

IT 003

Networks and Data Communications



Course Aim To provide students with an understanding of Computer Networking and the practical skills to implement and troubleshoot small to medium computer networks. Students will configure networks and manage the routers. Students will be introduced to the fundamental building blocks of a communication system and to a variety of networking technologies.

Short Title Networking 1

Faculty EDICT

Credits 15

Pre-requisites

Co-requisites

Anti-requisites

Version 6

Effective From February 2016

Indicative NQF Level 6

Student Contact hrs 90

Self-directed hrs 60

Other directed hrs 0

Total learning hrs 150

Learning Outcomes

- On successful completion of this course, students will be able to:
- 1 Explain the fundamentals, concepts and technologies of the TCP/IP and OSI networking models.
 - 2 Design and implement an IP addressing scheme using VLSM.
 - 3 Configure, test and verify network devices.
 - 4 Explain how different routing protocols operate in the network.
 - 5 Implement a network infrastructure to a detailed use case.

NQF Sub-strand

Theoretical Understanding
Generic, Problem Solving and Analytical Skills
Practical Application of knowledge
Theoretical Understanding
Generic, Problem Solving and Analytical Skills