

**COMPETENCES****AFTER COMPLETING THIS COURSE, STUDENTS WILL BE ABLE TO:**

- C1: Manage network services
- C2: Optimize system performance
- C3: Evaluating hardware devices performance
- C4: Determine computers network infrastructure
- C5: Integrate communications equipment in telematics infrastructures

**COMPETENCES DISTRIBUTION**

COMPETENCE		ESSENTIAL 60% TIME 60% MARK	IDEAL 40% TIME 40% MARK
C1	Manage a LAN in advanced way	x	
	Interconnect LANs using Ethernet technology		x
C2	Optimize system performance	x	
C3	Optimize network configurations	x	
	Assess network configurations		x
C4	Plan LANs using structured cabling	x	
	Design computers networks		x
C5	Integrate devices in a LAN	x	
	Design scalable Network s		x

**CONTENTS**

LAN; WAN  
 OSI; TCP/IP  
 IPv4; IPv6  
 CLIENT SERVER ARCHITECTURE; P2P ARCHITECTURE  
 DHCP; DNS; Gnutella; HTTP; FTP; SMTP  
 ETHERNET; STRUCTURED CABLING  
 SWITCHING; ROUTING  
 TRUNK LINKS  
 ACLs  
 VLMS; CIDR  
 NAT; PAT  
 RIP; OSPF; EIGRP  
 VLAN; VPN  
 WIFI