QQI
Quality and Qualifications Ireland
Dearbhú Cáilíochta agus Cáilíochtaí Éireann

QQI is currently developing its corporate brands and policies for awards and standards. Until this process is completed an interim format will be used for new QQI certificate/component specifications for the Common Awards System.

Certificate Details

Title: Networking Essentials
Irish Title: Bunriachtanais Líonraithe
Award Class: Minor
Level: 5
Credit Value: 15 FET Credits
Code: 5N2929

Purpose:	The purpose of this award is to equip the learner with the knowledge, skill and competence to support the operation of typical computer networks and be able to assist in implementing and maintaining common network configurations.

The learner should be able to:		NFQ level Indicators	
1	Describe the essential characteristics of the main components of computer networks including servers, clients, networked resources and wired and wireless communications devices and media.	Knowledge	**Breadth** Broad range of knowledge **Kind** Some theoretical concepts and abstract thinking, with significant depth in some areas
2	Identify the main similarities and differences between different types of spatial networks: personal area networks (PAN) local area networks (LAN), metropolitan area networks (MAN) and wide area networks (WAN).		
3	Analyse the benefits and limitations of computer resource sharing models including centralised, peer-to-peer, thin client, client-server and cloud computing.		
4	Outline the characteristics of the main elements of device identification on a network including device names, MAC addresses, static and dynamic IP addresses.		
5	Distinguish the key features and functions of a range of network		

	components including hubs, switches, repeaters, bridges, routers and gateways.		
6	Outline the functions of a range of common networking protocols used in the transport of data across a network.		
7	Use diagnostic tools to troubleshoot network performance and connectivity issues.	**Know-how and skill**	**Range** Demonstrate a broad range of specialised skills and tools
8	Implement network resource management e.g. file and print shares, permissions, etc.		**Selectivity** Evaluate and use information to plan and develop investigative strategies and to determine solutions to varied unfamiliar problems
9	Install a simple network, connect network devices, install and configure any additional software required and test.	**Competence**	**Context** Act in a range of varied and specific contexts, taking responsibility for the nature and quality of outputs; identify and apply skill and knowledge to a wide variety of contexts
10	Resolve basic network problems, analyse the fault, use appropriate diagnostic tools to investigate and verify findings, implement and test the solution.		**Role** Exercise some initiative and independence in carrying out defined activities; join and function within multiple, complex and heterogeneous groups
			Learning to learn Learn to take responsibility for own learning within a managed environment
			Insight Assume full responsibility for consistency of self-understanding and behaviour

Assessment Requirements

Details of QQI's assessment requirements are set out in QQI's current Assessment Guidelines. Assessment is criterion referenced. Successful achievement of the award is based on learners attaining the required standards of knowledge, skill or competence.

The techniques set out below are considered the optimum approach to assessment for this component. In exceptional circumstances providers may identify alternative assessment techniques through the provider's application for programme validation which are **reliable** and **valid** but which are more appropriate to their context.

Assessment of a number of components may be integrated across programmes for delivery, provided that the learning outcomes of each minor award are assessed.

Group or team work may form part of the assessment, provided each learner's achievement is separately assessed.

All providers are required to submit an assessment plan as part of their application for programme validation. Assessment Plans will include information relating to scheduling and integration of assessment. See QQI's current policy on programme validation.

Assessment Techniques

In order to demonstrate that they have reached the standards of knowledge, skill and competence identified in all the learning outcomes, learners are required to complete the assessment(s) below. The assessor is responsible for devising assessment instruments (e.g. project and assignment briefs, examination papers), assessment criteria and mark sheets, consistent with the techniques identified below and QQI's assessment requirements.

Programme validation will require providers to map each learning outcome to its associated assessment technique. See QQI's current policy on programme validation.
All learning outcomes **must** be assessed and achieved before the award may be made.

Skills Demonstration 70%
Examination - Theory 30%

Description

Skills Demonstration
A skills demonstration is used to assess a wide range of practical based learning outcomes including practical skills and knowledge. A skills demonstration will require the learner to complete a task or series of tasks that demonstrate a range of skills.

Examination - Theory
An examination provides a means of assessing a learner's ability to recall and apply knowledge, skills and understanding within a set period of time and under clearly specified conditions.

A theory-based examination assesses the ability to recall, apply and understand specific theory and knowledge.

Grading
Pass 50% - 64% Merit 65% - 79% Distinction 80% - 100%

Specific Validation Requirements
There are no specific validation requirements

Supporting Documentation
None

Access Statement
To access programmes leading to this award the learner should have reached the standards of knowledge, skill and competence associated with the preceding level of the National Framework of Qualifications. This may have been achieved through a formal qualification or through relevant life and work experience.