Module 1: Design of the structure and type of network: network architecture and physical level.

OSI, 7 levels, services, protocols and interfaces, primitives and types of protocol data units.
Physical means of connection.
Physical layer classification.
Supporting elements of the physical connection

Module 2: Installation and configuration of link-level components.

Structure, functions and link layer protocols.
Medium Access Sublayer. Logical Link Control sublayer.
Types, functions, installation and configuration.
Asíncroono Transfer Mode: ATM.

Module 3: Installation and configuration of the components of the network and transport levels.

The levels of network and transport: functions and protocols.
IP protocol.
Routing tables.
Routing algorithms.
Internet access components from local networks or seasonal.

Module 4: User management, information systems and network resources.

Directory service.
Organizational units.
Domains, trees and forests.
Local groups, global, universal and domain local users.
Equipment. Local and network printers. Print server.

Module 5: Services for the network.

Server and client. Client-server and distributed applications.
DHCP service. WINS service. DNS service.

Module 6: Security and network performance.

Protection against drops and surges. Uninterruptible Power Systems.
Backup and restore the system. Antivirus. Firewall.

IPSes and SSL protocols.
IPSec Tunnel Mode.
IPSec security policies.
Basic Management Protocol (SNMP).
The management information base (MIB).