

HEALTHCARE SCIENCE ASSOCIATE LEVEL 4 PROGRAMME PLAN - RESPIRATORY SLEEP PATHWAY

Duration: 24 months + End-Point Assessment (EPA)



CORE SESSIONS (ALL PATHWAYS)

- Being a Successful Student & Scientist
- Effective Communication
- Legal & Ethical context of working in Healthcare Science
- Health, Safety & Security
- Quality, Audit Research & Development
- Working in A Technical Environment
- Teaching, Training & Assessing Others
- Leadership, Supervision, Mentoring & Teamwork

PROGRAMME STRUCTURE

The programme is designed to develop Healthcare Science Associates working within Respiratory Sleep services, supporting the diagnosis, monitoring and treatment of both respiratory and sleep-related conditions.

Respiratory sleep services play an increasingly important role in healthcare, particularly in the diagnosis and management of sleep-related breathing disorders such as obstructive sleep apnoea (OSA). Healthcare Science Associates support diagnostic testing, therapy initiation and ongoing patient management, contributing directly to improved patient outcomes.

This programme develops the knowledge, skills and behaviours required to perform both respiratory and sleep diagnostics safely and effectively, while building confidence to work with increasing autonomy in specialist clinical environments.

The apprenticeship is delivered through:

- Monthly remote **core sessions** (shared across all pathways)
- **Specialist Respiratory Sleep teaching** aligned to workplace role
- **Workplace-based clinical practice and competency development**
- **Portfolio-based assessment** via e-portfolio
- **Regular coaching and progress reviews**
- **Gateway and End-Point Assessment** in the final months

Learning is applied directly within the workplace to support accurate diagnosis, effective treatment and high-quality patient care.

ASSESSMENT METHODS

Assessment is portfolio-based and includes a range of workplace evidence demonstrating clinical competence and applied knowledge.

Examples include:

- Direct observation of respiratory and sleep diagnostic procedures
- Reflective accounts of patient care and testing activities
- Professional discussions
- Case studies and diagnostic reasoning activities
- Work products (e.g. test results, sleep study data, CPAP records)
- Witness testimonies from colleagues or supervisors
- Competency-based assessments
- Knowledge questions or written assignments

All evidence is uploaded and reviewed through an e-portfolio system.



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Total off the Job Hours: 578 over a 24 months duration

OFF-THE-JOB LEARNING ACTIVITIES

Learners complete off-the-job training in line with apprenticeship requirements.

Activities include:

Core Learning

- Attending core sessions
- Completing knowledge-based assignments

Workplace Clinical Practice

- Preparing patients for respiratory and sleep tests
- Performing pulmonary function testing
- Setting up and managing sleep studies
- Supporting CPAP therapy initiation and review
- Calibrating and maintaining diagnostic equipment

Specialist Development

- Developing competency in respiratory and sleep diagnostics
- Building confidence in interpreting clinical data
- Understanding condition management and patient pathways

Quality and Service Improvement

- Supporting audit and quality assurance processes
- Reviewing diagnostic workflows
- Contributing to service improvements

Research and Professional Learning

- Reviewing respiratory and sleep-related guidelines
- Understanding clinical developments in sleep medicine
- Developing scientific and physiological knowledge

Reflective Practice and Portfolio Development

- Writing reflective accounts
- Recording competencies and evidence
- Gathering feedback from colleagues

Coaching and Progress Reviews

- Regular reviews with coaches
- Setting development goals
- Preparing for End-Point Assessment

PROGRAMME OUTCOME

Apprentices will be able to:

- Perform respiratory and sleep diagnostic tests safely and accurately
- Support sleep study set-up and CPAP therapy management
- Apply physiological knowledge in clinical practice
- Communicate effectively with patients and multidisciplinary teams
- Maintain diagnostic equipment and quality standards
- Contribute to improved patient outcomes and service delivery
- Operate within governance and professional frameworks

SPECIALIST PATHWAY DELIVERY – RESPIRATORY SLEEP

Delivered following the core units and aligned to workplace role.

Specialist areas include:

- Spirometry and reversibility testing
- Single breath gas transfer
- Static lung volumes
- Sleep diagnostics and sleep study set-up
- CPAP set-up, initiation and review
- Anatomy and physiology of the respiratory system
- Pathophysiology of respiratory and sleep disorders

Learners develop the skills to support both pulmonary function testing and sleep diagnostics, including the set-up and monitoring of overnight studies and supporting therapeutic interventions such as CPAP.

Specialist teaching is delivered by industry experts and directly linked to real clinical practice.

END-POINT ASSESSMENT (EPA)

The apprenticeship concludes with an independent End-Point Assessment.

The assessment typically includes:

• Observation of Practice

Assessment of clinical competence in respiratory and sleep diagnostics

• Professional Discussion

Exploring knowledge, skills and behaviours

• Portfolio Review

Showcasing evidence of competence and development

Achievement:

Level 4 Healthcare Science Associate Apprenticeship

Grades available: Pass or Distinction

FUNCTIONAL SKILLS

Functional Skills in English and maths are optional for apprentices aged 19+.

Support is provided where required.

PROGRESSION OPPORTUNITIES

On successful completion, learners may progress to:

- Band 4 Healthcare Science Associate / Assistant Practitioner roles
- Respiratory or Sleep Physiologist roles (with further training)
- Level 6 Degree Apprenticeships (e.g. Healthcare Science / Physiological Sciences)
- Registration with the Science Council as a Technician Scientist
- Specialist qualifications such as ARTP accreditation



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