations that could cause harm to yourself/others, e.g., critical incidents					LO3	
	the principles of safe lifting and handling of people, equipment etc.						Unit 60
	how to handle hazardous materials and substances					LO2	
Health, Safety and Security skills	work safely in the HCS workplace following safety, and risk management guidelines, taking appropriate action in response to incidents or emergencies						
	move/position individuals, equipment etc. safely						Unit 60
	apply a range of techniques for infection prevention and control						Unit 55
Quality knowledge	the role of quality management/improvement and the regulatory environment to maintain and improve HCS services and the quality standards relevant to your role	LO4					

BTEC Specialist units KSBs from the Apprenticeship Standard		Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Optional Units
	the audit cycle and how audit contributes to the maintenance/improvement of services	LO4					
Quality Skills	follow quality procedures to meet the requirements of quality standards relevant to your HCS practice	LO4					
	participate in technical audit as appropriate	LO4					
Technical Scientific Services knowledge	the scope/range of services within HCS used to investigate/diagnose/treat disease	LO1					
	the evidence base that underpins your technical practice	LO6					
	current UK Resuscitation Council guidelines as well as all mandatory training						
	how to establish/maintain a safe and effective practice environment based on SOPs	LO5					
Technical Scientific Services Skills	provide general non-technical/technical advice, information, guidance to users of HCS services						
	follow specified HCS protocols and standard operating procedures (SOPs)	LO5					
Clinical Care knowledge	the meaning and importance of 'duty of care' and safeguarding						Unit 34

BTEC Specialist units KSBs from the Apprenticeship Standard		Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Optional Units
	the support available in difficult situations or when a complaint is made						Unit 34
	the rights of patients with regard to giving informed consent for treatment when required						All clinical units
	confidentiality of consultation/medical records and the limits of the concept of confidentiality, e.g., where self-harm or harm to others may be involved			LO 6			Unit 42
	key factors influencing dignity/rights/privacy/confidentiality of patients/colleagues, e.g., age/gender/beliefs			LO6			Unit 42
Clinical Care Skills	take responsibility for the care you provide, including safeguarding, if involved in patient care						
	obtain verbal consent in line with protocols when you are directly involved in the delivery of a procedure, including explaining the nature and purpose of the procedure						All clinical units
	protect patient/carers confidentiality when required			LO6			

BTEC Specialist units KSBs from the Apprenticeship Standard		Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Optional Units
Audit/Service Improvement Knowledge	the importance of delivering high quality service outcomes and continuous improvements to benefit patients, staff, and health services, especially through audit	LO 4					Unit 38 Unit 104
Audit/Service Improvement Skills	offer suggestions for improving services, providing reasons for these	LO 4					
Research and Innovation knowledge	the regulatory framework within which research and innovation is conducted, including research ethics and the implications for your role						
	how you can contribute to research and innovation	LO 4					
Research and Innovation Skills	contribute to research and innovation within the boundaries of your clinical and scientific practice as required	LO 4					
Leadership knowledge	the healthcare NHS Leadership Model and its relevance to you						
	why it is important to be aware of your strengths, limitations, and behaviours and how that affects your colleagues and any team within which you work.			LO3			

BTEC Specialist units KSBs from the Apprenticeship Standard		Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Optional Units
Leadership Skills	help create the conditions that assist your team in providing a supportive environment for colleagues			LO3			

Annexe B: Assessment strategy

Assessment Principles and Strategy for Level 2 Diploma in Healthcare Science and Level 4 Diploma in Healthcare Science as agreed with the National School of Healthcare Science

1 Introduction

1.1 Level 2 Occupational profile

The **Healthcare Science Assistant** (HCSA) support workforce contributes to safe patient care across all care pathways from conception to end of life in job roles within hospitals, general practice and other settings in the healthcare sector and across all areas of healthcare science. HCSAs perform a range of low risk, routine technical and scientific procedures usually within one broad area of HCS, following specific protocols and in accordance with health, safety, governance and ethical requirements. HCSAs work using standard operating procedures, initially under direct supervision but increasingly with experience, under indirect supervision.

1.2 Level 2 Responsibilities and duties of the role

All HCSAs work effectively within a multi-professional team (MPT) within the limits of their competence but must seek help and support whenever this is required. HCSAs must be aware of the requirements of *Good Scientific Practice* (GSP), which articulates the standards for the HCS profession and upon which the apprenticeship standard is based. Using these professional standards, the HCSA must adhere to employers' policies and protocols to ensure safe and consistent practice within the working environments of HCS. Although not exhaustive, activities undertaken by the HCSA may include: basic life support; preparation of the environment for HCS procedures; production of reliable data, keeping accurate records; stock control of equipment and consumables; inputting and retrieving patient/test specific technical data within required governance processes; performing designated HCS role-specific skills following specified protocols.

1.3 Level 4 Occupational profile

The **Healthcare Science (HCS) Associate** workforce supports the work of HCS Practitioners and Clinical Scientists in performing high quality, safe diagnostic, therapeutic and monitoring technical and scientific procedures from conception to end of life in job roles within hospitals, general practice and other settings in the healthcare sector and across all areas of HCS. They perform a wide range of routine technical and scientific procedures, with minimal supervision, within one of the Divisions in HCS., following specific protocols and in accordance with health, safety, governance, and ethical

requirements. The clinical scientific environment determines the context of the HCS Associate work/role.

1.4 Level 4 Responsibilities and duties of the role

Associates work within a multi-disciplinary team (MDT) within the limits of their competence and must seek help and support whenever this is required. They must be aware of the requirements of *Good Scientific Practice (GSP),* which articulates the standards for the HCS profession and upon which this apprenticeship standard is based.

Using these professional standards, the HCS Associate must adhere to employers' policies/protocols to ensure safe, person-centred/consistent practice in HCS working environments, including paying close attention to detail, working effectively within a team and acting as a role model for more junior members of staff.

While not exhaustive, activities undertaken by HCS Associates within the specific area/environment of HCS within which they work will include: supporting the development and maintenance of standards/protocols as required; contributing to the safe, effective and efficient functioning of diagnostic/therapeutic services; supporting more junior staff in learning required skills and behaviours of those who work in HCS; quality controlling the technical processing of biological samples and physiological and other diagnostic tests; performing routine investigations and telephoning authorised results according to protocols, e.g. in the Life Sciences, full blood counts/microscopy, antibiotic sensitivities/assay, endocrine assessments, immunology assays; in the Physiological Sciences: fitting/removing ambulatory blood pressure monitors and 24hr ECGs; ophthalmic assessments of the structure and function of the eye; pure tonal audiometry; in the Physical Sciences: nuclear medicine imaging, post processing of images; decontaminating, repairing and maintaining medical devices, e.g. in Clinical Engineering medical device maintenance/calibration (including electro-medical); managing technical data and writing technical reports, e.g. in Clinical Bioinformatics which uses specifically designed methods/software for managing biological data.

1.5 This document sets out the assessment principles and approaches to the assessment of the regulated Level 2 Diploma in Healthcare Science and Level 4 Diploma in Healthcare Science qualifications.

1.6 The information is intended to support the quality assurance processes of Awarding Organisations that offer qualifications in the sector.

1.7 Throughout this document the term unit is used for simplicity, but this can mean module or any other similar term.

2 Assessment Principles

2.1 Learners must be registered with the Awarding Organisation before formal assessment commences

2.2 Assessment systems should, where possible, be integrated with employers' training and career development programmes.

2.3 Evidence of competence should come from workplace activity. Observation should be the principle method of assessment where practicable. Any knowledge evidence integral to competence-based learning should ideally be generated in the work environment but can also be generated through other assessment methods such as professional discussion and assignments.

3 Assessment Strategy

3.1 Simulation

3.1.1 The Healthcare Science Sector holds the view that simulation is a practical and effective tool for establishing skill and understanding where naturally occurring evidence of competence is rarely available

a. The environment in which simulation takes place must be designed to match the characteristics of the working environment

b. Simulation must not be used as the sole form of evidence for any unit within this qualification

3.2 Assessors and Verifiers

3.2.1 The roles and competence of assessors, expert witnesses and verifiers are central to the way assessment is managed.

3.2.2 Wherever possible, assessment of competence assessment criteria should be conducted by the learner's supervisor and/or manager in a workplace environment. In no circumstances may a competence-based qualification for the Healthcare Science sector be delivered without the involvement of the learner's line manager to confirm the learner's competence.

3.2.3 Those acting as assessors, internal verifiers and external verifiers will require strong interpersonal and communication skills in addition to their assessment and technical expertise and will require to undertake appropriate continuing professional development in order to maintain their occupational competence.

3.3 Assessors

3.3.1 Assessors must:

- have been working in the Healthcare Science sector for a minimum of 3 years and hold a position of responsibility
- hold a relevant professional or occupational healthcare science qualification
- hold or be working towards an appropriate assessor qualification within 12 months of starting to assess the Level 2 and Level 4 Diplomas in Healthcare Science. Assessors holding legacy qualifications must be able to demonstrate that they are assessing to current standards.
- if not a qualified assessor, they must have relevant and recent experience in assessing work-based knowledge and competence and also have an understanding of current units being assessed
- the person responsible for signing off the full qualification must be a qualified assessor
- complete CPD activities to ensure knowledge and occupational competence are kept up to date.

3.4 Internal Verifiers

3.4.1 Internal Verifiers must:

- have been working in the Healthcare Science sector and hold a position of responsibility for a minimum of 3 years
- have experience of assessing competence-based qualifications or non-accredited programmes
- have EITHER any qualification in assessment of workplace performance OR a work role that involves evaluating the everyday practice of staff within their area of expertise
- hold or be working towards an appropriate verifier or quality assurance qualification within 12 months of starting to internally verify the Level 2 and level 4 Diplomas in Healthcare Science. Those holding legacy qualifications must be able to demonstrate that they are working to current standards.
- complete CPD activities to ensure knowledge and occupational competence are kept up to date.

3.5 Co-ordinating and Lead Assessors

In order that the requirements for occupational competence of assessors and expert witnesses can be met while allowing flexibility of delivery, learners may have more than one assessor or expert witness involved in the assessment process.

Where more than one assessor is involved in the qualification there must be a named assessor who is responsible for the overall co-ordination of the assessment for each learner. This person will be responsible for integrating, planning, and directing the assessment for the whole qualification. Where more than one assessor is involved in a unit, there must be a named assessor who is responsible for the overall co-ordination of the assessment for that unit. The lead assessor must ensure that the best use is made of all available evidence and will make the final judgement of competence in each unit where other assessors have been involved. It is expected that all assessors will work closely with internal quality assurers to ensure standardised practice and judgements within the assessment process.

3.6 External Verifiers

3.6.1 External Verifiers ideally must:

- have a minimum of 3 years' experience of working in the Healthcare Science sector
- have an appropriate qualification: healthcare science associate or equivalent to assess level 2 and healthcare science practitioner or equivalent to assess level 4
- have EITHER any qualification in assessment of workplace performance OR a work role that involves evaluating the everyday practice of staff within their area of expertise
- have working knowledge of healthcare science setting, the regulation, legislation and codes of practice for the service (where applicable) at the time any assessment is taking place
- have credible experience which is clearly demonstrable through continuing learning and development

3.7 Expert Witness

An expert witness must:

- have a working knowledge of the units for which they are providing expert testimony
- be occupationally competent in the area for which they are providing expert testimony

- have EITHER any qualification in assessment of workplace performance OR have a work role that involves evaluating the everyday practice of staff within their area of expertise.
- This document sets out the assessment principles and approaches to the assessment of the regulated Level 2 Diploma in Healthcare Science and Level 4 Diploma in Healthcare Science qualifications.

3.8 Witness testimony

- is an account of practice that has been witnessed or experience by someone other than the assessor and learner
- can have particular value in confirming reliability and authenticity in avoiding tokenistic assessment and in the assessment of practice in sensitive situations
- provides supporting information for assessment decisions and should not be used as the only evidence of competence.

4 Definitions

4.1 Occupationally competent

- each assessor must be capable of carrying out the full requirements of the area they are assessing
- occupational competence may be at unit level for specialist areas: this could mean that different assessors may be needed across a whole qualification while the final assessment decision for a qualification remains with the main assessor
- occupationally competent means also being occupationally knowledgeable
- occupational competence should be maintained annually through clearly demonstrable continued learning and professional development.

4.2 Occupationally knowledgeable

- each assessor should possess relevant knowledge and understanding
- occupationally knowledgeable assessors may assess at unit level for specialist areas within a qualification, while the final assessment decision for a qualification remains with the main assessor
- occupational knowledge should be maintained annually through clearly demonstrable continued learning and professional development.

4.3 Qualified to make assessment decisions

- each assessor must hold, or be working towards holding, a qualification suitable to support the making of appropriate and consistent assessment decisions
- the Awarding Organisation will determine what will qualify those making assessment decisions according to the unit of competence under assessment

4.4 Qualified to make quality assurance decisions

- Awarding Organisations will determine what will qualify those undertaking internal and external quality assurance to make decisions about that quality assurance.

5 Codes and Standards of Conduct

Academy for Healthcare Science – Good Scientific Practice (2021)

https://www.ahcs.ac.uk/standards/

September 2021

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