Standard
L3: Healthcare engineering specialist technician

Institute for Apprenticeships & Technical Education

UOS reference number

ST0950

Trailblazer reference number

TB0537

Title of occupation

Healthcare engineering specialist technician

Trailblazer name

Healthcare engineering specialist technician

Core and options

Yes

Resubmission

No

Level of occupation

Level 3

Route

Engineering and manufacturing

Typical duration of apprenticeship

48 months

Target date for approval

30 April 2021

Occupational profile

Summary

This is a core and options apprenticeship standard. Apprentices must be trained and assessed against the core and one option. There are two options:

- Option 1: Healthcare medical devices technician
- Option 2: Healthcare estates technician

The occupations are found in the engineering industry, working in the healthcare sector.

They work in sites where healthcare engineering takes place. This includes hospitals, dental hospitals and practices, clinics, prisons, ambulance trusts, care centres, health centres, hospices, GP practices, and mental health hospitals and secure units.

They work for NHS trusts, private healthcare providers, healthcare medical devices suppliers, healthcare estates suppliers and owners, or PFI (Private Finance Initiative) contractors.

Healthcare medical devices technicians work on medical devices. Healthcare estates technician work on plant, building services and systems. Most technicians work across a wide range of healthcare devices or healthcare estates.

They work in clinical settings and often have contact with patients. They may complete work where patients are present or where the medical device is connected to the patient. They witness patients in various stages of their illness or recovery.

The broad purpose of the occupation is to ensure patient safety and service continuity for specialist healthcare medical devices or healthcare estates in a clinical setting. They conduct planned maintenance to prevent issues occurring and reactive maintenance. Other duties include acceptance testing, installation, decommissioning, and safety tests and checks. Conducting handovers is an important part of the role. This requires explaining complex technical information and regulatory advice on healthcare devices or healthcare estates to clinical staff. Completing documentation and reports, and keeping stakeholders informed of their work status is also part of their role. As part of a team, they contribute to continuous improvement. They may support and coach others.

Healthcare medical devices technicians also conduct healthcare device audits, test, and calibrate equipment. Whereas healthcare estates technicians also manufacture parts, spares and components, and conduct site surveys.

They may work as part of a team or alone. They may spend a day at one site or work across sites. A driving license may be needed. They may use a company vehicle. They may work shifts or unsociable hours and may be required to be on-call.

In their daily work, they interact with other technicians, patients, healthcare staff and members of the public. Healthcare staff could include for example, consultants, doctors, nurses, dentists, pathology, and medical imaging staff. They may also have contact with suppliers and manufacturers. They typically report to a specialist engineering and estate managers.

They are responsible for completing their duties in line with company procedures and priorities. They must ensure a safe and secure environment for patients, staff, and visitors. And ensure patient dignity, respect and Caldicott principles (patient confidentiality) are met. They must comply with health and safety, environmental, sustainability, and engineering regulations and standards including specific healthcare requirements. They must comply with medical protocols for infection prevention and biohazard control. This may include wearing specialist healthcare Personal Protective Equipment (PPE). They work under limited direct supervision, ensuring the quality and accuracy of their own work and sometimes the work of others. They must ensure work is completed safely within agreed timescales, with minimal disruption to critical health services and within budgets. They must present a professional image of their employer and themselves.

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Employers may require a Disclosure and Baring Service (DBS) certification, occupational health screening and colour blindness tests.

Typical job titles

['Medical engineering technician', 'Medical electronics technical', 'Biomedical technician', 'Clinical engineer', 'Medical electronics technician', 'Biomedical engineer', 'Radiotherapy engineering technician', 'Multi-skilled craftsperson', 'Medical service engineer', 'Specialist craft person - electrical/mechanical', 'Dental engineering technician', 'Maintenance shift specialist', 'Maintenance craftsperson', 'Instrument curator', 'Building services technician']

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Duty	Knowledge	Skills	Behaviours
D1: Core. Organise, coordinate and action healthcare engineering specialist work to meet stakeholders' requirements and priorities including continuity of service. Identify time-frames for work and potential impact of work on clinical services for example, shutdown required. Seek authorisation to carry out work and permit to work where required. Arrange access to the ward or department. Arrange required resources.	K1, K3, K6, K7, K8, K9, K10, K11, K13, K16, K18, K19, K21, K23	S1, S2, S7, S12, S14, S15, S19, S20	B1, B2, B3, B4, B5, B6
D2: Core. Identify faults with healthcare equipment and services and action needed.	K1, K2, K3, K4, K7, K8, K9, K19, K22, K24, K25, K27, K28, K29, K34, K36	S4, S6, S7, S8, S10, S11, S12, S13, S21, S25, S29, S31	B4, B6, B7
D3: Core. Conduct safety checks and performance monitoring (energy usage) for healthcare equipment and services.	K1, K2, K3, K4, K6, K7, K8, K9, K23, K31, K36	S4, S6, S7, S8, S10, S11, S12, S13, S31	B2, B4, B6, B7
D4: Core. Contribute to continuous improvement in the healthcare engineering specialist function.	K1, K2, K3, K4, K6, K7, K9, K11, K13, K16, K37	S7, S12, S14, S18, S19, S32	B1, B2, B3, B4, B5, B7
D5: Core. Handover and provide technical and regulatory advice to clinical staff, administrators and/or managers on healthcare engineering equipment and services.	K1, K11, K13, K16, K17	S7, S8, S12, S14, S17, S19	B1, B3, B4, B5, B7
D6: Core. Inform stakeholders of healthcare engineering work status. For example, patients, ward managers, clinical staff, estates or devices managers.	K1, K11, K13, K16, K18, K23	S14, S16, S17, S19, S20	B1, B3, B4, B5
D7: Core. Complete documentation for healthcare engineering specialist work. For example, risk assessments, equipment service records, and test results.	K1, K3, K7, K9, K10, K11, K13, K14, K15, K18, K21, K23, K36	S1, S6, S9, S12, S13, S14, S16, S17, S19, S20	B2, B4, B5
D8: Core. Complete written reports for healthcare engineering specialist function. For example, adverse incident reports, technical investigations, equipment appraisals and specifications.	K1, K4, K6, K7, K9, K11, K12, K13, K14, K15, K18, K23, K24	S12, S14, S16, S17, S18, S19	B1, B2, B4, B7
D9: Core. Support and mentor members of the healthcare engineering specialist team.	K1, K11, K13, K16, K17	S14, S17	B3, B4, B5, B7
D10: Core. Ensure availability and performance of maintenance tools and equipment for healthcare engineering specialist function including specialist testing instruments. For example, multimeter and electrical testers.	K1, K4, K7, K8, K9, K19, K20	S3, S5, S6, S7, S9, S25, S26, S27, S28, S29, S30, S31	B2, B4
D11: Core. Complete acceptance testing for healthcare engineering specialist equipment. For example, for equipment installed by manufacturer or approved supplier, equipment received and/or equipment being evaluated for purchase.	K1, K2, K3, K4, K6, K7, K8, K9, K11, K19, K22, K23, K24, K25, K27, K28, K29, K30, K34, K36	S4, S6, S7, S8, S9, S10, S11, S12, S13, S25, S29, S31	B2, B4, B6, B7

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Duty	Knowledge	Skills	Behaviours
D12: Core. Conduct electrical and mechanical safety testing and checks for healthcare engineering specialist equipment. For example, portable appliance testing (pat).	K1, K2, K3, K4, K6, K7, K8, K9, K11, K19, K22, K23, K24, K25, K26, K27, K28, K29, K30, K36	S4, S6, S7, S8, S9, S10, S11, S12, S21, S25, S29, S31	B1, B2, B3, B4, B6, B7

Duty	Knowledge	Skills	Behaviours
D13: Option 1: Healthcare medical devices technician. Install healthcare medical devices.	K1, K2, K3, K4, K5, K6, K7, K8, K9, K19, K22, K24, K25, K26, K27, K28, K29, K30, K32, K36, K39, K40, K41, K42	S4, S6, S7, S8, S9, S10, S11, S12, S13, S21, S22, S23, S29, S30, S31, S33	B1, B2, B3, B4, B6, B7
D14: Option 1: Healthcare medical devices technician. Decommission healthcare medical devices.	K1, K3, K4, K5, K6, K7, K8, K9, K19, K22, K24, K25, K26, K27, K28, K29, K30, K32, K36, K38, K40, K41, K42	S4, S6, S7, S8, S9, S10, S11, S12, S13, S21, S24, S25, S30, S31	B2, B3, B4, B6, B7
D15: Option 1: Healthcare medical devices technician. Conduct planned and preventative maintenance for healthcare medical devices.	K1, K2, K3, K4, K5, K6, K7, K8, K9, K19, K22, K24, K25, K26, K27, K29, K30, K33, K36, K38, K39, K40, K41, K42	S4, S6, S7, S8, S9, S10, S11, S12, S13, S21, S25, S26, S28, S29, S30, S31, S33	B1, B2, B3, B4, B6, B7
D16: Option 1: Healthcare medical devices technician. Conduct reactive and breakdown maintenance.	K1, K2, K3, K4, K5, K6, K7, K8, K19, K22, K24, K25, K26, K27, K28, K29, K30, K33, K34, K35, K36, K38, K39, K40, K41, K42	S4, S6, S7, S8, S9, S10, S11, S12, S13, S21, S25, S26, S27, S28, S29, S30, S31, S33	B1, B2, B3, B4, B6, B7
D17: Option 1: Healthcare medical devices technician. Conduct healthcare medical devices audits, to ensure compliance with safety standards and procedures.	K1, K3, K4, K5, K6, K7, K8, K9, K19, K22, K23, K24, K25, K36, K38, K40, K41	S4, S6, S7, S8, S9, S10, S11, S12, S13, S19, S21, S29	B1, B2, B3, B4, B6, B7
D18: Option 1: Healthcare medical devices technician. Test and calibrate healthcare devices used in the diagnostic and therapeutic treatment of patients.	K1, K3, K4, K7, K8, K19, K20, K22, K23, K36, K38, K40, K41	S4, S6, S7, S8, S9, S10, S11, S12, S13, S29, S33	B1, B2, B3, B4, B6, B7

Duty	Knowledge	Skills	Behaviours
D19: Option 2: Healthcare estates technician. Install healthcare plant and estates equipment and systems.	K1, K2, K3, K4, K5, K6, K7, K8, K9, K19, K22, K23, K24, K25, K26, K27, K28, K29, K30, K32, K36, K43, K44, K45, K46	S4, S6, S7, S8, S9, S10, S11, S12, S13, S21, S22, S23, S29, S30, S31	B1, B2, B3, B4, B6, B7
D20: Option 2: Healthcare estates technician. Decommission healthcare plant and estates equipment and systems: buildings or equipment.	K1, K3, K4, K5, K6, K7, K8, K9, K19, K22, K24, K25, K26, K27, K28, K29, K30, K32, K36, K43, K45, K46	S4, S6, S7, S8, S9, S10, S11, S12, S13, S21, S24, S25, S30, S31	B2, B3, B4, B6, B7
D21: Option 2: Healthcare estates technician. Conduct planned and preventative maintenance for healthcare estates.	K1, K3, K4, K5, K6, K7, K8, K9, K19, K22, K23, K24, K25, K26, K27, K28, K29, K30, K33, K36, K43, K45, K46	S4, S6, S7, S8, S9, S10, S11, S12, S13, S21, S25, S26, S28, S29, S30, S31	B1, B2, B3, B4, B6, B7
D22: Option 2: Healthcare estates technician. Conduct reactive and breakdown maintenance for healthcare estates.	K1, K3, K4, K5, K6, K7, K8, K9, K19, K22, K24, K25, K26, K28, K29, K30, K33, K34, K35, K36, K43, K45, K46	S4, S6, S7, S8, S9, S10, S11, S12, S13, S21, S25, S26, S27, S28, S29, S30, S31	B1, B2, B3, B4, B6, B7
D23: Option 2: Healthcare estates technician. Manufacture basic parts, spares, or components for healthcare estates for temporary repairs when supplies are not available. For example, washers, shims, and brackets.	K1, K7, K8, K9, K19, K22, K24, K26, K36, K43, K45	S4, S6, S7, S8, S9, S10, S11, S12, S31, S34	B2, B4, B6, B7
D24: Option 2: Healthcare estates technician. Test, survey and monitor healthcare estates infrastructure and condition monitor the estate and equipment.	K1, K3, K4, K5, K6, K7, K8, K9, K36, K43, K44, K45, K46	S4, S6, S7, S8, S9, S10, S11, S12, S13, S19, S29	B1, B2, B3, B4, B6, B7

Knowledge

K1: Engineering function in the healthcare sector; roles, duties, interdependencies and reporting channels. Types of employers. Supply chain. Stakeholder requirements and priorities including the importance of continuity of service. Principles of clinical governance; its benefits for patients and staff.

K2: Technological development and innovation in the healthcare engineering sector. Industry 4.0. IT networking.

K3: Working in a clinical environment. The patient's journey. Patient contact protocols. Patient safety, dignity, respect, confidentiality and Caldicott principles requirements.

K4: Engineering standards and regulations. British Standards (BS). International Organisation for Standardisation standards (ISO). European Norm (EN). Standard Operating Procedures (SOP). What they are and how to use them.

K5: Medical protocols for infection prevention and biohazard control for example, cleaning and disinfection of tools, pre-work disinfection requirements, decontamination prior to disposal.

K6: Healthcare engineering industry regulations and guidelines. Medicines and Healthcare products Regulatory Agency regulations. Care Quality Commission regulations. Health Technical Memorandums (HTMs). NHS Premises Assurance Model (NHS PAM). What they are and how to use them.

K7: Health & safety regulations. Health & Safety at Work Act. Control of Substances Hazardous to Health (CoSHH). Working in confined spaces. Lone working. Provision of Work Equipment Regulations (PUWER). Lifting Operations and Lifting Equipment Regulations (LOLER). Electrical safety and compliance. Noise regulation. L8 Legionella. Slips trips and falls. What they are and how to use them.

K8: Core. Health & safety requirements: manual handling, Personal Protective Equipment (PPE), risk assessments and method statements, specialist healthcare PPE, clinical risk assessments, signage and barriers.

K9: Environmental regulations and requirements. Environmental Protection Act. Sustainability. Waste Electrical and Electronic Equipment Directive (WEEE). Hazardous waste regulations. Recyclable materials and waste disposal procedures. Energy monitoring. Data logging to optimise energy performance. The Climate Change Agreements. Carbon Reduction Commitment (CRC). What they are and how to use them.

K10: Planning techniques, time management, workflow, work scheduling, work plans and documents. Work categorisation systems.

K11: Communication techniques: verbal, written, electronic. Matching style to audience. Engineering terminology.

K12: Report writing.

K13: Information technology: email, word processing, spreadsheets, work management systems.

K14: Documentation methods and requirements - electronic and paper. For example, job records, timekeeping, service reports, checklists, condemnation certificates.

K15: Data protection requirements: General Data Protection Regulation (GDPR). Information governance. Removal of patient identifiable data.

K16: Team working techniques. Equality, diversity, and inclusion in the workplace.

K17: Training, mentoring and coaching techniques. How to pass on knowledge and provide guidance to customer/stakeholder.

K18: Financial constraints. Service level agreements.

K19: Machinery, tools, and equipment used in healthcare engineering. Purpose, safe correct use, maintenance, carriage and storage.

K20: Calibrated equipment requirements including calibration certificates.

K21: Stock/services considerations. Availability, stock lead times. Correct handling. The identification of equipment and parts. Function of parts, spares and components. Stock value. Returns process. Salvageability of parts to be removed.

K22: Manufacturers' instructions: what they are and how to use them. Warranties: what they are and impact on engineering work.

K23: Statutory certificates including electricity certificates, theatre validations.

K24: Engineering representations, drawings, and graphical information.

K25: Engineering mathematical and scientific principles: calculations, conversions, flow rates and equipment sizing.

K26: Materials and their properties.

K27: Mechanical principles: motion and mechanics, storage and transfer of forces and energy in operation, motors and pumps.

K28: Electrical and electronic principles: principles of electricity and electronics, electric circuit theory, motors and pumps.

K29: Mechatronics principles: key components of integrated mechanical and electrical systems; their design, operation.

K30: Control systems principles.

K31: Energy consumption and usage profiling.

K32: Installation, commissioning and decommissioning practices and techniques.

K33: Maintenance practices and techniques: planned, preventative and predictive methods and frequency, and reactive.

K34: Fault finding and problem solving techniques: diagnostics, troubleshooting and testing. Common faults and causes.

K35: Repair practices and techniques.

K36: Quality assurance principles and practice. For example, 6S methodology – 'sort', 'set in order', 'shine', 'standardise', 'sustain' and 'safety. Record keeping.

K37: Continuous improvement principles and practices for the benefit of organisation, patient, client, and/or work process. For example, Lean, Six Sigma, Kaizen.

K38: Option 1. Healthcare medical devices technician: Purpose and operation of devices: •Diagnostic and therapeutic equipment: anaesthetic machines, patient ventilators, and critical life support machines •Operating theatre and pathology equipment •Monitoring and infusion

devices •Portable imaging equipment and scanners including hand, CT (Computerised Tomography) and MRI (Magnetic Resonance Imaging) •Renal dialysis equipment •Gas delivery systems •Assistive and rehabilitation technology.

K39: Option 1. Healthcare medical devices technician: Physiology and anatomy in relation to medical equipment.

K40: Option 1. Healthcare medical devices technician: BS EN 60601 / BS EN 62353 Safety testing of medical electrical equipment and medical electrical systems.

K41: Option 1. Healthcare medical devices technician: Quality control systems: medical devices directive, lifecycle management and hazard notices.

K42: Option 1. Healthcare medical devices technician: Networking and integration of healthcare devices.

K43: Option 2. Healthcare estates technician: Purpose and operation of estates; interconnections of systems and impact on service continuity: •critical theatre ventilation systems •life-critical medical electrical distribution for healthcare estates with back-up generators - Isolated Power Supply (IPS) and Uninterruptible Power pipeline Supply (UPS) •medical gas systems and medical air and vacuum •critical resilience back-up systems •high pressure gas supplies •high vacuum systems •medical sterilisation systems including sterlizers, washer disinfectors and ultrasonic cleaners •steam systems (clean steam, sterilisation) •hot and cold water systems •lifts (safety checks and safe rescue) and patient hoists •nurse call systems •fire safety systems •foul and storm drains •heat, light and Power systems, including boilers •energy management systems •catering equipment maintenance •domestic services and portering equipment •security equipment maintenance.

K44: Option 2. Healthcare estates technician: Estates engineering industry regulations and guidelines. Health Building Notes. What they are and how to use them.

K45: Option 2. Healthcare estates technician: Estates Health & safety regulations and requirements. Asbestos awareness. Working at height. Permits to work. Safety passports. Food hygiene. Vehicle safety. Pressure Systems Safety Regulations (PSSR). Construction Skills Certification Scheme compliance. EH40 workplace exposure limits. Building Management System (BMS). Site survey requirements and processes. What they are and how to use them.

K46: Option 2. Healthcare estates technician: System resilience. Site wide energy infrastructure and the associated resilience needed to ensure continuity of service. For example, site and equipment Uninterruptible Power Supply (UPS), Generators, Dual fuel systems.

Skills

S1: Plan and schedule own and others' work.

S2: Monitor, obtain and check stock/supplies, and complete returns.

S3: Check maintenance tools and equipment including calibration records of test equipment where applicable. Complete maintenance of tools and equipment including calibration where required.

S4: Select and use hand tools, specialist tools and instruments including electrical safety test equipment.

S5: Store tools and equipment.

S6: Identify and document risks and hazards in the workplace. Advise on and apply control measures.

S7: Comply with health and safety regulations, legislation, and safe working practices including signage and barriers.

S8: Comply with any clinical restrictions in work area.

S9: Comply with statutory and organisation environmental and sustainability requirements: safe disposal of waste, recycling of materials and efficient use of resources.

S10: Follow manufacturers' instructions and procedures.

S11: Follow standard operating procedures.

S12: Read and interpret information. For example, text, data, engineering drawings, job card, work instructions, risk assessments, method statements, operation manuals.

S13: Collect and record data. For example, energy usage, test results.

S14: Communicate with colleagues and/or stakeholders for example, patients, colleagues, managers,' and the public – verbal, written or electronic. Use sector/industry terminology appropriately.

S15: Negotiate with stakeholders such as clinical team or authorised person. For example, in relation to access or equipment/system outage.

S16: Identify and report on progress and issues or concerns where applicable.

S17: Provide information, guidance, or training to colleagues and/or stakeholders. For example, clinical staff.

S18: Write reports. For example, adverse incident reports, technical investigations, equipment appraisals and specifications, improvement suggestions.

S19: Use information technology. For example, for document creation, communication, and information management.

S20: Enter information to record work activity. For example, job sheets, risk assessments, equipment service records, test results, handover documents and manufacturers' documentation, asset management records, work sheets, checklists, waste environmental records and any legal reporting requirements.

S21: Lock off and isolate equipment/systems.

S22: Commission equipment.

S23: Assemble, position and fix equipment and/or components.

S24: Disconnect and remove equipment or components. Categorise equipment/components for reuse, disposal, or recycling. Complete storage measures to prevent deterioration.

S25: Assess condition of components and equipment, identifying action required.

S26: Apply maintenance practices and techniques. For example, clean, lubricate, replace parts.

S27: Apply fault-finding and diagnostic testing procedures to identify faults.

S28: Replace/fit and repair components.

S29: Test and check equipment or system against quality and/or operational parameters.

S30: Use washer disinfectors, steam sterilisers or alternatives to decontaminate healthcare

equipment and maintenance tools and equipment, pre-and-post work.

S31: Restore the work area on completion of the activity. Return resources and consumables.

S32: Apply continuous improvement techniques. Devise suggestions for improvement.

S33: Option 1: Healthcare medical devices technician. Calibrate healthcare equipment.

S34: Option 2: Healthcare estates technician. Design and cut, drill, weld as appropriate to produce basic part, spare or components where consent to manufacture is given.

Behaviours

B1: Patient focus. For example, aims to maintain patient safety, continuity of service, infection control, and prevention and improve service. Sensitive to clinical environment and maintains patient confidentiality.

B2: Prioritise health, safety, sustainability and the environment.

B3: Act professionally representing employer well. For example, friendly, courteous, tactful, uses appropriate language, instils confidence and takes account of equality and diversity considerations.

B4: Take responsibility. Completes work with minimal supervision. Knows own limitations and asks for help where needed.

B5: Team player. Keeps colleagues informed. Supports colleagues to complete work and develop. Considers implications of their own actions on others in the team.

B6: Adaptable. For example, responds positively to changing priorities and deadlines. Resilient under pressure. Manages multi-skilled tasks and works to deadlines.

B7: Committed to continued professional development. Keeps up to date with developments in the engineering industry and healthcare sector.

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D2: Core. Identify faults with healthcare equipment and services and action needed.	7
D3: Core. Conduct safety checks and performance monitoring (energy usage) for healthcare equipment and services.	4
D4: Core. Contribute to continuous improvement in the healthcare engineering specialist function.	5
D5: Core. Handover and provide technical and regulatory advice to clinical staff, administrators and/or managers on healthcare engineering equipment and services.	6
D6: Core. Inform stakeholders of healthcare engineering work status. For example, patients, ward managers, clinical staff, estates or devices managers.	3
D7: Core. Complete documentation for healthcare engineering specialist work. For example, risk assessments, equipment service records, and test results.	2
D8: Core. Complete written reports for healthcare engineering specialist function. For example, adverse incident reports, technical investigations, equipment appraisals and specifications.	5
D9: Core. Support and mentor members of the healthcare engineering specialist team.	3
D10: Core. Ensure availability and performance of maintenance tools and equipment for healthcare engineering specialist function including specialist testing instruments. For example, multimeter and electrical testers.	16
D11: Core. Complete acceptance testing for healthcare engineering specialist equipment. For example, for equipment installed by manufacturer or approved supplier, equipment received and/or equipment being evaluated for purchase.	10
D12: Core. Conduct electrical and mechanical safety testing and checks for healthcare engineering specialist equipment. For example, portable appliance testing (pat).	20
D13: Option 1: Healthcare medical devices technician. Install healthcare medical devices.	70
D14: Option 1: Healthcare medical devices technician. Decommission healthcare medical devices.	35
D15: Option 1: Healthcare medical devices technician. Conduct planned and preventative maintenance for healthcare medical devices.	11
D16: Option 1: Healthcare medical devices technician. Conduct reactive and breakdown maintenance.	70
D17: Option 1: Healthcare medical devices technician. Conduct healthcare medical devices audits, to ensure compliance with safety standards and procedures.	15
D18: Option 1: Healthcare medical devices technician. Test and calibrate healthcare devices used in the diagnostic and therapeutic treatment of patients.	35
D19: Option 2: Healthcare estates technician. Install healthcare plant and estates equipment and systems.	56
D20: Option 2: Healthcare estates technician. Decommission healthcare plant and estates equipment and systems: buildings or equipment.	14
D21: Option 2: Healthcare estates technician. Conduct planned and preventative maintenance for healthcare estates.	14
D22: Option 2: Healthcare estates technician. Conduct reactive and breakdown maintenance for healthcare estates.	44
D23: Option 2: Healthcare estates technician. Manufacture basic parts, spares, or components for healthcare estates for temporary repairs when supplies are not available. For example, washers, shims, and brackets.	44
D24: Option 2: Healthcare estates technician. Test, survey and monitor healthcare estates infrastructure and condition monitor the estate and equipment.	9

Entry requirements

Typically, GCSE grade B / 5 or above in mathematics, plus four other GCSE subjects at grade C / 4 or above, one being a science based subject.

Professional recognition

Professional body	Level	Full or partial recognition	What further requirements are needed for full recognition
Engineering Council	Engineering Technician (EngTech)	Full	The experience gained and responsibility held by the apprentice on completion of the apprenticeship will either wholly or partially satisfy the requirements for EngTech.
The Institution of Healthcare Engineering and Estate Management (IHEEM)	Technician (TIHEEM)	Full	—

Progression routes

ST0024: L6: Electrical or electronic technical support engineer (degree)

Progression routes comments

Healthcare medical devices technician: Electrical and electronic support engineer, Healthcare engineer, Healthcare technician, Senior healthcare technician. Healthcare estates technician: Trainee estates officer, Estates officer, Hospital engineer.

Trailblazer membership details

Chair

Wayne Carr (CHoICE Facilities Services (Working in partnership with South Tyneside & Sunderland NHS Foundation Trust)

Facilitator

Eileen Bayles (None)

Employer members

Name	Employer
Alison McCree	Synchronicity Care Limited (wholly owned company of Co Durham & Darlington NHS Foundation Trust)
Andy Fairless	The Newcastle upon Tyne Hospitals NHS Foundation Trust
Chris Halcrow	NHFML (A wholly owned subsidiary of Northumbria Healthcare NHS Foundation Trust) – Medical Engineering
Chris Lawson	Musgrove Park Hospital NHS Trust
Claire Hennessy	Birmingham Community Healthcare NHS Foundation Trust
Darryn Kerr	University Hospitals of Leicester NHS Trust
Dave Cairns	South Tees Hospitals NHS Foundation Trust – Medical Engineering
David Jones	University Hospital Southampton NHS Foundation Trust
Diego Peralta	South Tyneside & Sunderland NHS Foundation Trust
Gary Lewis	Manchester University Hospitals NHS Foundation Trust
George Atkinson	Poole Hospital NHS Foundation Trust
George Storey	The Newcastle upon Tyne Hospitals NHS Foundation Trust
Ian Rooney	South Tees Hospitals NHS Foundation Trust
John Dickinson	York Teaching Hospitals NHS Foundation Trust
Kevin Oxley	South Tees Hospitals NHS Foundation Trust
Malcolm Aiston	NTW Solutions (Part of the Northumberland Tyne and Wear NHS Foundation Trust Group)

Name	Employer
Mark Lowes	The Newcastle upon Tyne Hospitals NHS Foundation Trust – medical engineering
Mike Williams	York Teaching Hospitals NHS Foundation Trust
Owen Cusack	NHFML (A wholly owned subsidiary of Northumbria Healthcare NHS Foundation Trust)
Paul Foxton	Tees, Esk and Wear Valleys NHS Foundation Trust
Richard Speight	North Tees & Hartlepool Solutions LLP (A wholly owned subsidiary of North Tees and Hartlepool NHS Foundation Trust)
Stephen Cross	Royal Devon & Exeter Hospital NHS Foundation Trust
Steve Morley	Synchronicity Care Limited (wholly owned company of Co Durham & Darlington NHS Foundation Trust)
Tony Pratt	QE Facilities (QEF) (wholly owned subsidiary company of Gateshead Health NHS Foundation Trust)

Other members

Name	Organisation
Andrew Barton	EAL (EPAO)
Fay Lane	Health Education England (HEE)
John Thatcher	Eastwood Park
Pete Sellars	IHEEM (Institute of Healthcare Engineering and Estate Management)
Susan Thompson	SIAS
Tim Litherland	Hefma (Health Estates & Facilities Management Association)