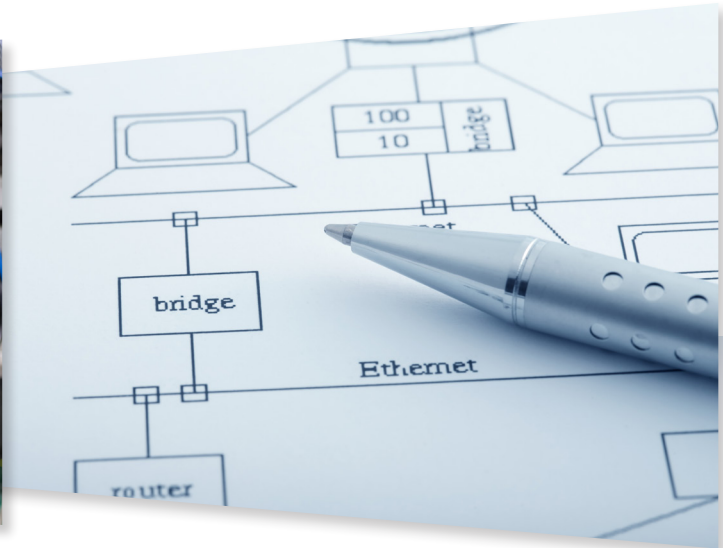


## Unit 8 – Medical Equipment Networking



### Medical Equipment Networking – 3 Days with E-Learning

This course intends to provide learners with an understanding of networking to provide the foundation for graduates to be able to support and maintain networks that integrate medical devices. It includes the theory of networking and the practice of assembling networks of a variety of devices including medical devices. Suitable for all biomedical technicians & engineers, as it does not require any prior networking knowledge.

#### Overview

- Relevant safety and organisational requirements, documentation & legislation
- Patient confidentiality and data security issues
- Introduction to computers and operating systems
- Networking equipment including routers, switches and DHCP Servers
- Networking protocols including TCP/IP
- Wireless networks and telemetry  
Network installation and maintenance
- Medical device integration with networks including protocols such as HL7 and FHIR
- Electronic Medical Records (EMR)
- Network security
- PACS & DICOM

#### Objectives

On successful completion of this unit the candidate will be able to:

- Understand the relevant and current legislative and statutory requirements relating to the unit and understand their role in protecting patient data and data security
- Understand the theoretical principles of the unit
- Understand the basics of computers, operating systems and **networking equipment**
- Understand the **operating principles of networks**
- Install, administer and troubleshoot wired and wireless networks, with and without medical devices
- Understand and troubleshoot networks that integrate medical devices with electronic medical records
- Understand and troubleshoot PACS systems for storing medical imaging data