

HEALTHCARE SCIENCE ASSOCIATE LEVEL 4 PROGRAMME PLAN - CARDIAC 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 Cardiology services, supporting the diagnosis, monitoring and management of cardiovascular conditions.

Cardiology services are essential in healthcare, supporting patients with conditions such as heart disease, arrhythmias and hypertension. Healthcare Science Associates play a key role in performing diagnostic tests, supporting clinicians, and contributing to early detection and management of cardiovascular disease.

This programme develops the knowledge, skills and behaviours required to perform cardiac diagnostic procedures safely and effectively, while building confidence to work with increasing autonomy within clinical teams.

The apprenticeship is delivered through:

- Monthly remote **core sessions** (shared across all pathways)
- **Specialist Cardiac 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 diagnostic accuracy, patient care and service delivery.

ASSESSMENT METHODS

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

Examples include:

- Direct observation of cardiac diagnostic procedures
- Reflective accounts of patient care and testing
- Professional discussions
- Case studies and diagnostic reasoning activities
- Work products (e.g. ECG traces, monitoring reports)
- 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 cardiac diagnostic tests
- Performing ECGs and blood pressure monitoring
- Supporting ambulatory monitoring
- Using and maintaining diagnostic equipment

Specialist Development

- Developing competency in cardiac diagnostics
- Building confidence in interpreting ECG traces
- Understanding cardiovascular conditions and patient pathways

Quality and Service Improvement

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

Research and Professional Learning

- Reviewing cardiac guidelines and best practice
- Understanding developments in cardiovascular care
- 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 cardiac diagnostic tests safely and accurately
- Interpret and report on ECG and monitoring data
- Support clinicians in diagnosing cardiovascular conditions
- Communicate effectively with patients and multidisciplinary teams
- Maintain diagnostic equipment and quality standards
- Contribute to early diagnosis and improved patient outcomes
- Operate within governance and professional frameworks

SPECIALIST PATHWAY DELIVERY – CARDIAC

Delivered following the core units and aligned to workplace role.

Specialist areas include:

- Electrocardiography (ECG)
- Blood pressure monitoring (including ambulatory monitoring)
- Cardiac anatomy and physiology
- Pathophysiology of cardiovascular disease
- Cardiac stress testing or tilt testing (optional focus areas)
- Adult or paediatric cardiac pathways

Learners develop the skills to perform and interpret cardiac diagnostic procedures, supporting clinicians in identifying and monitoring cardiovascular conditions.

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 cardiac 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
- Cardiac Physiologist roles (with further training)
- Level 6 Degree Apprenticeships (e.g. Healthcare Science / Physiological Sciences)
- Registration with the Science Council as a Technician Scientist
- Professional recognition through SCST (Society of Cardiac Science & Technology) pathways



 **Dynamic Training**

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