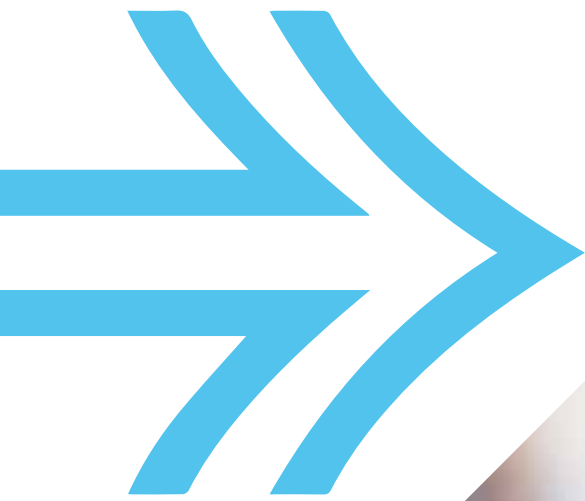**POWERING POTENTIAL**

Apprenticeship Programme Guide

NETWORK ANALYST SCQF 6

QA.com

DIGITAL AND TECH APPRENTICESHIPS

Building tech careers in the workplace

We offer digital and tech apprenticeships that focus on the most in-demand skills including; cyber, IT, software development, data and digital marketing, along with others in project management.

We help learners to progress and grow within your company, helping you retain talent and build capabilities.

Our award-winning approach to blended learning enables apprentices to develop further and faster, adding immediate value to their roles, whilst our interactive portal with real-time dashboards and trigger alerts enable managers to effectively and efficiently track progress.

Experience: 20,000 apprenticeships placed

An unrivalled talent pool:
In Scotland,. 20,000 apply to join our programmes every year

Proven:
We have high learner achievement rates*

*Over 800 Learners achieved their Apprenticeship with QA in 2022

CONTENTS

ROLE PROFILE

NETWORK ANALYST SCQF 6

This programme provides learners with the knowledge required to successfully support the implementation and maintenance of on-premise and cloud-based networks and services.

Learners are not expected to have any prior knowledge in this area. The Network Analyst SCQF 6 programme ensures that apprentices gain skills in all key areas necessary for the workplace, including:

- Core networking principles and technologies (including wireless)
- Cloud concepts
- Deployment models
- Service migration considerations
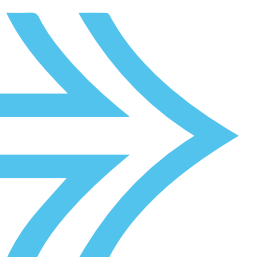
TYPICAL
JOB ROLES

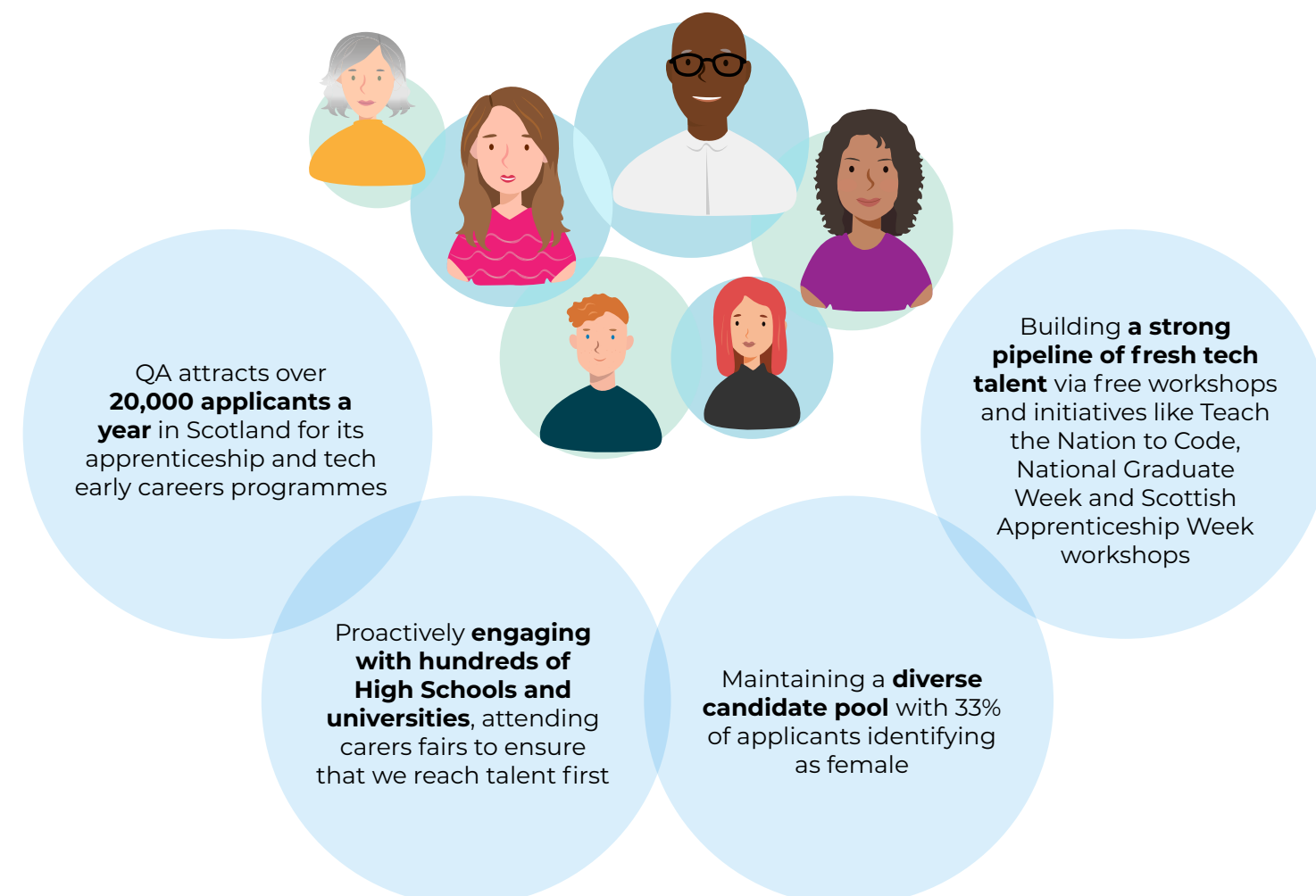Upon completion of this course learners will be equipped to work in roles such as:

- Network Technician
- Network Administrator
- Cloud Technician
- IT Support Analyst

FINDING NEW TALENT

We offer an extensive attraction and recruitment service for employers who are looking to use apprenticeships to bring new talent into their organisation. We use multiple channels and tactics to attract people who are interested in and are passionate about building a career in tech. Our recruitment model includes 1-2-1 interviews to ensure we select apprentices of the highest calibre.

We are committed to increasing diversity and tech and to help achieve this, we work closely with special interest groups and charities including; Code First Girls, Developing The Young Workforce, and LTSB (Leadership Through Sports and Business) who are a social mobility charity. This ensures apprentices from all backgrounds are given the same opportunities, and supports us to close the gender and diversity gap in tech.

QA attracts over **20,000 applicants a year** in Scotland for its apprenticeship and tech early careers programmes

Building **a strong pipeline of fresh tech talent** via free workshops and initiatives like Teach the Nation to Code, National Graduate Week and Scottish Apprenticeship Week workshops

Proactively **engaging with hundreds of High Schools and universities**, attending carers fairs to ensure that we reach talent first

Maintaining a **diverse candidate pool** with 33% of applicants identifying as female

DIVERSITY AND INCLUSION

We're passionate about diversity in tech

It's our mission to help eradicate the gender gap, and make sure equal opportunities are given to applicants from all backgrounds. We do this through our long-standing partnerships, QA-driven initiatives and use of trending tools and software.

Diversity-first candidate attraction

We've invested in using augmented copy checking tools to ensure language is inclusive, open to all and free from bias.

We use inclusive imagery throughout our campaigns – producing visual content that promotes diversity and inclusion.

Diversity partnerships

We forge partnerships with like-minded organisations who share our vision on STEM gender equality including; DYW, Code First: Girls, Stemettes and Young Professionals.

Promoting inclusivity

We nurture relationships with influencers, schools, colleges and universities via events and interactive sessions to ensure learners from all backgrounds are given the same opportunities.

Initial Assessment

Every candidate goes through an initial assessment where their current knowledge and skills are measured and mapped against the apprenticeship framework.

This process is an assessment of the apprentice's suitability for an apprenticeship programme, and ensures they are placed on the right programme at the right time. This contributes towards a successful completion and a good learner experience.

A BLENDED APPROACH TO LEARNING

How we deliver

QA's apprenticeships are designed to immerse the apprentice in their job role while providing time for them to complete the training to become occupationally competent.

QA Apprenticeships also provide more flexibility for the employer, allowing apprentices to learn through a combination of project and lab work, live events, self-research, self-paced learning and peer-to-peer learning.

Employer coaching, shadowing and mentoring remain essential, however, there will be more defined requirements to guarantee this is directly related to the apprenticeship and will be part of the training plan.

LEARNER SUPPORT

Safeguarding at QA

Safeguarding means ensuring the safety and wellbeing of our learners.

At QA, this means ensuring our polices and processes promote and protect learner wellbeing and that while you are on programme, and that while on programme, we teach learners about the types of risk facing modern day British citizens.

This includes cyber risks, mental and physical health information, risks of radicalisation or grooming and much more.

Prevent at QA

Prevent is part of the Government's counter-terrorism strategy.

At QA, this means we teach our staff and learners about the four British values: democracy, rule of law, individual liberty and respect and tolerance.

We also work with Prevent partners to identify people at risk of being or causing terror related harm.

Mental Health at QA

Emotional and mental wellbeing is an important component of successful learning.

Understanding how to protect mental health and promote emotional wellbeing is part of maintaining positive mental welfare.

We will always actively encourage conversations and make sure information is readily available to both learners and staff with regards to mental wellbeing.

Ways to access support if you are worried for yourself or someone else:

- Call us – anytime 07808 050273
- Email: safeguarding@qa.com
- Contact your Skills Coach, tutor or account manager
- Speak to any member of QA staff onsite

DIGITAL BY DESIGN APPRENTICESHIP PROGRAMMES

Digital by Design programmes

QA Digital by Design apprenticeships provide a greater focus on online learning together with using live interaction where it adds the most value for learners.

It means that there is a single learner journey which brings teaching, coaching, learning and assessment into a single, repeatable flow for every module.

In Digital by Design, these three elements will work together:

- The content
- The service and support
- The technology

Discover, practise and apply

All QA apprenticeships use a guided discovery approach to learning, as opposed to traditional methods of delivery such as live events. This shifts the emphasis from content delivery to our learners and their context, resulting in the apprentice feeling empowered to take ownership of their learning experience through the "Discover, Practise, Apply" model.

DISCOVER

Learners will learn the theory, by exploring subjects online and in the live events.
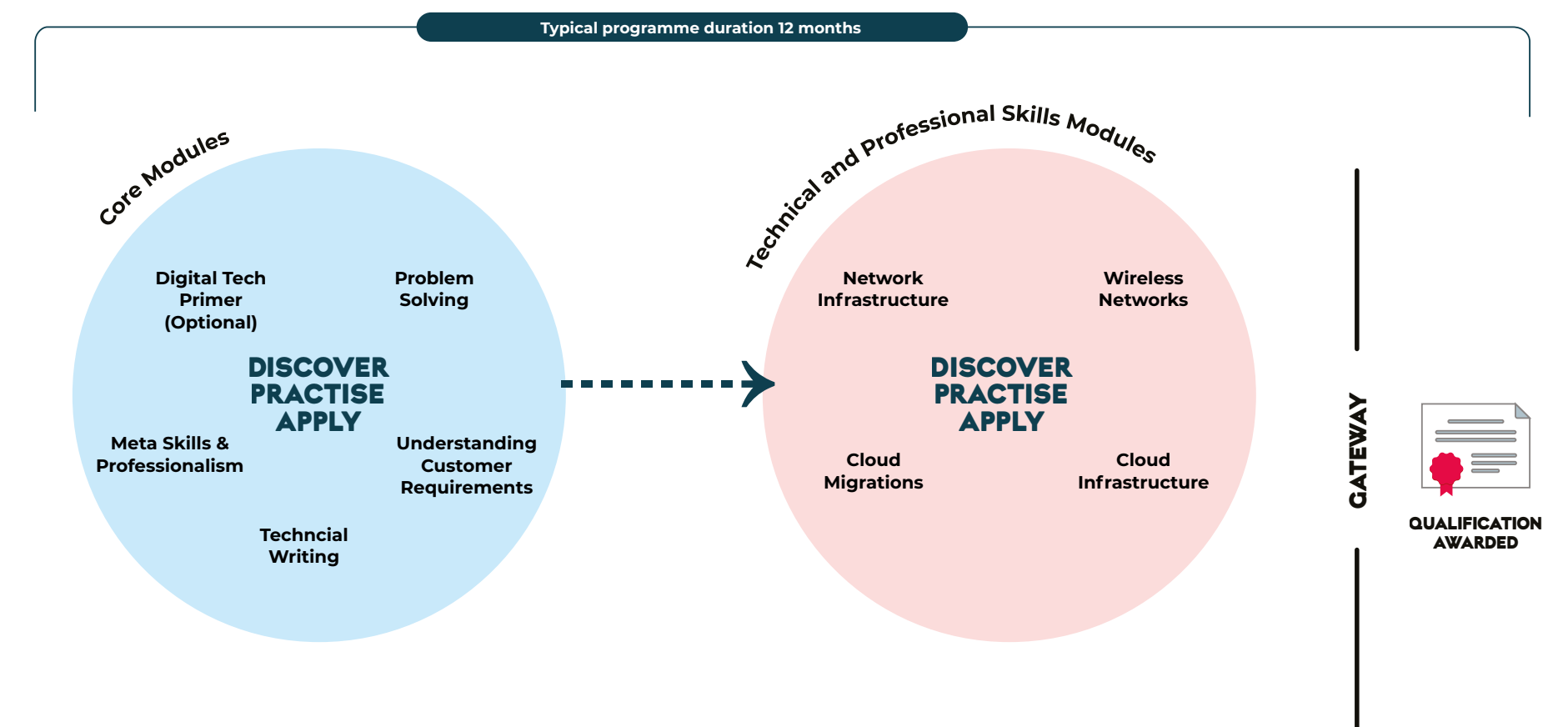
PRACTISE

Learners will practise their new-found knowledge by completing activities - online, in the live events and (most importantly) directly at work in their day-to-day role.

APPLY

Learners will apply what they've discovered and practised at work. They will actively contribute to your organisation whilst building their portfolio of evidence (showing how they've applied their new skills) to gain their qualification.
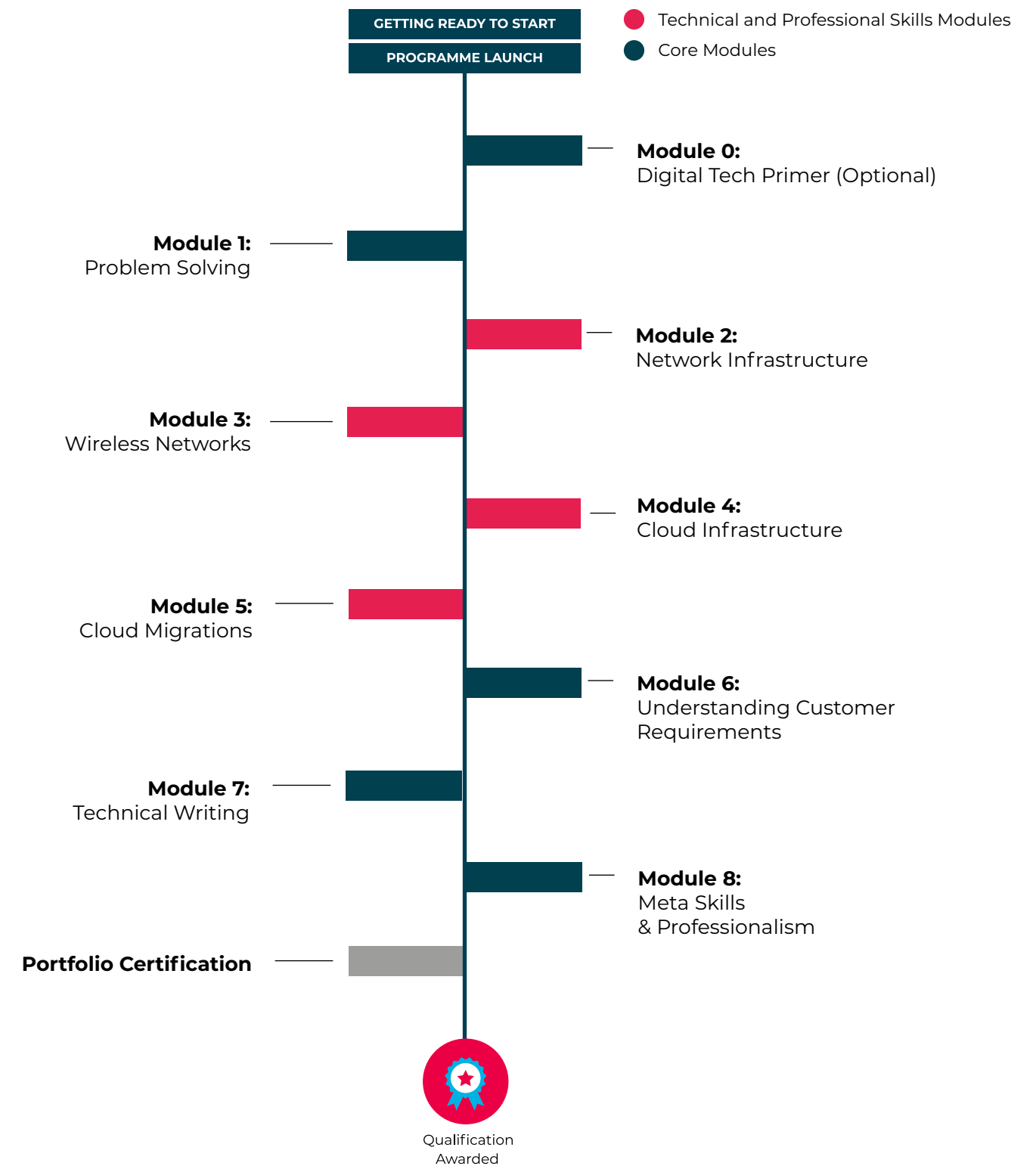
Network Analyst SCQF 6

Typical programme duration 12 months

Core Modules

Digital Tech Primer (Optional)

Problem Solving

DISCOVER PRACTISE APPLY

Meta Skills & Professionalism

Understanding Customer Requirements

Techncial Writing

Technical and Professional Skills Modules

Network Infrastructure

Wireless Networks

DISCOVER PRACTISE APPLY

Cloud Migrations

Cloud Infrastructure

GATEWAY

QUALIFICATION AWARDED

---> **Develop portfolio (competency evidence)**

*Optional Certification: AZ-900

THE LEARNER'S JOURNEY

Programme timeline | Duration: Typical programme duration 12 months

GETTING READY TO START

PROGRAMME LAUNCH

● Technical and Professional Skills Modules
● Core Modules

Module 0:
Digital Tech Primer (Optional)

Module 1:
Problem Solving

Module 2:
Network Infrastructure

Module 3:
Wireless Networks

Module 4:
Cloud Infrastructure

Module 5:
Cloud Migrations

Module 6:
Understanding Customer
Requirements

Module 7:
Technical Writing

Module 8:
Meta Skills
& Professionalism

Portfolio Certification

Qualification
Awarded

PROGRAMME STRUCTURE

Programme Launch

The Programme Launch will introduce learners to the apprenticeship, this module is kicked off with a digital session covering:

- The Programme Outline, Workflow and Structure
- Assessment/Certification/ Qualifications
- Time commitment, planning calendar for apprenticeship
- Setting expectations
- Introduce bud, CA & other technology requirements
- Introduce learners to assessment for optional Module 0: Digital Tech Primer

Assessment

There are no tests or exams involved in completing this apprenticeship. All learners will complete a portfolio of evidence, based on the modules completed on programme. Learners will be guided by their skills coach to achieve this.

There are a number of assessment methods that learners can use to generate and record evidence. Some of these are completed by themselves, such as personal reflective statements and product evidence (annotated screenshots).

Additionally, learners can collaborate with their skills coach to carry out presentations, observations, questioning and professional recorded discussions. Your employer may also provide witness testimonies on your behalf. These assessment methods are used to capture a learner's knowledge and skills across the range of competencies.
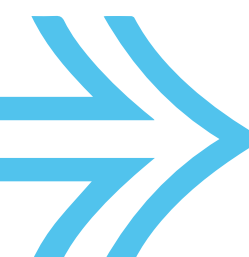
THE CORE, TECHNICAL & PROFESSIONAL SKILLS MODULES

The technical and core modules focus on the knowledge and skills required in detail. After each module learners will 'apply' what they've learned at work on current projects.

Module 0: ●
Digital Tech Primer (Optional)

In this optional module learners will be introduced to the fundamental concepts and technologies that make up an enterprise IT environment.

In addition learners will have access to a short PC fundamentals digital primer, providing them with the skills to work in a Windows Desktop environment and use basic productivity applications.

- Module duration: 4 weeks (combined with Module 1)
- Classroom attendance: N/A

Module 1: ●
Problem Solving

In this module learners will develop core problem solving knowledge, enabling them to support and solve problems in line with organisational procedures.

By completing the digital learning, learners gain an understanding of the end to end problem solving process, including: problem solving tools and techniques, trouble shooting, problem diagnosis, problem analysis, resolution planning, solution implementation and documenting of outcomes.

- Module duration: 4 weeks (combined with Module 1)
- Classroom attendance: 1 day

Module 2: ●
Network Infrastructure

This module focuses on the skills required to support the configuration, installation and testing of on-premises network operations. Learners will gain an appreciation of essential network security tools, techniques for validating network performance, providing users with access permissions and how to troubleshoot common network issues. Learners will also understand how to create network documentation.

Learners will undertake a 15 hour Digital Discovery learning path introducing the key Networking concepts, protocols, standards and physical and logical architecture before attending a highly practical three day course focusing on the installation, testing, monitoring and troubleshooting of network components.

- Module duration: 8 weeks
- Classroom attendance: 3 days

Module 3: ●
Wireless Networks

This module focuses on the skills required to support the configuration, installation and testing of Wireless Networks.

Learners will gain an appreciation of key Wireless Network concepts, standards and topoloiges as well as a practical understanding of how to deploy and manage Wireless Network equipment such as Wireless Access Points.

Learners will undertake a 15 hour Digital Discovery learning path introducing the key Wireless Network concepts, protocols, standards and physical and logical architecture before attending a highly practical two day course focusing on the installation, testing, monitoring and troubleshooting of Wireless Network components.

- Module duration: 8 weeks
- Classroom attendance: 2 days

Module 4: ●
Cloud Infrastructure

This module focuses on the skills required to operate and maintain Cloud services. Learners will gain an appreciation of key Cloud concepts, Cloud service and deployment models as well as an understanding of the importance of Cloud security. Learners will also gain a practical understanding of how to deploy and manage Cloud key services such as: VMs, Storage, Cloud Network, Identity and access services and automation tools.

Learners will undertake a 15 hour Digital Discovery learning path introducing the key Cloud concepts before attending a highly practical three day course focusing on administering core Cloud services in Microsoft Azure, AWS and GCP.

- Module duration: 8 weeks
- Classroom attendance: 3 days

Module 5: ●
Cloud Migration

This module focuses on the skills and knowledge required to assist in the migration of on-premise services into the public Cloud. Learners will be introduced to the broadly recognised best practice and processes for Cloud migrations. They will examine the main public Cloud vendor's "well architected" frameworks and explore some of the best in class tools that are used to automate the movement of workloads from data centres to the Cloud and test the new Cloud based services.

Additionally learners will be introduced to Cloud economics, FinOps and cost management and examine the risks (and risk mitigation options) involved in Cloud based services.

Learners will undertake a 15 hour Digital Discovery learning pathway introducing the key Cloud migration concepts before attending a highly practical three day course focusing on the practical approaches to migrating a service into the Cloud.

- Module duration: 8 weeks
- Classroom attendance: 2 days

● Technical and Professional Skills Modules
● Core Modules

Module 6: ●
Understanding Customer Requirements

In this module learners develop their fundamental knowledge of project delivery, enabling them to effectively support project delivery in their place of work.

Learners will work through the digital learning gaining a theoretical appreciation of: project delivery, stakeholder management, requirement definition, task and project planning, risk management and effective communication.

- Module duration: 4 weeks
- Classroom attendance: 1 day

Module 7: ●
Technical Writing

In this online module, learners will enhance their knowledge and understanding of workplace documentation, enabling the apprentice to produce and update documents for customers, colleagues and users in line with organisational process.

- Module duration: 3 weeks
- Classroom attendance: N/A

Module 8: ●
Meta Skills & Professionalism

In this online module learners develop their core knowledge of Meta Skills and Professionalism.

Enabling learners to understand the purpose and importance of meta-skills, how they relate to one's work and how to use reflective practice to identify gaps in knowledge and skills.
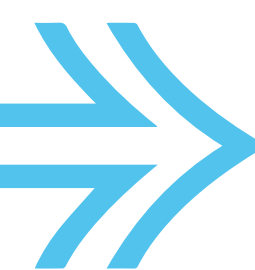
- Module duration: 3 weeks
- Classroom attendance: N/A

Qualifications earned

When they achieve this apprenticeship, learners will earn the following qualification:

- Network Analyst L6

● Technical and Professional Skills Modules
● Core Modules

LEARNING OUTCOMES

Apprentices will be assessed on all areas which emphasise the importance of both technical and core skills in the workplace.

CORE MODULES:

Digital Tech Primer (Optional)
- Enterprise IT
- Basic PC Skills

Problem Solving
- Introduction to Problem Solving
- Identifying, Diagnosing and Analysing Problems
- Planning Resolutions
- Implementing and Assessing Solutions
- Documenting Problems and Learning From Experience

Understanding Customer Requirements
- Introduction to Projects
- Stakeholders and Communications
- Project and Task Planning
- Tracking and Reporting Progress

Technical Writing
- Introduction to Documentation
- Industry Standards, Regulation and Policy
- Planning and Formatting
- Document Creation
- Graphics and Visualisation
- Version Control and Sign-Off

Meta Skills & Professionalism
- What are Meta Skills
- Personal Development
- Learning Styles
- Performance Reviews
- SMART Objectives
- Wellbeing

TECHNICAL AND PROFESSIONAL MODULES:

Network Infrastructure
- The Reasons for On-Premises Networks
- Network Operating Systems
- Network Topologies
- Software Defined Networking
- Network Layers
- Network Devices
- Network Security and Firewalls
- Network Communications
- Network Access Permission
- Network Protocols
- Internet Services
- Network Performance
- Network Testing
- Troubleshooting
- Network Documentation and Diagramming

Wireless Networks
- Wireless Concepts
- Why Use Wireless
- Wireless Network Topologies
- Network Protocols
- Installing a WAP
- Wireless Network Services
- Wireless Security
- Testing Wi-fi Connectivity
- Client Connectivity
- Wireless Standards
- Troubleshooting Wireless Network Performance
- Documenting and Diagramming

Cloud Infrastructure
- The Business Case for Cloud
- Cloud Fundamentals
- Cloud Service Models
- Cloud Deployment Models
- Virtualisation Technologies
- Cloud Architecture
- Implementing Cloud Services
- Building VMs in the Cloud
- Automation
- Cloud Storage
- Cloud Security
- Deploying Software to the Cloud
- Cloud Networking
- Troubleshooting
- Documenting Cloud Processes

Cloud Migration
- What Is the Cloud?
- FinOps and Cost Management
- Planning Cloud Migrations
- Risk
- Roles and Responsibilities
- Migrating Data and Apps to the Cloud
- Cloud Complexity
- Vendor Migration Tools
- Performing the Migration
- Well Architected Frameworks
- Testing Cloud Deployments
- Cloud Automation
- Cloud Security
- Cloud Data Governance
- User Access
- Resolving Migration Issues
- Cloud Monitoring
- Documenting Your Migration Plan

EXPANDING YOUR TECHNICAL SKILLS WITH cloud academy
A QA COMPANY

Our apprentices are given full access to our proprietary Cloud Academy platform for the duration of their programme.

Cloud Academy brings the very latest and up-to-date content to our apprentices through single units, courses and comprehensive learning paths to really build on the core learning outcomes defined within the programme. Furthermore, apprentices are able to prepare for the full suite of vendor qualifications across AWS, GCP and Azure and much more.

Cloud Academy users also benefit from Hands-On Labs, Lab Challenges and Lab Playgrounds providing a safe, sandbox environment in which our learners are able to practise in real time through guided walkthroughs or through their own exploration.

Check out the Training Library - Cloud Academy.

FOR MORE INFORMATION, PLEASE CONTACT

qa.com/contact

Skills Development Scotland

MODERN APPRENTICESHIPS