Programme Specification

Healthcare Science (Radiotherapy Physics) {Apprenticeship-UWE} [Frenchay]

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Section 1: Key Programme Details

Part A: Programme Information

Programme title: Healthcare Science (Radiotherapy Physics) {Apprenticeship-UWE} [Frenchay]

Highest award: BSc (Hons) Healthcare Science (Radiotherapy Physics)

Interim award: BSc Healthcare Studies (Radiotherapy Physics)

Interim award: DipHE Healthcare Science (Radiotherapy Physics)

Interim award: CertHE Healthcare Science (Radiotherapy Physics)

Awarding institution: UWE Bristol

Teaching institutions: UWE Bristol

Study abroad: No

Year abroad: No

Sandwich year: No

Credit recognition: No

School responsible for the programme: CHSS School of Applied Sciences, College of Health, Science & Society

Professional, statutory or regulatory bodies:

National School of Healthcare Science (NSHCS)

Apprenticeship: ST0413 [Version 1.1 from September 2025]

Modes of delivery: Full-time

Entry requirements:

For implementation from: 01 September 2025

Programme code: C99R43

Section 2: Programme Overview, Aims and Learning Outcomes

Part A: Programme Overview, Aims and Learning Outcomes

Overview: The BSc Hons. Healthcare Science (Radiotherapy Physics) Degree Apprenticeship provides a comprehensive, practice-led learning experience that integrates theoretical knowledge with hands-on, real-world application. From the outset, you will gain practical experience in healthcare science settings, where work-based competencies ensure that you can apply the knowledge you gain through your academic learning directly to your professional role.

At Level 4, the programme establishes a broad foundation in Medical Physics Technology, covering essential concepts and taught by clinical experts. These foundational subjects are complemented by shared modules across Healthcare Science that foster interdisciplinary learning and prepare you for the varied challenges of healthcare science practice. Assessment is designed to support you in connecting theory and practice.

As you progress into Level 5, the focus shifts towards more advanced topics and you will build on the knowledge, skills and behaviours from Level 4. The progression of your knowledge, skills and behaviour continues to be assessed through work-based competences and academic assessment.

Level 6 is where your specialisation in Radiotherapy Physics truly takes shape, with highly focused modules that deepen your expertise as you take on more advanced, independent responsibilities in your workplace. You will complete a workplace-based project that aligns with your learning, providing an opportunity to contribute to advancements in practice and reflect on the integration of theory and practice. Throughout the programme, you will benefit from ongoing support, ensuring that you can integrate your academic learning with your work-based experiences.

The design of the programme ensures that you will have the opportunity to develop as an independent and reflective practitioner, acquiring the skills needed to critically

evaluate evidence, solve complex clinical problems, and communicate effectively with both specialist and non-specialist audiences. This approach prepares you for your career in healthcare science, equipped with the necessary knowledge, practical skills, and professional competence.

The inclusive design of the programme also allows for a variety of learning styles and personal progress, with regular review meetings between you, your workplace assessor, and a UWE representative, providing ongoing support and guidance throughout your apprenticeship.

Features of the programme: Key Features of the Healthcare Science (Radiotherapy Physics) Degree Apprenticeship:
-A comprehensive core curriculum at Level 4, providing foundational knowledge in medical physics technology with opportunities to learn from clinical experts and peers regarding how this knowledge applies directly to Radiotherapy Physics.
- A progressive structure across the years, allowing apprentices to specialise in Radiotherapy Physics building appropriate knowledge, skills and behaviours relevant to the specialism.
- A flexible learning approach enabling students to focus on their chosen specialism, with opportunities to engage in workplace-based projects and apply their learning in real-world healthcare science settings.
-Strong emphasis on work-based competencies, allowing apprentices to gain appropriate hands-on experience in clinical environments, with assessments that directly mirror workplace tasks to enhance employability.
-Dedicated research skills modules at Levels 4 and 5 to build learners abilities as independent practitioners, culminating in a final-year project that allows for the application of learning to improve clinical practice.
-Regular review and support meetings to ensure progress and tailored guidance, enabling students to reach their full potential and meet apprenticeship standards.

Educational Aims: The degree apprenticeship programme enables learners to develop the knowledge, skills and behaviours required of a healthcare scientist whilst also completing the extensive work-based training that forms an integral and significant proportion of the three year course, and to demonstrate specified

standards of practice. The unique delivery of the course allows healthcare science staff to complete the qualification whilst remaining in-post through a combination of innovative online materials and focused block-release at UWE.

The programme ensures that the learner will develop:

-A comprehensive understanding of healthcare science, with a focus on Radiotherapy Physics, including the biological, clinical, and technological principles that underpin the field and their application in practice.
-The ability to critically evaluate and interpret relevant scientific literature, assessing the quality, context, and applicability of information to make informed decisions in clinical practice.
-The capacity to communicate effectively, presenting complex healthcare concepts clearly and confidently to both specialist and non-specialist audiences, using appropriate professional terminology.
-Critical thinking and analytical skills, recognising the importance of evidence-based practice, where clinical decisions are informed by robust data and subject to evaluation and reflection.
-Practical research and problem-solving skills, enabling the learner to apply a range of methodologies to investigate healthcare issues, record findings, and contribute to advancements in their field.
-Independence in learning, with the ability to set objectives, engage in self-directed tasks, and solve complex challenges in a clinical setting, contributing to the advancement of patient care.

Programme Learning Outcomes:

On successful completion of this programme graduates will achieve the following learning outcomes.

Programme Learning Outcomes

PO1. Practice according to the legal, ethical and professional standards and codes of conduct for Healthcare Science Practitioners.

PO2. Provide, plan, monitor, assess and troubleshoot the technical scientific services delivered by yourself and the team.

PO3. Provide clinical care using scientific and professional knowledge and skills to provide or support others to do the same.

PO4. Communicate with others using techniques that facilitate understanding.

PO5. Lead and support colleagues to work in partnership with the wider healthcare team.

PO6. Maintain a healthy, safe and secure workplace, supporting others to do the same.

PO7. Monitor the quality of service, via audit, governance and incident investigation processes and leading service improvement programmes.

PO8. Contribute to the development of services through innovation or research within scope of own role.

PO9. Maintain and develop own competence and that of others using ongoing reflection and continual professional development.

PO10. Manage complex and sensitive information adhering to information governance requirements.

Assessment strategy: The assessment strategy for this programme is designed to support and reinforce your learning at every stage of the programme. A range of assessment methods are employed to cater to different learning styles and to ensure that you are able to apply theoretical knowledge to real-world clinical practice.

The assessments are carefully designed to reflect the skills and competencies required for a successful career in healthcare science. These include portfolio-based assessments, project reports, presentations and quizzes, all of which help you track and demonstrate your development over time. Work-based competencies are a key feature, enabling you to directly apply the knowledge gained to your clinical practice, with assessments that mirror tasks you will encounter in the workplace.

Throughout the programme, you will engage in assessments that develop your research skills and ability to critically evaluate evidence. For example, assignments will include tasks such as research reviews and case studies, which allow you to

develop your analytical and problem-solving abilities, while contributing to the evidence-based approach central to healthcare science. Practical assessments are integrated throughout the programme via your work-based learning, ensuring that you develop both technical and professional skills.

In addition to traditional written assessments, you will be encouraged to communicate your findings through a variety of formats, including written reports, presentations, and clinical documentation. These assessments are designed to help you develop your ability to present complex information clearly and confidently to both specialist and non-specialist audiences. The workplace project in your final year, will allow you to apply the skills learned throughout your studies in a real-world context. This project, whether focused on data collection, experimental research, or service improvement, will demonstrate your ability to plan, execute, and communicate research as an independent healthcare science practitioner.

Overall, the assessment strategy is designed to ensure that you are not only able to recall and apply knowledge but also develop the critical thinking, communication, and research skills necessary for success in healthcare science.

Student support: The Healthcare Science Degree Apprenticeship programme provides robust support to ensure your success, with a key feature being the tripartite progress reviews. These meetings, held regularly between you, a UWE representative, and your workplace assessor, monitor your academic and professional progress. They provide a platform to discuss achievements, challenges, and set goals, ensuring continuous development and alignment between all parties.

In addition to the tripartite reviews, you will have access to academic advisors, mentors, and clinical supervisors, who offer ongoing guidance and support throughout your studies. Regular communication with your workplace mentor ensures you stay on track, with any necessary adjustments made to support your learning and work-based competencies.

The programme also offers a range of additional support services, including

wellbeing resources, study skills workshops, and career advice, ensuring you have the tools and resources needed for success.

Part B: Programme Structure

Year 1

The student must take 120 credits from the modules in Year 1.

Year 1 Compulsory Modules
The student must take 120 credits from the modules in Compulsory Modules.

Module Code	Module Title	Credit
USSJRR-45-1	Clinical Applications of Medical Physics 2024-25	45
USSJQW-15-1	Foundations of Mathematics and Statistics 2024-25	15
USSJQX-15-1	Introduction to Professional Practice in Healthcare Science 2024-25	15
USSJRC-45-1	Introduction to Radiation Physics and Safety 2024-25	45

Year 2
The student must take 120 credits from the modules in Year 2.

Year 2 Compulsory Modules
The student must take 120 credits from the modules in Compulsory Modules.

Module Code	Module Title	Credit
USSYQL-60-2	Applied Medical Physics 2025-26	60
USSYQF-15-2	Professional Practice in Action 2025-26	15
USSYQE-45-2	Research Methods 2025-26	45

Year 3
The student must take 120 credits from the modules in Year 3.

Year 3 Compulsory Modules
The student must take 120 credits from the modules in Compulsory Modules.

Module Code	Module Title	Credit
USSYQM-45-3	Project 2026-27	45
USSYQX-60-3	Radiotherapy Physics 2026-27	60
USSYQN-15-3	End Point Assessment 2026-27	15

Part C: Higher Education Achievement Record (HEAR) Synopsis

The Medical Physics Technology programme is a professionally accredited course that integrates theoretical and practical approaches to understanding medical physics in the context of the human body in health and disease. It provides a foundation in core physics and bioscience subjects that builds to a choice of science specialisms at more advanced levels, e.g. radiation, radiotherapy physics & nuclear medicine. These subjects are supported by practical investigations to develop student proficiencies in data analysis, diagnosis and problem solving. Central to the programme is the medical physics professional work-based training portfolio which is an essential component of the student's career progression.

Part D: External Reference Points and Benchmarks

The course adheres to the professional body requirements for the:

National School of Healthcare Science (Practitioner Training Programme in Medical Physics)

Institute of Physics and Engineering in Medicine (Practitioner Training Programme in Medical Physics)

The course is aligned to the requirements of the Education and Skills Funding Agency Level 6 Healthcare Science Practitioner Degree Apprenticeship Standard.

Part E: Regulations

Approved variants to University Academic Regulations and Procedures.

The following relate to USSYQN-15-3 End Point Assessment:

Regulation D5 (Requirements to Pass a Module):
-This module has two assessment tasks, each with a mark expressed as a grade:
-Task 1: Professional discussion underpinned by a portfolio of evidence is graded Fail/Pass/Distinction.
-Task 2: Situational judgement test is graded Fail/Pass/Distinction.
-The overall module outcome is graded Fail/Pass/Distinction in line with the Healthcare Science Practitioner assessment plan.

Regulations D6 (Failure of a Module) & D7 (Failure of a Module Resit):
-A resit or retake will be capped at a pass, unless the university determines there are exceptional circumstances requiring a resit or retake.
-The apprentice's employer will need to agree that either a resit or retake is an appropriate course of action.

Regulation D11 (Arrangements for Awards Classifications) & D12 (Requirements for the Award of an Undergraduate Degree):
The End-Point Assessment module grade will count towards the overall degree classification.

The following relate to the entire award:

D8 (Compensation):
No modules can be considered for compensation.

C4 (Aegrotat Awards):
Aegrotat awards will not give eligibility for NSHCS accreditation.