



Network Technology



The Network Technology module focuses on the practical aspects of setting up and looking after a network of between two and fifty personal computers. It provides a broad knowledge base sufficient to plan, implement, use, manage, and maintain small networks typical of those found in homes and small to medium-sized businesses.

Activities are provided for the student to practice the skills required to make and test network cabling and to investigate and research various network scenarios.

The module has been designed to operate within a lockstep environment, where all students carry out assignments simultaneously in the same topic area.

Ten assignments of on-screen learning materials are provided in an html format. Each assignment covers a specific topic area, and provides essential theory, hands-on practical activity and continuous student assessment.

An assignment typically begins with a PowerPoint presentation that provides students with background information required to complete the rest of the assignment.

If used with our ClassAct SRS system, questions integrated into the presentation can be tracked as each student responds on their handheld keypad.

Practical activities take a wide range of forms, including:

- Work with real cables, components, and tools
- Use of industry-standard software
- Investigation through on-screen applications
- Internet-based research tasks
- Problem solving activities

A workbook journal allows students to record key information as they progress through the assignments.

Topic areas include:

- Electronic Communications
- Networking Fundamentals
- Network Cable Types and Connectors
- Patch Cords and Crossover Cables
- Network Cabling Installation
- Joining a Network
- LANs, WANs, and the Internet
- Wireless Networks
- Network Management
- Troubleshooting Network Connectivity

Typical activities include:

- Examine LAN connectors, cables, and associated tools.
- Investigate networking a business.
- Discover how to join a network and share and access resources.
- Use a server operating system to add a user account.
- Analyze a network scenario and research and choose an upgrade.
- Terminate a UTP cable with a modular plug.
- Install horizontal cabling on the Structured Cabling Trainer.
- Terminate a UTP cable with a keystone jack.
- Identify and test UTP wire connections with a multimeter.
- Test UTP cables and cable assemblies with a cable testing unit.
- Select the components required to create a peer-to-peer network.
- Identify the characteristics and features of LAN connectivity devices.
- Examine wireless networking technologies.
- Investigate typical network management tasks.
- Explore threats to networks and how to minimize and manage risk.
- Troubleshoot a network connectivity problem.

Structured Cabling Trainer:

Students use the training panel, cables, connectors, and tools provided with this module to install and test industry-standard cabling.

Performance objectives:

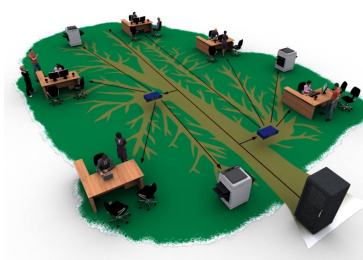
Each assignment is designed to meet a number of performance objectives. These include academic, technical, and occupational objectives.

The assignments are written in such a way as to enable a student to attain the performance objectives. Continuous assessment activity questions and assessment test questions are linked to these in order to provide a measure of true competency.

The performance objectives are used by the optional ClassAct management system and ClassCampus virtual learning environment (VLE), to generate a comprehensive portfolio of student reports.

Additional items required:

- Computer with internet access



Order as:

ST680 TTP Network Technology Complete Module

(Contains Hardware Pack, 12 Resource Packs, one Consumables Pack and one eContent Site License)

Or:

ST680/LS/HW Network Technology TTP Hardware Pack

(Includes Structured Cabling Trainer and tools required for teacher demonstrations. For cables and connectors see ST680/LS/C24)

Purchasing options:

ST680/LS/RP Network Technology Resource Pack

(Contains one set of tools for use by the student at the workstation)

ST680/LS/C24 Network Technology Consumables Pack

(Contains cables and connectors for use by 12 pairs of students at the workstation)

ST680/LS/SL Network Technology eContent Site License

(Contains learning materials for use with, or without, a ClassAct management system. Includes Instructor Guide)

ST680/LS/AL Network Technology Annual License

(Provides one year's access to learning materials via the ClassCampus VLE)

	No.	Average time
Assignments	10	2 hours
Total		20 hours