

# Infrastructure Technician

## Apprenticeship

### Level 3

'Infrastructure Technician' is a term that covers a range of key roles such as Help Desk Technician, First or Second Line Support Officer or Network Support Technician. These are versatile roles that require broad knowledge and understanding of IT.

Finding someone with this range of skills able to operate competently across all areas is a challenge. Even more so when taking into account the need for good interpersonal skills so they can relate to clients and become part of your team.

Recruiting an apprentice can be a smart, cost-effective way of training someone up, making sure they meet your standards and understand your operation. This new apprenticeship has been designed by industry- professionals so it is relevant to your requirements and is suitable for recruiting and training new staff or upskilling existing staff.

### Key Areas of Study

Your apprentice will cover essential knowledge, skills and behaviours on their programme. The full menu of options for what will be covered is outlined below.

#### Quick Information:

#### New Apprenticeship Standard designed by employers for employers

**Sector:**

Relevant to all employment sectors

**Who is it for?**

New recruits and existing staff

**Start date:**

September 2018

**Level:**

Level 3

**Duration:**

Typically 18 months minimum

**How does it work?**

Delivered in the workplace with one day a week in College over 35 weeks and Trainer Assessor visits every 6/8 weeks

**Content:**

Menu of learning aims that will be tailored to meet your specific business needs

**Assessment:**

Portfolio, business project, employer reference and structured interview during and at the end of the programme

**Qualification:**

Infrastructure Technician Apprenticeship

**Additional qualifications:**

This apprenticeship is recognised for entry onto the register of IT technicians confirming SFIA Level 3 professional competence



## **Technical Competencies (Work-based Learning)**

### **Communication**

- Works both independently and as part of a team and following the organisations standards; competently demonstrating an ability to communicate both in writing and orally at all levels, using a range of tools and demonstrating strong interpersonal skills and cultural awareness when dealing with colleagues, customers and clients during all tasks.

### **IT Security**

- Demonstrates the necessary skills and behaviours to securely operate across all platforms and areas of responsibility in line with organisational guidance, legislation.

### **Remote Infrastructure**

- Effectively operates a range of mobile devices and can securely add them to a network in accordance with organisations policies and procedures.

### **Data**

- Effectively records, analyses and communicates data at the appropriate level using the organisation's standard tools and processes and to all stakeholders within the responsibility of the position.

### **Problem Solving**

- Applies structured techniques to common and non-routine problems, testing methodologies and troubleshooting and analyses problems by selecting the digital appropriate tools and techniques in line with organisation guidance and to obtain the relevant logistical support as required.

### **Workflow Management**

- Works flexibly and demonstrates the ability to work under pressure to progress allocated tasks in accordance with the organisation's reporting and quality systems.

### **Health and Safety**

- Interprets and follows IT legislation to securely and professional work productively in the work environment.

### **Performance**

- Optimises the performance of hardware, software and Network Systems and services in line with business requirements.

Can explain the correct processes associated with WEEE (the Waste Electrical and Electronic Equipment Directive).

## **Technical Knowledge and Understanding (Part College and Work-based Learning)**

- Working knowledge of a range of cabling and connectivity, the various types of antennas and wireless systems and IT test equipment
- Understands maintenance processes and applies them in working practices
- Understands and applies the basic elements and architecture of computer systems
- Understands where to apply the relevant numerical skills e.g Binary
- Understands the relevant networking skills necessary to maintain a secure network
- Understands the similarities, differences and benefits of the current Operating Systems available
- Understands how to operate remotely and how to deploy and securely integrate mobile devices
- Understanding and working knowledge of Cloud and Cloud Services
- Understands the importance of disaster recovery and how a disaster recovery plan works and their role within it
- Understands the similarities and differences between a range of coding and logic
- Understand and complies with business processes
- Working knowledge of business IT skills relevant to the organisation

## **Underpinning Skills, Attitudes and Behaviours**

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- Logical and creative thinking skills
- Analytical and problem solving skills
- Ability to work independently and to take responsibility
- Can use own initiative
- A thorough and organised approach
- Ability to work with a range of internal and external people
- Ability to communicate effectively in a variety of situations
- Maintain productive, professional and secure working environment

## **Qualifications**

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These mainly consist of Ofqual-regulated knowledge modules. Apprentices must be successful at all of the Ofqual-regulated knowledge modules listed below. In addition, they must achieve at least one internationally recognised vendor or professional qualification which will exempt them from one of the Ofqual-regulated knowledge modules. Vendor and professional qualifications are subject to availability in discussion with employers.

### **Knowledge Module 1: Networking and Architecture**

- Understand the use of a range of cabling and connectivity, the various types of antennas, wireless systems and IT test equipment
- Understand maintenance processes
- Understand the fundamentals of computer configuration
- Understand the architecture of business systems
- Understand the application of computational unit notation
- Understand skills necessary to maintain a secure network

Vendor qualifications for this module could include: CCNA 1, MTA Network Fundamentals Network +, A + CIW Network Technology Associate

### **Knowledge Module 2: Mobile and Operating Systems**

- Understand the benefits of current Operating Systems
- Understand remote operation, deployment and secure integration of mobile devices

Vendor qualifications for this module could include: CCNA Security, MCP Managing and Maintaining Windows 8, MCP Configuring Windows 8, MTA Mobility and Devices Fundamentals, Security +, Mobile +, CIW Internet Associate, CIW Mobile Application Development.

### **Knowledge Module 3: Cloud Services**

- Understand Cloud and Cloud Services
- Understand disaster recovery and disaster recovery plans

Vendor qualifications for this module could include: MTA Server Admin, Enabling Office 365 Services, Enabling Office 365 Identities and Requirements, MTA Cloud Fundamentals, Install, Configure Windows Server 2012, Administration of Windows Server 2012, Configure Advanced Windows Server 2012 Services.

#### **Knowledge Module 4: Coding and Logic**

- Understand the features and applications of a range of coding and logic used in support roles

Vendor qualifications for this module could include: MTA HTML5 App Development Fundamentals.

#### **Knowledge Module 5: Business Processes**

- Understand business processes and information security requirements that apply to IT function
- Understand IT skills and services that support business operations

Vendor qualifications for this module could include: CIW Internet Business Associate, ITIL Foundation Level.

### **Training, Tutoring and Assessment**

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The whole programme takes around 18 months to complete, at which point your apprentice can start their final assessment. The pace at which the apprentice progresses will be driven by you and the apprentice. We will work closely with you to plan and deliver appropriate support and training. Your apprentice will mainly learn on the job, but one-to-one tutoring is a key part of the new apprenticeship standards, not just assessment, with more time on tutoring as part of the 20% off-the-job training. Employers are expected to supervise and support apprentices through various forms of coaching and training to meet the levels of competence and applied knowledge outlined above.

We will carry out joint reviews with you at regular intervals to discuss progress. You can use your normal performance management processes to monitor the progress of the apprentice, provide feedback and guide development. Your apprentice will be expected to keep a portfolio to track their learning and development throughout the apprenticeship.

Technical knowledge and understanding is assessed on programme through a combination of Ofqual- regulated Knowledge Modules (see above) and specified vendor or professional qualifications if required. These must be passed before the end point assessment can be taken.

## **End Point Assessment**

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In conjunction with the College, you will be asked to formally sign-off that the apprentice has met the minimum requirements for knowledge, skills and behaviours within the apprenticeship standard and confirm they are ready to move on to the end assessment, which will be measured as follows:

- **Portfolio:** Produced towards the end of the apprenticeship, the portfolio will contain evidence from real work projects that have been completed during the apprenticeship on the application of knowledge, competencies and behaviours detailed in the standard.
- **Project:** The apprentice will undertake a business-related project over a one-week period away from the day to day workplace.
- **Employer Reference:** This is your account of how the apprentice has performed in the workplace and how they have applied their knowledge, competencies and behaviours.
- **Structured Interview:** Exploring what has been produced in the portfolio and the project. The interview provides an opportunity for further evidence to be gathered and explored in more detail against any of the knowledge, competencies or behaviours.

For more information on the assessment for Infrastructure Technician Apprenticeship please see the full assessment plan and occupational brief as part of the Apprenticeship Standard documentation. We will arrange the End Point Assessment.

## **Apprentice Entry Requirements**

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As the employer, you will set the selection criteria, but this is likely to include five GCSEs, (including English, Mathematics and a Science or Technology subject); a relevant Level 2 Apprenticeship; other relevant qualifications and experience; or an aptitude test with a focus on IT skills. Level 2 English and Maths will need to be passed, if not already, prior to taking the final assessment; we will provide tutoring for this.

## Future/Other Opportunities

Networking Engineer Apprenticeship Level 4

## More information

To find out more about the opportunities and financing of apprenticeships and to discuss your particular requirements, please email **employer@sheffcol.ac.uk** or call **0114 260 2600** to speak to one of our friendly employer advisors.

## Why choose The Sheffield College?

As one of the region's largest providers of apprenticeships, The Sheffield College is more than just your local provider; we deliver the dedicated support you need to source, train and get the best out of your apprentice.

We appreciate how difficult and time consuming it can be to recruit staff. That's why, when you recruit an apprentice with us, our dedicated apprenticeship recruitment service, Job Connect, will advertise the vacancy, engage your candidates and even pre-screen them to make the process as easy as possible for you.

We help you get the best deal by finding the right funding and we handle the paperwork to make the process of arranging an apprenticeship training programme as smooth as possible. Our employer partnership team, apprenticeship tutors and assessment staff are experts, and we invest time and money in training and upskilling them regularly so their knowledge is up-to-date and industry standard.

At The Sheffield College we go above and beyond; we know that every business is different and we help to develop apprentices who will meet the needs of your business.

## Get In Touch

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